



Flexible

- For systems from 3 to 300 kW
- 1- and 3-phase operation, connectable in parallel and modularly extendable
- AC and DC coupling

Simple

- Easy commissioning with the "Quick Configuration Guide"
- Complete off-grid management

Efficient

- High efficiency
- Intelligent battery management for maximum battery life
- Reliable state-of-charge calculation

Robust

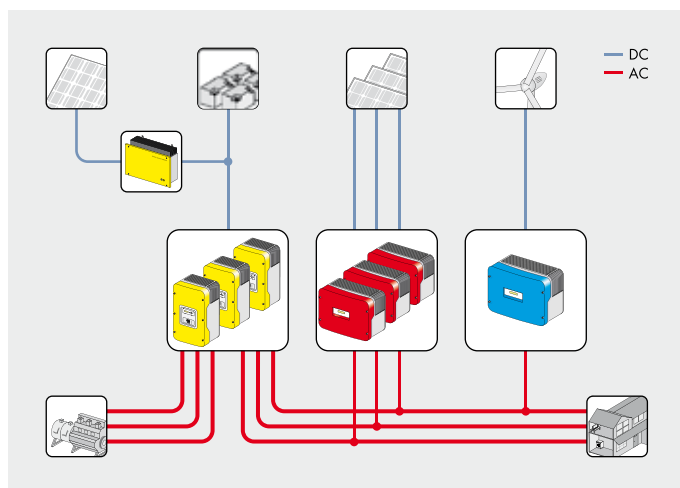
- Extreme overload capability
- OptiCool
- 5-year SMA warranty

SUNNY ISLAND 5048 / 5048-US

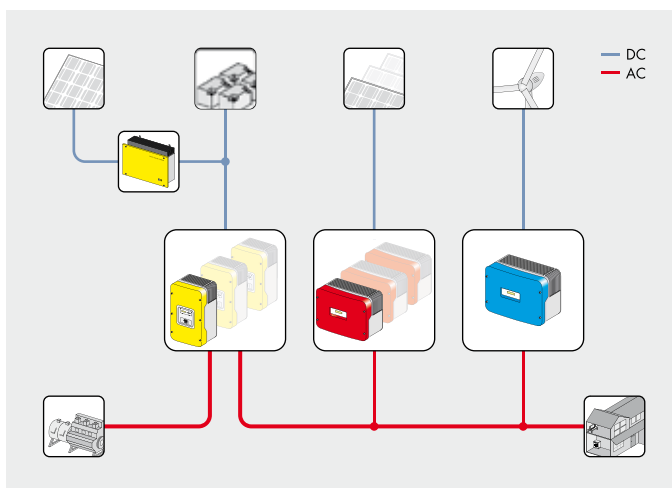
The Island Manager

Commissioning within minutes: the Sunny Island 5048 makes it possible. All required operational settings can be made quickly and easily in just a few steps. The Sunny Island 5048 is flexible in its application, extendable and takes on all control processes. Its first-class battery management ensures maximum battery lifetime. In addition, the device features an impressive high-efficiency, ergonomic die-cast aluminum enclosure and an OptiCool active cooling system. The Sunny Island is also available in a UL-compliant 5048-US version with an output rating of 120 V and 60 Hz for the North American market.

| Technical data | Sunny Island 5048 | Sunny Island 5048-US |
|--|-------------------------------|------------------------------|
| AC output (loads) | | |
| Nominal AC voltage (adjustable) | 230 V (202 V – 253 V) | 120 V (105 V – 132 V) |
| Nominal frequency (adjustable) | 50 Hz / 60 Hz (45 Hz – 65 Hz) | 60 Hz (55 Hz – 65 Hz) |
| Continuous AC power at 25 °C / 45 °C | 5000 W / 4000 W | 5000 W / 4000 W |
| AC output power at 25 °C for 30 min / 1 min / 3 s | 6500 W / 8400 W / 12000 W | 6500 W / 8400 W / 11000 W |
| Nominal AC current / max. AC current (peak) | 21.7 A / 120 A for 60 ms | 41.7 A / 180 A for 60 ms |
| THD output voltage / power factor (cos φ) | < 3 % / – 1 to +1 | < 3 % / – 1 to +1 |
| AC input (generator or grid) | | |
| AC input voltage (range) | 230 V (172.5 V – 264.5 V) | 120 V (80 V – 150 V) |
| AC input frequency (range) | 50 Hz / 60 Hz (40 Hz – 70 Hz) | 60 Hz (54 Hz – 66 Hz) |
| Max. input current (adjustable) / max. input power | 56 A (0 A – 56 A) / 12.8 kW | 56 A (0 A – 56 A) / 6.7 kW |
| Battery DC input | | |
| Battery voltage (range) | 48 V (41 V – 63 V) | 48 V (41 V – 63 V) |
| Max. battery charging current / continuous charging current at 25 °C | 120 A / 100 A | 120 A / 100 A |
| Battery type / battery capacity (range) | lead, NiCd / 100 – 10,000 Ah | lead, NiCd / 100 – 10,000 Ah |
| Charge control | IUoU process | IUoU process |
| Efficiency / operating consumption | | |
| Max. efficiency | 95 % | 95 % |
| Own consumption with no load / standby | 25 W / 4 W | 25 W / 4 W |
| Protection devices | | |
| DC reverse polarity protection / DC fuse | ●/● | ●/● |
| AC short-circuit / AC overload | ●/● | ●/● |
| Overtemperature / excessive battery discharge | ●/● | ●/● |
| General data | | |
| Dimensions (W / H / D) in mm | 467 / 612 / 235 | 467 / 612 / 235 |
| Weight | 63 kg | 63 kg |
| Operating temperature range | –25 °C ... +50 °C | –25 °C ... +50 °C |
| Protection rating (as per IEC 60529) | indoors (IP30) | indoors (NEMA 1) |
| Features / function | | |
| Operation & display / multifunction relays | internal / 2 | internal / 2 |
| 3-phase systems / parallel connection | ●/● | ●/● |
| Integrated bypass / multicuster operation | –/● | –/● |
| State-of-charge calculation / full- / equalization charge | ●/●/● | ●/●/● |
| Integrated soft start / generator support | ●/● | ●/● |
| Battery temperature sensor / communication cables | ●/● | ●/● |
| Warranty: (5 / 10 / 15 / 20 / 25 years) | ●/○/○/○/○ | ●/○/○/○/○ |
| Certificates and permits | www.SMA-Solar.com | www.SMA-Solar.com |
| Accessories | | |
| Battery cables / battery fuses | ○/○ | ○/○ |
| Interfaces (RS485 / Multicuster PB) | ○/○ | ○/○ |
| "GenMan" extended generator start | ○ | ○ |
| Load-shedding contactor / battery current measurement | ○/○ | ○/○ |
| ● Standard features ○ Optional features – Not available | | |
| Last revision: May 2010 | | |
| Type designation | SI 5048 | SI 5048U |



Three-phase system



Single-phase system