



SUNNY ISLAND 6048-US

SI6048-US-10



Efficient

- CEC efficiency of 94%
- State of charge calculation
- Intelligent battery management for maximum battery life
- Now supports external BMS and lithium-ion technology

Simple

- Easy commissioning with the "Quick Configuration Guide"
- Complete off-grid management
- Excellent for grid-tied battery back up
- Easy monitoring via ennexOS Portal

Durable

- Extreme overload capability
- OptiCool™ active temperature management system
- Now with 10-year standard warranty

Flexible

- For systems from 6 to 69 kW
- Single, split-phase and three-phase operation, connectable in parallel and modularly expandable
- AC and DC coupling
- Compatible with lithium ion battery systems

SUNNY ISLAND 6048-US

The proven micro-grid manager

The SMA Sunny Island 6048-US inverter is ideal for off-grid or battery backup operation, scaling up to 23 kW of split-phase continuous power. Easy integration of and robust control features for PV inverters and generators provide for optimal operation with or without grid support. High efficiency provides maximum production and support of external battery management systems provides additional battery flexibility. Usable in split-phase with 2 or 4 inverters (up to 23kW load) or in 208V Wye three-phase systems with 3 inverters (up to 17.3 kW load). Also ideal for larger three-phase loads using the Multicluseter Box US (3, 6, 9, or 12 inverters) for up to 69 kW individual loads.

Technical data	Sunny Island 6048-US	2x Sunny Island 6048-US (120 V / 240 V split-phase)
AC output (loads)		
Rated grid voltage / AC voltage range	120 V/105 V - 132 V	240 V/210 V - 264 V
Rated frequency / frequency range (adjustable)	60 Hz/55 Hz ... 65 Hz	
AC power (at 25 °C / at 40 °C) for 3 hours	6000 W/5000 W	12000 W/10000 W
Rated power (@ U_{nom} , f_{nom} and 25 °C and $\cos \phi = 1$)	5750 W	11500 W
AC power at 25 °C for 30 min / 1 min / 3 s	7000 W / 8400 W / 11000 W	14000 W / 16800 W / 22000 W
Rated current / max. output current (peak)	48 A/180 A for approx. 60 ms	2 x (48 A/180 A for approx. 60 ms)
Total harmonic factor output voltage / power factor with rated power	3 % / -1 ... +1	
AC input (Genset and/or grid)		
Rated input voltage / AC input voltage range	120 V/80 V - 150 V	240 V/160 V - 300 V
Rated input frequency / allowable input frequency range	60 Hz/54 Hz ... 66 Hz	
AC input current	Adjustable between 0 A - 56 A	
Battery DC input		
Rated input voltage / DC voltage range	48 V/41 V - 63 V	
Max. battery charging current / DC rated charging current	130 A / 110 A	260 A / 220 A
Battery type / battery capacity range	Lead, NiCd, Li-ion /100 Ah ... 10000 Ah	
External BMS compatible	●	
Charge control	Fully automatic charge control	
Efficiency / self-consumption		
Max. efficiency / CEC efficiency	96 % / 94 %	
Self-consumption without load / standby	25 W/4 W	2 x (25 W/4 W)
Protective devices		
DC reverse polarity protection / DC fuse	● / ●	
AC short-circuit / AC overload	● / ●	
Overtemperature / battery deep discharge	● / ●	
General data		
Dimensions (W / H / D)	467 / 612 / 235 mm 18.4 / 24.1 / 9.3 inch	2 x (467 / 612 / 235 mm) 2 x (18.4 / 24.1 / 9.3 inch)
Weight	63 kg / 139 lb	2 x (63 kg / 139 lb)
Operating temperature range	-25 °C ... +60 °C / -13 °F ... +140 °F	
Features / function		
Operation and display / multi-function relay	Internal / 2	Internal / 2 x 2
Degree of protection (according to IEC 60529)	Indoors (NEMA 1)	
State of charge calculation / full charge / equalization charge	● / ● / ●	
Integrated soft start / generator support	● / ●	
Battery temperature sensor / data cable	● / ●	
Warranty	10 years	
Certificates and approvals	www.SMA-America.com	
● Standard feature ○ Optional feature – Not available		
Type designation	SI6048-US-10	2 x SI6048-US-10

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