SUNNY ISLAND

Battery inverter

Sunny Island 2012

Sunny Island 2224

Sunny Island 3324

Sunny Island 4248

Sunny Island 4248-US

Sunny Island 5048

Sunny Island 5048-US

Output data:								
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 Hz–65 Hz)	50 Hz / 60 Hz (45 Hz–65 Hz)	50 Hz (45 Hz–55 Hz)	50 Hz (45 Hz–55 Hz)	60 Hz (55 Hz–65 Hz)	50 Hz / 60 Hz (45 Hz–65 Hz)	60 Hz (55 Hz–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 for 30 min at 25 °C	$P_{30\ min}$	2500 W	2900 W	4200 W	5400 W	5400 W	6500 W	6500 W
AC output for 1 min at 25 °C	$P_{1\ min}$	3800 W	3800 W	5000 W	7000 W	7000 W	8400 W	8400 W
AC output power for 3 s at 25 °C	$P_{3\ sec}$	3800 W	3800 W	7500 W	11000 W	11000 W	12000 W	11000 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)	I_{max}	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. 45 A (2.9 s)	100 A (100 ms) / approx. 70 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)
THD output voltage	K_{VAC}	< 4 %	< 4 %	< 3 %	< 3 %	< 3 %	< 3 %	< 3 %
Phase shift factor	cos j	–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 (172.5–264.5 V)	230 V (172.5–264.5 V)	230 V (172.5–250 V)	230 V (172.5–250 V)	120 V (80–150 V)	230 V (172.5–264.5 V)	120 V (80–150 V)
Frequency	f_{ext}	50 Hz / 60 Hz (40 Hz–70 Hz)	50 Hz / 60 Hz (40 Hz–70 Hz)	50 Hz (40 Hz–60 Hz)	50 Hz (40 Hz–60 Hz)	60 Hz (54 Hz–66 Hz)	50 Hz / 60 Hz (40 Hz–70 Hz)	60 Hz (54 Hz–66 Hz)
Max. AC current	$I_{AC,\ ext}$	25 A	25 A	56 A (2–56 A)	56 A (2–56 A)	56 A (2–56 A)	56 A (0–56 A)	56 A (0–56 A)
Max. continuous power	$P_{AC,\ ext}$	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 (8.4–15.6 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	$I_{Bat,\ nom}$	160 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 %
Own 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
Degree of protection:								
		IP 54	IP 54	IP 30	IP 30	NEMA 1 (IP 30)	IP 30 (IP 40 with inserted SD card)	NEMA 1(IP 30 (IP 40 with inserted 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,	3 multicolored LEDs, 3 buttons,	2 LEDs, 4 buttons,	2 LEDs, 4 buttons,	2 LEDs, 4 buttons,	2 LEDs, 4 buttons,	2 LEDs, 4 buttons,
		2 multi-function relays,	2 multi-function relays,	two-line display	two-line display	two-line display	two-line display	two-line display
		RS485 galvanically insulated (opt.)	RS485 galvanically insulated (opt.)	1 relay for load shedding,	1 relay for load shedding,	1 relay for load shedding,	2 multi-function relays,	2 multi-function relays,
				1 relay for diesel generator control	1 relay for diesel generator control	1 relay for diesel generator control	RS485 galvanically insulated (optional)	RS485 galvanically insulated (optional)
				RS485 galvanically insulated (opt.)	RS485 galvanically insulated (opt.)	RS485 galvanically insulated (opt.)	MMC/SD card	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		19 kg	19 kg	39 kg	39 kg	39 kg	approx. 63 kg	approx. 63 kg
Ambient conditions:								
Ambient temperature (operation)		–25 °C ... +60 °C	–25 °C ... +60 °C	-25 °C ... +50 °C	-25 °C ... +50 °C	–25 °C ... + 50 °C	–25 °C ... +60 °C	-25 °C ... +60 °C
Accessories								
Ext. battery temperature sensor		included	included	included	included	included	included	included
Extended generator start "GenMan"		optional	optional	optional	optional	optional	optional	optional
User interface (SRC-1)		optional (1 per system)	optional (1 per system)	–	–	–	–	–
Battery fuse "BatFuse"		optional	optional	optional	optional	optional	optional	optional

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