

# SUNNY ISLAND 4.4M / 6.0H / 8.0H FOR ON-GRID AND OFF-GRID APPLICATIONS



SI4.4M-13 / SI6.0H-13 / SI8.0H-13



## Communicative

- Sunny Portal powered by ennexOS
- State-of-the-art communication via Ethernet and WLAN
- Webconnect
- Optimized data logging

## Reliable

- 10-year warranty
- Very high overload capability
- IP54 for reliable operation in extreme environments

## Flexible

- For use with self-consumption systems, battery backup systems and off-grid systems
- Ideal for retrofits or modular expansions of single- and three-phase systems

- Suitable for all lead-acid batteries and over 20 different lithium-ion batteries

## SUNNY ISLAND 4.4M / 6.0H / 8.0H

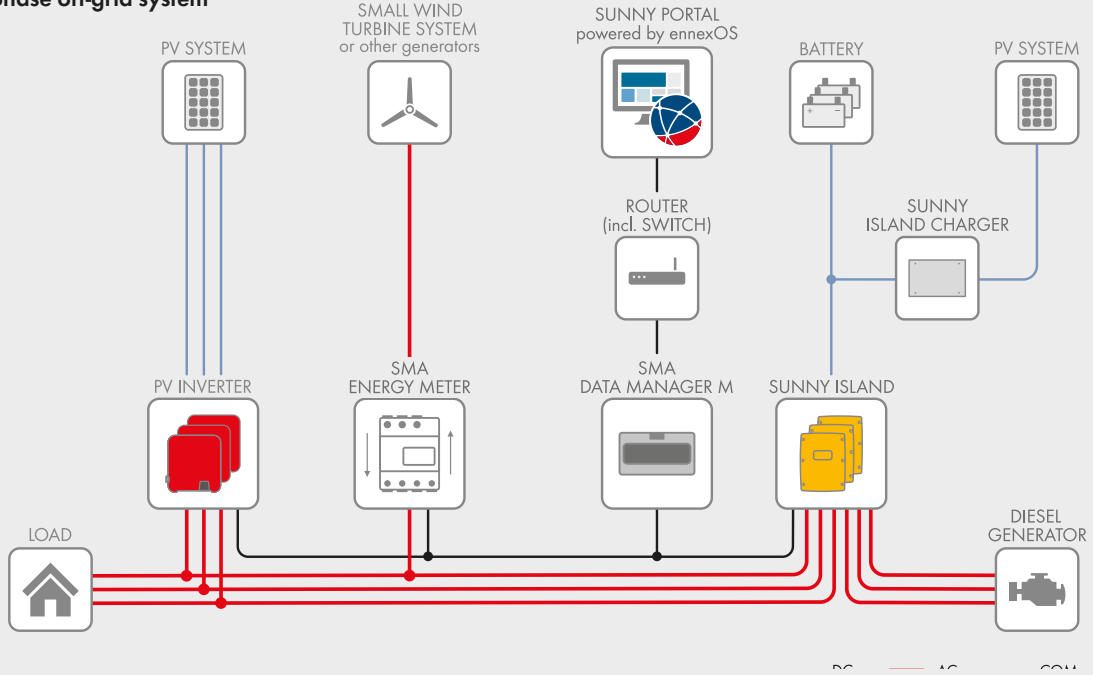
The most reliable all-purpose solution—easier than ever

The Sunny Island battery inverter supports a wide range of on- and off-grid installations with compelling product features—from operation in off-grid areas to home energy management. Users can benefit from SMA's experience in having installed more than 120,000 Sunny Island inverters worldwide. Thanks to its integrated user interface and standard WLAN and Ethernet interfaces, the Sunny Island 4.4M / 6.0H / 8.0H can be immediately and easily configured and monitored via smartphones or tablets. And being a core element in the SMA Flexible Storage System, the Sunny Island temporarily stores self-generated power, thus making it possible to use solar power around the clock.

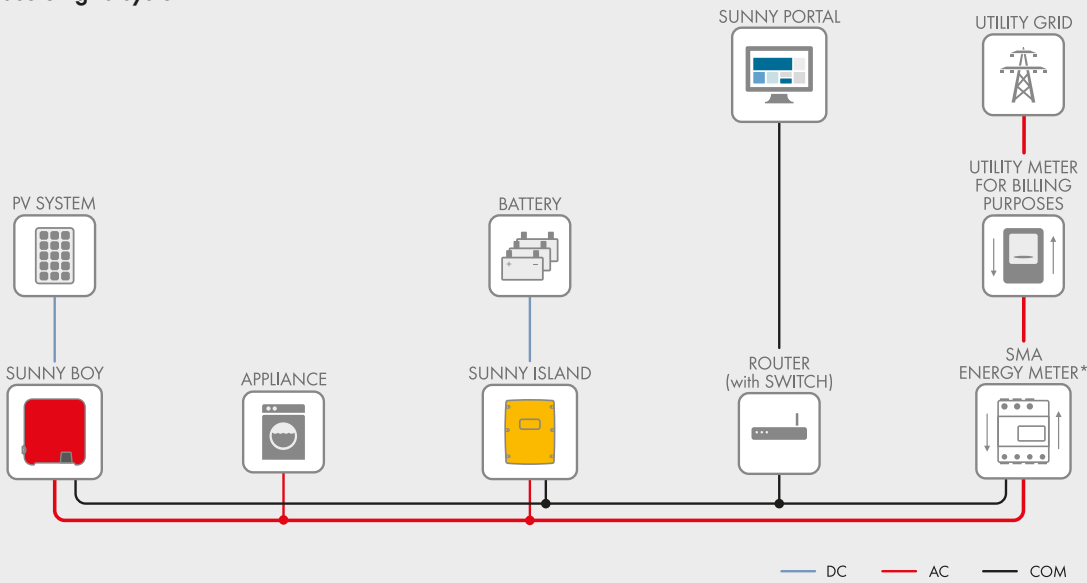
Its high protection class, wide temperature range and exceptional overload capability always provide the kind of reliability needed for off-grid use. Intelligent load and energy management keeps the system running even in critical situations.

The Sunny Island is the ultimate all-purpose solution—and includes a 10-year warranty.

### Three-phase off-grid system

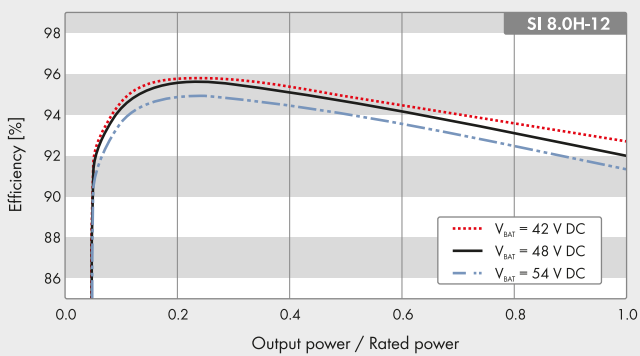


### Single-phase on-grid system

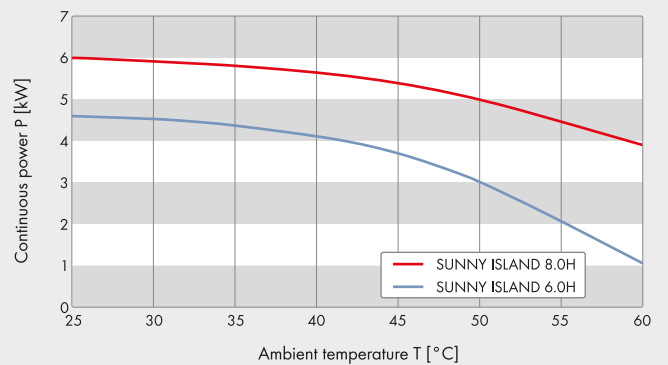


\* Other functions with SMA Energy Meter powered by ennexOS and Sunny Home Manager 2.0 are possible.

### Efficiency curve



### Power-temperature curve



| Technical data  | Sunny Island 4.4M  | Sunny Island 6.0H                             | Sunny Island 8.0H         |
|---|--|---|---------------------------|
| <b>Operation on the utility grid or generator</b>   |  |   |                           |
| Rated grid voltage / AC voltage range   | 230 V / 172.5 V to 264.5 V   |   |                           |
| Rated grid frequency / permitted frequency range  | 50 Hz / 40 Hz to 70 Hz   |   |                           |
| Maximum AC current for increased self-consumption (grid operation)                              | 14.5 A   | 20 A  | 26 A                      |
| Maximum AC power for increased self-consumption (grid operation)                                | 3.3 kVA  | 4.6 kVA                                       | 6 kVA                     |
| Maximum AC input current  | 50 A   | 50 A  | 50 A                      |
| Maximum AC input power  | 11500 W  | 11500 W                                       | 11500 W                   |
| <b>Stand-alone or emergency power operation</b>   |  |   |                           |
| Rated grid voltage / AC voltage range   | 230 V / 202 V to 253 V   |   |                           |
| Rated frequency / frequency range (adjustable)  | 50 Hz / 45 Hz to 65 Hz   |   |                           |
| Rated power (at U <sub>nom</sub> , f <sub>nom</sub> / 25 °C / cos φ = 1)                        | 3300 W   | 4600 W  | 6000 W                    |
| AC power at 25 °C for 30 min / 5 min / 3 sec  | 4400 W / 4600 W / 5500 W   | 6000 W / 6800 W / 11000 W                     | 8000 W / 9100 W / 11000 W |
| AC power at 45 °C continuously  | 3000 W   | 3700 W  | 5430 W                    |
| Rated current / maximum output current (peak)   | 14.5 A / 60 A  | 20 A / 120 A                                  | 26 A / 120 A              |
| Total harmonic distortion output voltage / power factor at rated power                          | < 5% / -1 to +1  | < 1.5% / -1 to +1                             | < 1.5% / -1 to +1         |
| <b>Battery DC input</b>   |  |   |                           |
| Rated input voltage / DC voltage range  | 48 V / 41 V to 63 V  | 48 V / 41 V to 63 V                           | 48 V / 41 V to 63 V       |
| Maximum battery charging current / rated DC charging current / DC discharging current           | 75 A / 63 A / 75 A   | 110 A / 90 A / 103 A                          | 140 A / 115 A / 130 A     |
| Battery type / battery capacity (range)   | Li-Ion <sup>1)</sup> , FLA, VRLA /<br>100 Ah to 10000 Ah (lead-acid)<br>50 Ah to 10000 Ah (li-Ion) |   |                           |
| Charge control  | IUoU charge procedure with automatic full charge and equalization charge                           |   |                           |
| <b>Efficiency / self-consumption of the device</b>  |  |   |                           |
| Maximum efficiency  | 95.5 %   | 95.8 %  | 95.8 %                    |
| No-load consumption / standby   | 18 W / 6.8 W   | 25.8 W / 6.5 W                                | 25.8 W / 6.5 W            |
| <b>Protective devices (equipment)</b>   |  |   |                           |
| AC short-circuit / AC overload  | ● / ●  |   |                           |
| DC reverse polarity protection / DC fuse  | - / -  |   |                           |
| Overtemperature / battery deep discharge  | ● / ●  |   |                           |
| Overvoltage category as per IEC 60664-1   | III  |   |                           |
| <b>General Data</b>   |  |   |                           |
| Dimensions (W / H / D)  | 467 mm / 612 mm / 242 mm (18.4 inches / 21.1 inches / 9.5 inches)                                  |   |                           |
| Weight  | 44 kg (97 lbs)   | 63 kg (138.9 lbs)                             | 63 kg (138.9 lbs)         |
| Operating temperature range   | -25 °C to +60 °C (-13 °F to +14 °F)  |   |                           |
| Protection class as per IEC 62103   | I  |   |                           |
| Climatic category as per IEC 60721  | 3K6  |   |                           |
| Degree of protection according to IEC 60529   | IP54   |   |                           |
| RoHS-III compliant  | ●  |   |                           |
| <b>Features / function</b>  |  |   |                           |
| WLAN, Speedwire / Webconnect / SI-SYSCAN (Multicuster)  | ● / ● / -  | ● / ● / ○                                     | ● / ● / ○                 |
| Direct connection to Sunny Portal via Webconnect  | ●  |   |                           |
| Sunny Portal powered by ennexOS via Energy Meter powered by ennexOS or Data Manager M           | ●  |   |                           |
| Micro SD memory card for extended data logging  | ○  |   |                           |
| Display via smartphone, tablet, laptop / multifunction relay                                    | ● / 2  |   |                           |
| Three-phase systems (including rotating magnetic field) <sup>2)</sup> / battery-backup function | ● / ●  |   |                           |
| State of charge calculation / full charge / equalization charge                                 | ● / ● / ●  |   |                           |
| Battery temperature sensor / data cables  | ○ / ●  |   |                           |
| Certificates and approvals  | www.SMA-Solar.com  |   |                           |
| Cover color yellow / aluminum white   | ○ / ○  |   |                           |
| Warranty 5/10 years   | ● / ● <sup>3)</sup>  |   |                           |
| <b>For off-grid applications</b>  |  |   |                           |
| Switching times for backup operation (without switch box or MC-Box) <sup>4)</sup>               | -  | 0 ms (high impedance) / 20 ms (low impedance) |                           |
| Automatic rotating magnetic field detection / generator support                                 | ● / ●  |   |                           |
| Parallel connection / Multicuster   | - / -  | ● / ●   | ● / ●                     |
| Integrated soft start   | ●  |   |                           |
| <b>Accessories</b>  |  |   |                           |
| <b>For off-grid applications</b>  |  |   |                           |
| Multicuster boxes: MC-BOX-6.3 / MC-BOX-12.3 / MC-BOX-36.3                                       | ○  |   |                           |
| Battery fuse <sup>5)</sup>  | ○  |   |                           |
| Sunny Island Charger: SIC50-MPT <sup>5)</sup> / SI Charger Piggy Back SIC-PB <sup>5)</sup>      | ○ / ○  |   |                           |
| Data Manager M  | ○  |   |                           |
| <b>For on-grid applications</b>   |  |   |                           |
| Sunny Home Manager / SMA Energy Meter powered by ennexOS  | ○ / ○  |   |                           |
| Automatic transfer switch for battery backup <sup>5)</sup>                                      | ○  |   |                           |
| ● Standard feature ○ Optional feature - Not available   |  |   |                           |
| All specifications as of August 2019  |  |   |                           |
| Type designation  | SI4.4M-13  | SI6.0H-13                                     | SI8.0H-13                 |

1) See "List of Approved Batteries" at [www.SMA-Solar.com](http://www.SMA-Solar.com) 2) 3 x Sunny Island 3) When registering, use the information sheet provided or Sunny Portal

4) See "SwitchoverTimeThen-11 | Version 1.1" at [www.SMA-Solar.com](http://www.SMA-Solar.com) 5) Procurement from external suppliers

# SUNNY PORTAL powered by ennexOS

## Energy Balance and System Analysis at a Glance

