

SUNNY ISLAND 6.0H / 8.0H FOR OFF-GRID APPLICATIONS



SI6.0H-11 / SI8.0H-11



Easy to use

- OptiUse: fast installation and commissioning, simplified operation
- OptiBat: state of charge calculation keeps you informed at all times

Robust

- IP 54: optimal protection from dust and humidity
- OptiCool: greater temperature range
- OptiPower: secure operation in any situation

Flexible

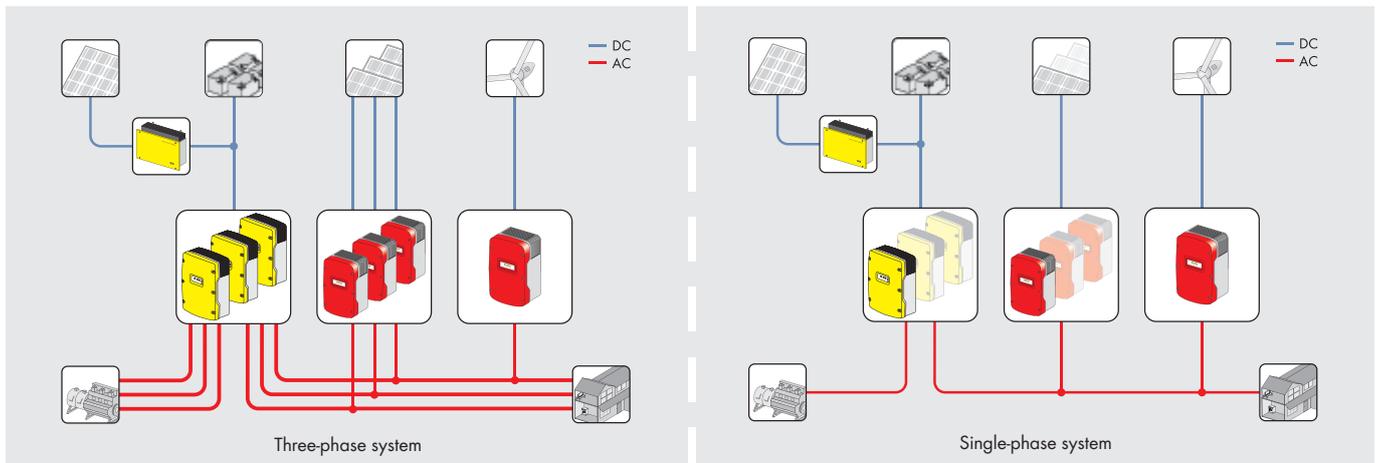
- For systems from 3 to 300 kW
- Precise design
- Supports Multicluster Technology

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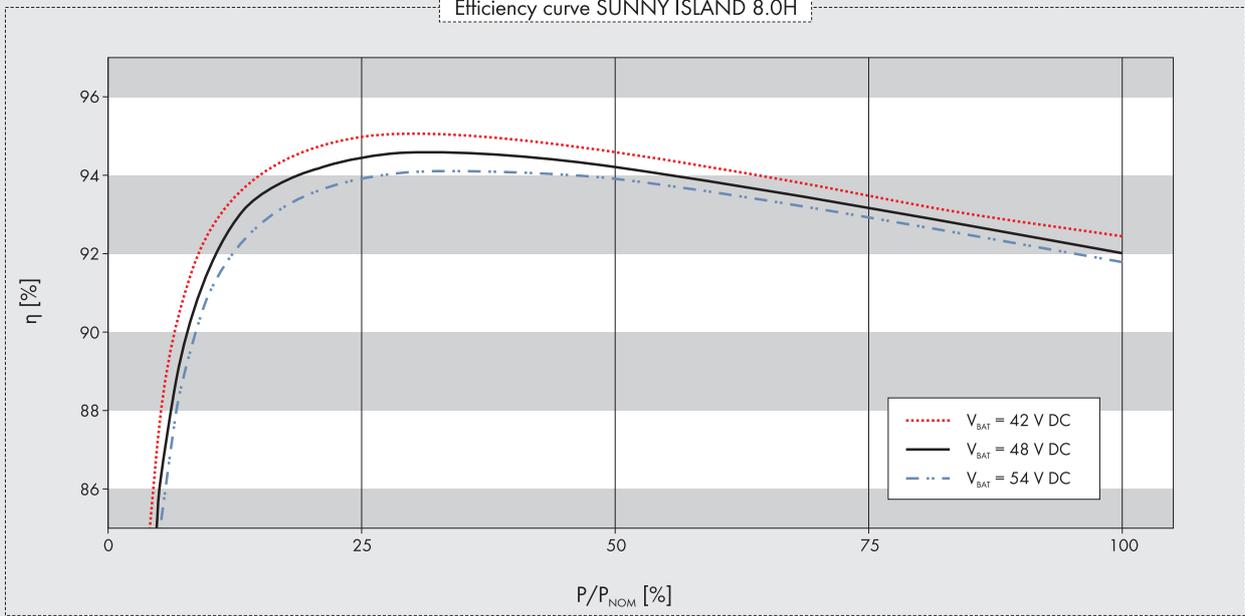
Simple. Robust. Flexible.

More durable than its predecessors: The new Sunny Island impresses with its high protection class and wide temperature range. Moisture, dust and temperature fluctuations won't impair its operation, even after 20 years. Thanks to OptiCool, there's no need to compromise when it comes to overload capacity and economic viability. And there's more: OptiPower, the intelligent load and energy management system, ensures operation even in critical situations. OptiUse makes installation, commissioning and daily use easier than ever with automatic rotary field detection, an optimized quick configuration guide and intuitive operation. And the intelligent OptiBat battery management system automatically controls the most important charging and discharging procedures, which extends the service life of sensitive energy storage. Sunny Island is a truly comprehensive package for a worry-free, reliable and self-sufficient electricity supply.

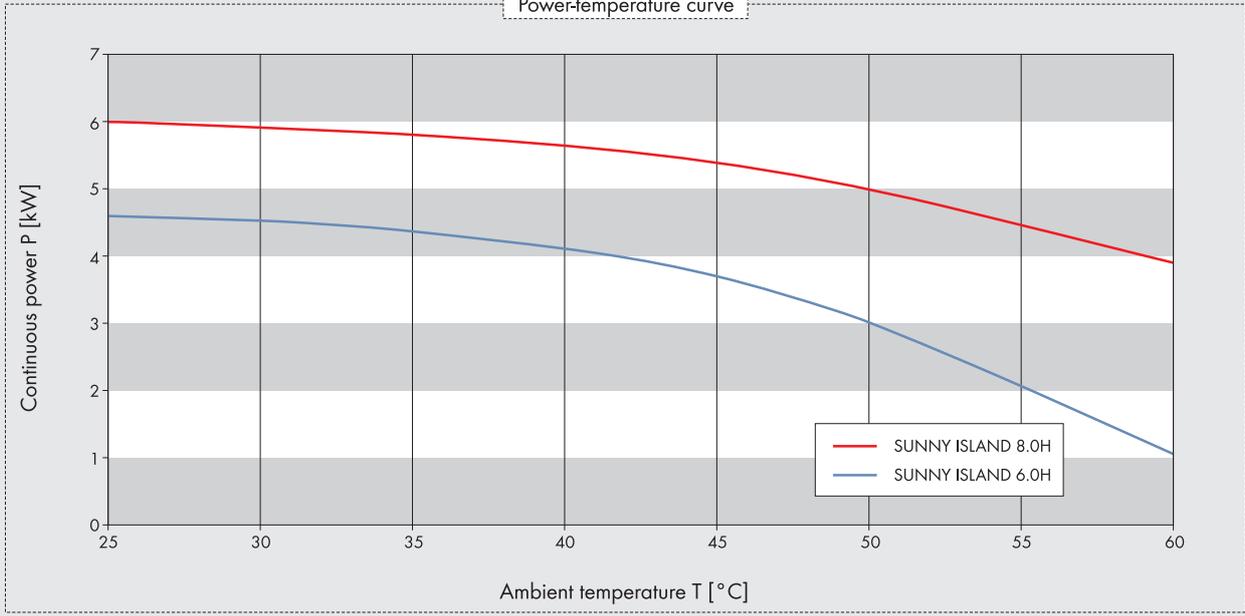
SUNNY ISLAND 6.0H / 8.0H



Efficiency curve SUNNY ISLAND 8.0H



Power-temperature curve



| Technical data | Sunny Island 6.0H | Sunny Island 8.0H |
|---|---|---|
| AC output (loads / stand-alone grid) | | |
| 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 Unom / fnom / 25 °C / cos φ = 1) | 4600 W | 6 000 W |
| AC power at 25 °C for 30 min / 5 min / 3 sec | 6 000 W / 6 800 W / 11 000 W | 8 000 W / 9 100 W / 11 000 W |
| AC power at 45 °C | 3 700 W | 5 430 W |
| Rated current / maximum output current (peak) | 20 A / 120 A | 26 A / 120 A |
| THD output voltage / power factor with rated power | < 4 % / -1 ... +1 | < 4 % / -1 ... +1 |
| AC input (PV array, grid or MC box) | | |
| 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 / allowable 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 |
| 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 | 110 A | 140 A |
| Rated DC charging current / DC discharging current | 90 A / 103 A | 115 A / 136 A |
| Battery type / battery capacity (range) | FLA, VRLA / 100 Ah ... 10 000 Ah | FLA, VRLA / 100 Ah ... 10 000 Ah |
| 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 | 96 % | 96 % |
| Self-consumption without load / standby | < 26 W / < 4 W | < 26 W / < 4 W |
| Protective devices (equipment) | | |
| AC short-circuit / AC overload | ● / ● | ● / ● |
| DC reverse polarity protection / DC fuse | - / - | - / - |
| Overtemperature / battery deep discharge | ● / ● | ● / ● |
| Overvoltage category as per IEC 60664-1 | III | III |
| General data | | |
| Dimensions (width x height x depth) | 467 mm x 612 mm x 242 mm | 467 mm x 612 mm x 242 mm |
| Priority | 63 kg | 63 kg |
| Operating temperature range | -25 °C ... +60 °C | -25 °C ... +60 °C |
| 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 / parallel connection | ● / ● | ● / ● |
| Integrated bypass / multicluster operation | - / ● | - / ● |
| 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 | ● | ● |
| Accessory | | |
| Battery cable / battery fuse | ○ / ○ | ○ / ○ |
| Interface SI-COMSMA (RS485) / SI-SYSCAN (Multicluster) | ○ / ○ | ○ / ○ |
| Extended generator start "GenMan" | ○ | ○ |
| Load-shedding contactor / battery current measurement | ○ / ○ | ○ / ○ |
| Type designation | SI6.0H-11 | SI8.0H-11 |
| ● Standard features ○ Optional features – Not available | | |
| Data at nominal conditions | | |

SMA OFF-GRID CONFIGURATOR

Design and simulation program for off-grid systems

