

Battery inverters



Sunny Island 2012



Sunny Island 2224



Sunny Island 3324



Sunny Island 4248



Sunny Island 4248U



Sunny Island 5048



Sunny Island 5048U

Output data:		Sunny Island 2012	Sunny Island 2224	Sunny Island 3324	Sunny Island 4248	Sunny Island 4248U	Sunny Island 5048	Sunny Island 5048U
Nominal AC voltage (adjustable)	$U_{AC, nom}$	230 V (202 - 253 V)	230 V (202 - 253 V)	230 V (202 - 253 V)	230 V (202 - 253 V)	120 V (105 - 132 V)	230 V (202 - 253 V)	120 V (105 - 132 V)
Nominal frequency (adjustable)	f	50 Hz / 60 Hz (45 - 65 Hz)	50 Hz / 60 Hz (45 - 65 Hz)	50 Hz (45 - 55 Hz)	50 Hz (45 - 55 Hz)	60 Hz (55 - 65 Hz)	50 Hz / 60 Hz (45 - 65 Hz)	60 Hz (55 - 65 Hz)
Continuous AC output at 25 °C	P_{nom}	2000 W	2200 W	3300 W	4200 W	4200 W	5000 W	5000 W
Continuous AC output at 45 °C	P_{nom}	1400 W	1600 W	2300 W	3400 W	3400 W	4000 W	4000 W
AC output power for 30 min at 25 °C	P_{30}	2700 W	2900 W	4200 W	5400 W	5400 W	6500 W	6500 W
AC output power for 5 min at 25 °C	P_5	3600 W	3800 W	4400 W	6200 W	6200 W	7200 W	7200 W
AC output power for 1 min at 25 °C	P_1	3600 W	3800 W	5000 W	7000 W	7000 W	8400 W	8400 W
Nominal AC current	$I_{AC, nom}$	8.7 A	9.6 A	14.5 A	18 A	35 A	21.7 A	41.7 A
Max. current (peak / effective)		25 A (approx. 500 ms) / 17 A (2.5 s)	25 A (approx. 500 ms) / 17 A (2.5 s)	70 A (100 ms) / approx. 30 A (2.9 s)	100 A (100 ms) / approx. 50 A (2.9 s)	140 A (5 s)	120 A (approx. 60 ms) / 52 A (3 s)	180 A (approx. 60 ms) / 92 A (3 s)
Output voltage harmonic distortion factor	K_{VAC}	< 4%	< 4%	< 3%	< 3%	< 3%	< 3%	< 3%
Phase shift factor	cos φ	-1 to +1	-1 to +1	-1 to +1	-1 to +1	-1 to +1	-1 to +1	-1 to +1
Input data:								
Nominal voltage (range)	$U_{AC, ext}$	230 V (172.5 - 250 V)	230 V (172.5 - 250 V)	230 V (172.5 - 250 V)	230 V (172.5 - 250 V)	120 V (80 - 150 V)	230 V (172.5 - 250 V)	120 V (80 - 150 V)
Frequency	f_{ext}	50 Hz (40 - 70 Hz)	50 Hz (40 - 70 Hz)	60 Hz (40 - 66 Hz)	60 Hz (40 - 66 Hz)	60 Hz (54 - 66 Hz)	50 Hz (40 - 70 Hz)	60 Hz (54 - 66 Hz)
Max. AC current	$I_{AC, ext}$	25 A	25 A	56 A (2 - 56 A)	56 A (2 - 56 A)	56 A (2 A - 56 A)	56 A (2 A - 56 A)	56 A (2 - 56 A)
Max. continuous output	$P_{AC, ext}$	5.75 kW	5.75 kW	12.8 kW	12.8 kW	6.7 kW	12.8 kW	6.7 kW
Battery data:								
Battery voltage (range)	$U_{bat, nom}$	12 V (10.2 - 15.6 V)	24 V (16.8 - 31.5 V)	24 V (21 - 32 V)	48 V (41 - 63 V)	48 V (41 - 63 V)	48 V (41 - 63 V)	48 V (41 - 63 V)
Max. battery charging current	$I_{bat, max}$	180 A	90 A	140 A	100 A	100 A	120 A	120 A
Continuous charging current	$I_{bat, nom}$	150 A	80 A	104 A	80 A	80 A	100 A	100 A
Battery capacity	C_{bat}	100 - 10000 Ah	100 - 10000 Ah	100 - 6000 Ah	100 - 6000 Ah	100 - 6000 Ah	100 - 10000 Ah	100 - 10000 Ah
Charge control		IUoU process with automatic full and equalization charge	IUoU process with automatic full and equalization charge	IUoU process with automatic full and equalization charge	IUoU process with automatic full and equalization charge	IUoU process with automatic full and equalization charge	IUoU process with automatic full and equalization charge	IUoU process with automatic full and equalization charge
Efficiency / Power consumption:								
Max. efficiency (typical)	η_{max}	93 %	93.6 %	94.5 %	95 %	95 %	95 %	95 %
Operating consumption with no load (standby)		21 W (6 W)	21 W (6 W)	22 W (< 4 W)	22 W (< 4 W)	22 W (< 4 W)	25 W (< 4 W)	25 W (< 4 W)
Certifications:		CE	CE	CE	CE	ETL	CE	UL
Protection rating:		IP 54	IP 54	IP 30	IP 30	NEMA 1 (IP 30)	IP 30 (IP 40 with inserted MMC/SD card)	NEMA 1 (IP 30 (IP 40 with plugged-in MMC/SD card))
Device protection:		short-circuit, overload, overtemperature	short-circuit, overload, overtemperature	short-circuit, overload, overtemperature	short-circuit, overload, overtemperature	short-circuit, overload, overtemperature	short-circuit, overload, overtemperature	short-circuit, overload, overtemperature
Interfaces:		3 multicolored LEDs, 3 buttons 2 multi-function relays RS485 (optional)	3 multicolored LEDs, 3 buttons 2 multi-function relays RS485 (optional)	2 LEDs, 4 buttons two-line display 1 relay for load shedding 1 relay for diesel generator control RS485/RS232 galvanically isolated (optional)	2 LEDs, 4 buttons two-line display 1 relay for load shedding 1 relay for diesel generator control RS485/RS232 galvanically isolated (optional)	2 LEDs, 4 buttons two-line display 1 relay for load shedding 1 relay for diesel generator control RS485/RS232 galvanically isolated (optional)	2 LEDs, 4 buttons two-line display 2 multi-function relays RS485/RS232/CAN galvanically isolated (opt.) MMC/SD card	2 LEDs, 4 buttons, two-line display, 2 multi-function relays RS485/RS232/CAN galvanically isolated (opt.) MMC/SD card
Mechanical data:								
Width x height x depth in mm		470 x 445 x 185	470 x 445 x 185	390 x 590 x 245	390 x 590 x 245	390 x 590 x 245	467 x 612 x 235	467 x 612 x 235
Weight		18 kg	18 kg	approx. 39 kg	approx. 39 kg	approx. 39 kg	approx. 63 kg	approx. 63 kg
Ambient conditions:								
Ambient temperature (operation)		-25 °C to +60 °C	-25 °C to +60 °C	-25 °C to +50 °C	-25 °C to +50 °C	-25 °C to +45 °C	-25 °C to +50 °C	-25 °C to +50 °C
Accessories:								
Ext. battery temperature sensor		Included	Included	Included	Included	Included	Included	Included
"GenMan" generator manager		Optional	Optional	Optional	Optional	Optional	Optional	Optional
Control panel (SCR-1)		Optional (1 per system)	Optional (1 per system)	-	-	-	-	-
Battery backup "Batfuse"		Optional	Optional	Optional	Optional	Optional	Optional	Optional