

SUNNY ISLAND 3.0M / 4.4M FOR ON-GRID AND OFF-GRID APPLICATIONS



SI3.0M-11 / SI4.4M-11



Flexible

- For self-consumption systems, battery backup systems and off-grid systems
- For single- and three-phase systems from 2 to 13 kW

- All lead-acid batteries and many lithium-ion batteries can be used

Efficient

- Maximum efficiency greater than 95 %
- High efficiency of overall system
- Easy commissioning and installation

Safe and reliable

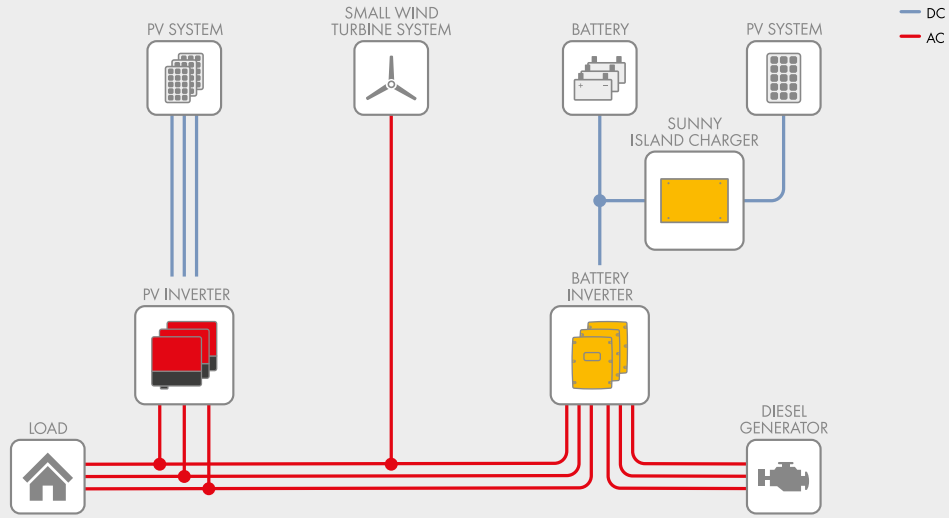
- Proven safety thanks to external certification
- Long battery life thanks to intelligent battery management
- Reliable operation thanks to high overload capacity

SUNNY ISLAND 3.0M / 4.4M

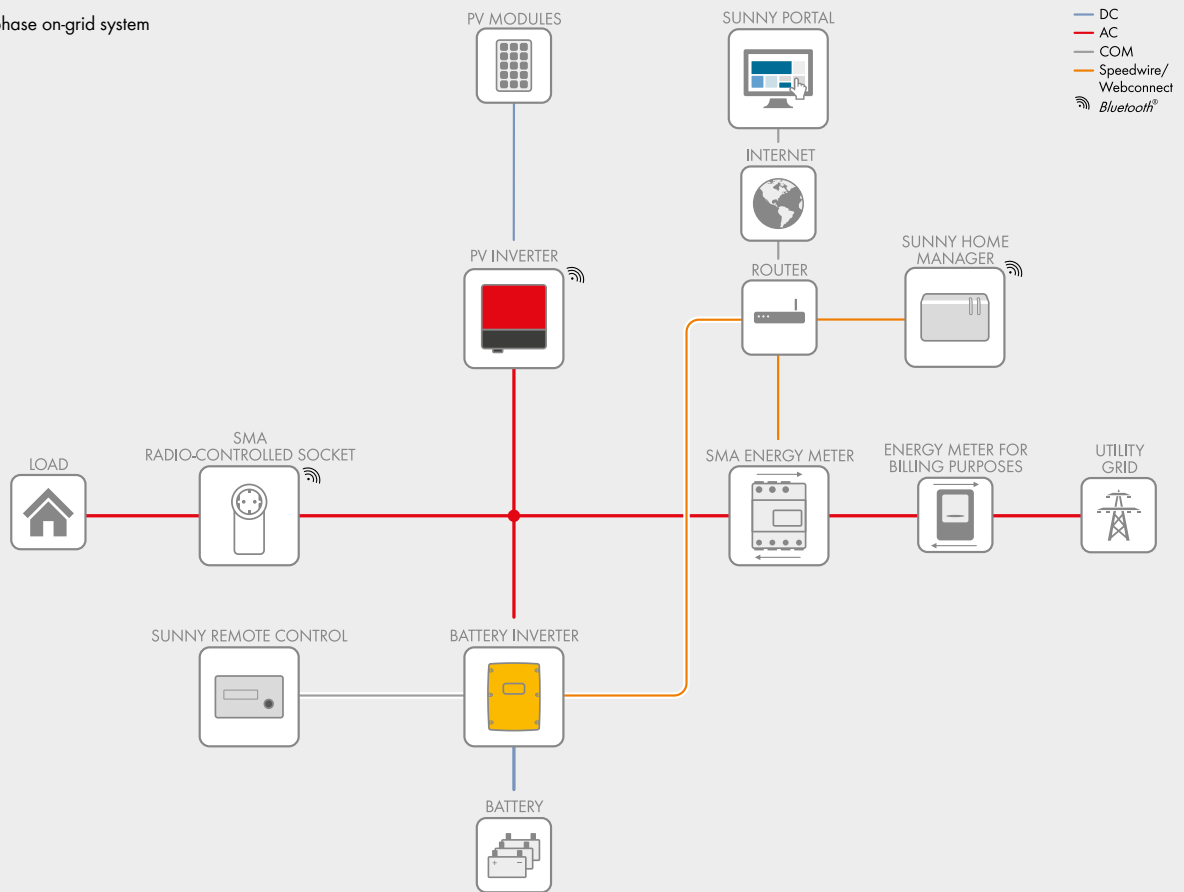
The custom-fit solution for on-grid and off-grid

The Sunny Island 3.0M and 4.4M support a wide range of on-grid and off-grid applications, and both systems have a number of compelling product features. Users benefit from SMA's over 25 years of experience with battery inverter technology. Its high protection class, wide temperature range and overload capacity provide the kind of reliability needed for off-grid use. Intelligent load and energy management keeps the system running even in critical situations. And being a core element in the SMA Flexible Storage System for new and existing PV systems, the Sunny Island system stores generated solar power and works with the Sunny Home Manager to intelligently manage home energy consumption. The quick configuration guide and intuitive user interface help ensure quick and convenient commissioning in any both cases. The new Sunny Island 3.0M and 4.4M systems are the perfect product solutions for stand-alone and grid-connected systems in a power output range of up to 13 kW.

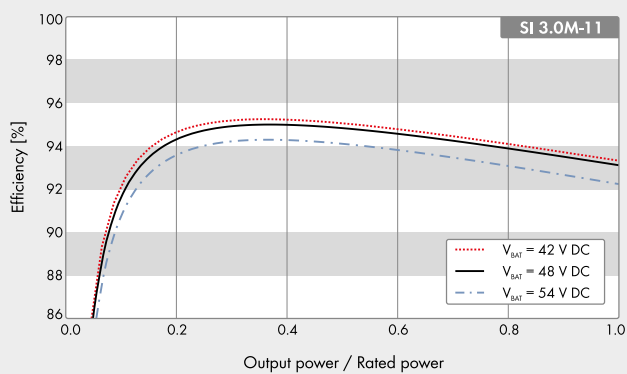
Three-phase off-grid system



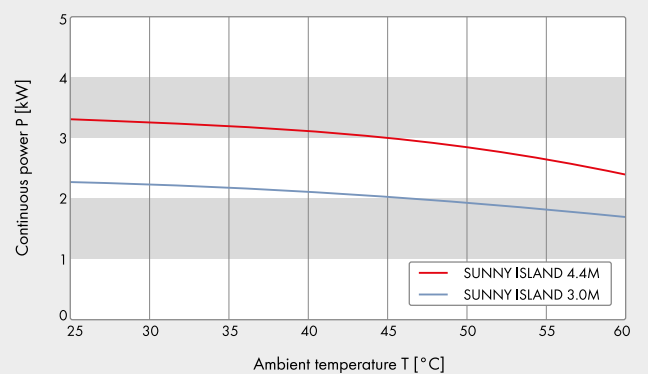
Single-phase on-grid system



Efficiency curve



Power-temperature curve



SUNNY ISLAND 3.0M / 4.4M

| Technical data | Sunny Island 3.0M | Sunny Island 4.4M |
|---|---|---|
| Operation on the utility grid or generator | | |
| Rated input voltage / AC input voltage range | 230 V / 172.5 V ... 264.5 V | 230 V / 172.5 V ... 264.5 V |
| Rated input frequency / permitted input frequency range | 50 Hz / 40...Hz ... 70 Hz | 50 Hz / 40 Hz ... 70 Hz |
| Maximum AC input current | 50 A | 50 A |
| Maximum AC input power | 11,500 W | 11,500 W |
| Stand-alone or emergency power operation | | |
| Rated grid voltage / AC voltage range | 230 V / 202 V ... 253 V | 230 V / 202 V ... 253 V |
| Rated frequency / frequency range (adjustable) | 50 Hz / 45 Hz ... 65 Hz | 50 Hz / 45 Hz ... 65 Hz |
| Rated power (for U_{nom} / f_{nom} / 25°C / $\cos \phi = 1$) | 2,300 W | 3,300 W |
| AC power at 25°C for 30 min / 5 min / 3 s | 3,000 W / 3,500 W / 5,500 W | 4,400 W / 4,600 W / 5,500 W |
| AC power at 45°C continuously | 2,000 W | 3,000 W |
| Rated current / short-circuit current (peak) | 10 A / 60 A | 14.5 A / 60 A |
| THD output voltage / power factor with rated power | < 4.5% / -1 ... +1 | < 4.5% / -1 ... +1 |
| Battery DC input | | |
| Rated input voltage / DC voltage range | 48 V / 41 V ... 63 V | 48 V / 41 V ... 63 V |
| Maximum battery charging current / rated DC charging current / DC discharging current | 51 A / 45 A / 51 A | 75 A / 63 A / 75 A |
| Battery type / battery capacity (range) | Li-ion*, FLA, VRLA / 100 Ah ... 10,000 Ah (lead) 50 Ah ... 10,000 Ah (Li-ion) | Li-ion*, FLA, VRLA / 100 Ah ... 10,000 Ah (lead) 50 Ah ... 10,000 Ah (Li-ion) |
| Charge control | IUoU charge procedure with automatic full charge and equalization charge | IUoU charge procedure with automatic full charge and equalization charge |
| Efficiency / self-consumption | | |
| Maximum efficiency | 95.3% | 95.3% |
| Self-consumption without load / standby | 18 W / 6.8 W | 18 W / 6.8 W |
| Protective devices (equipment) | | |
| AC short-circuit / AC overload | ● / ● | ● / ● |
| DC reverse polarity protection / DC fuse | - / - | - / - |
| Overtemperature / battery deep discharge | ● / ● | ● / ● |
| Oversvoltage category as per IEC 60664-1 | III | III |
| General data | | |
| Dimensions (width x height x depth) | 467 mm x 612 mm x 242 mm (18.4 inches / 24.1 inches / 9.5 inches) | 467 mm x 612 mm x 242 mm (18.4 inches / 24.1 inches / 9.5 inches) |
| Weight | 44 kg (97 lbs) | 44 kg (97 lbs) |
| Operating temperature range | -25°C ... +60°C (-13°F ... +140°F) | -25°C ... +60°C (-13°F ... +140°F) |
| Protection class according to IEC 62103 | I | I |
| Climatic category according to IEC 60721 | 3K6 | 3K6 |
| Degree of protection according to IEC 60529 | IP54 | IP54 |
| Features / function | | |
| Operation and display / multifunction relay | External via SRC-20 / 2 | External via SRC-20 / 2 |
| Three-phase systems / battery backup function | ● / ● | ● / ● |
| State of charge calculation / full charge / equalization charge | ● / ● / ● | ● / ● / ● |
| Integrated soft start / generator support | ● / ● | ● / ● |
| Battery temperature sensor / data cables | ● / ● | ● / ● |
| Certificates and approvals | www.SMA-Solar.com | www.SMA-Solar.com |
| Warranty | 5 years | 5 years |
| Accessories | | |
| For off-grid applications | | |
| Battery cable / battery fuse | ○ / ○ | ○ / ○ |
| Interface SI-COMSMA (RS485) | ○ | ○ |
| Load-shedding contactor / external battery current measurement | ○ / ○ | ○ / ○ |
| Sunny Island Charger SIC50-MPT | ○ | ○ |
| For on-grid applications | | |
| Battery cable / battery fuse | ○ / ○ | ○ / ○ |
| Interface SWDMSI-NR (Speedwire) | ○ | ○ |
| Sunny Home Manager / SMA Energy Meter | ○ / ○ | ○ / ○ |
| Automatic transfer switch for battery backup (procurement via external supplier) | ○ | ○ |
| Type designation | SI3.0M-11 | SI4.4M-11 |
| ● Standard features ○ Optional features – Not available | | |
| Data at nominal conditions | | |
| * from Akasol, Leclanché, LG-Chem, SAFT, Samsung, Sony, Dispatch Energy, Hoppecke | | |
| All specifications as at: August 2014 | | |

SMA Off-Grid Configurator

Design and simulation program for off-grid systems

