

**Flexible**

- > For systems from 3 to 100 kW
- > Single-, split- and three-phase operation, connectable in parallel and modularly extendable
- > AC and DC coupling

**Simple**

- > Comfortable commissioning due to "Quick Configuration Guide"
- > Complete off-grid management

**Efficient**

- > High efficiency
- > Intelligent battery management prolongs battery service life
- > Reliable state-of-charge evaluation

**Safe**

- > Extreme overload capability
- > OptiCool
- > 5-year SMA warranty



# SUNNY ISLAND 5048

## Powerful Off-Grid Manager with Innovative Technology

As the central unit of a stand-alone power supply system, battery inverters have many different functions and are often difficult to configure. Yet the Sunny Island 5048 from SMA shows that simplicity is also possible. Fit for systems of 3 to 100 kW, it can be commissioned in a matter of a few minutes. All settings required for operation can be made quickly and simply. The Sunny Island 5048 is flexible in its application, extendable and takes on all control processes. Its first-class battery management ensures the maximum service life of the batteries protecting your investment. In addition, the Sunny Island 5048 features many of the innovative product characteristics which made SMA a winner in a test carried out recently by the German product standards institute "Stiftung Warentest": high efficiency, an ergonomic aluminum housing and its OptiCool ventilation system. The Sunny Island is also available in an UL-compliant 5048U version with an output rating of 120 V and 60 Hz.

# Technical Data

## SUNNY ISLAND 5048 / 5048U

|   | SI 5048   | SI 5048U  |
|---|---|---|
| <b>Output data</b>                              |   |   |
| Nominal AC voltage (adjustable)                 | 230 V (202 - 253 V)   | 120 V (105 - 132 V)   |
| Nominal grid frequency (adjustable)             | 50 / 60 Hz (45 - 65 Hz)   | 60 Hz (55 - 65 Hz)  |
| Continuous AC power at 25 °C / 45 °C            | 5000 / 4000 W   | 5000 / 4000 W   |
| Continuous AC power at 25 °C for 30 / 5 / 1 min | 6500 / 7200 / 8400 W  | 6500 / 7200 / 8400 W  |
| Max. AC power for 3 s                           | 12000 W   | 11000 W   |
| Nominal AC current                              | 21.7 A  | 41.7 A  |
| Max. AC current                                 | 120 A (60 ms)   | 180 A (60 ms)   |
| Output voltage harmonic distortion factor       | < 3 %   | < 3 %   |
| Power factor                                    | -1 to +1  | -1 to +1  |
| <b>Input data</b>                               |   |   |
| Input voltage (range)                           | 230 V (172.5 - 250 V)   | 120 V (80 - 150 V)  |
| Input frequency                                 | 50 / 60 Hz (40 - 70 Hz)   | 60 Hz (54 - 66 Hz)  |
| Max. AC input current (adjustable)              | 56 A (2 - 56 A)   | 56 A (2 - 56 A)   |
| Max. input power                                | 12.8 kW   | 6.7 kW  |
| <b>Battery data</b>                             |   |   |
| Nominal battery Voltage (range)                 | 48 V (41 - 63 V)  | 48 V (41 - 63 V)  |
| Max. battery charging current                   | 120 A   | 120 A   |
| Continuous charging current                     | 100 A   | 100 A   |
| Battery capacity                                | 100 - 10 000 Ah   | 100 - 10 000 Ah   |
| Charge control                                  | IU <sub>0</sub> U with automatic full and equalization charge             | IU <sub>0</sub> U with automatic full and equalization charge             |
| <b>Efficiency/power consumption</b>             |   |   |
| Max. efficiency (typical)                       | 95 %  | 95 %  |
| Own consumption with no load (standby)          | 25 W (< 4 W)  | 25 W (< 4 W)  |
| Protection type (DIN EN 60529)                  | IP30  | NEMA 1  |
| Certification                                   | CE  | UL  |
| Device protection                               | short-circuit, overload, overtemperature                                  | short-circuit, overload, overtemperature                                  |
| Interfaces                                      | 2 LEDs, 4 buttons, 2-line display, 2 multifunction relays, RS485, SD card | 2 LEDs, 4 buttons, 2-line display, 2 multifunction relays, RS485, SD card |
| <b>Mechanical data</b>                          |   |   |
| Width / height / depth                          | 467 / 612 / 235 mm  | 467 / 612 / 235 mm  |
| Weight  | 63 kg   | 63 kg   |
| <b>Ambient conditions</b>                       |   |   |
| Ambient temperature                             | -25 °C ... +50 °C   | -25 °C ... +50 °C   |
| Warranty (EU)                                   | 5 years   | 5 years   |
| <b>Accessories</b>                              |   |   |
| Ext. battery temperature sensor                 | included  | included  |
| "GenMan" generator start manager                | optional  | optional  |
| Multicluster-Box                                | optional  | -   |
| "BatFuse" battery connection box                | optional  | optional  |

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