

Solar inverters

Did you know about SMA's String Sizing Program?
It's available for free download at www.sma-america.com/



Sunny Boy 700U



Sunny Boy 1800U



Sunny Boy 3000US



Sunny Boy 4000US



Sunny Boy 5000US



Sunny Boy 6000US



Sunny Boy 7000US

DC Input Values	(150 / 200 / 250 Vdc)		(208 / 240 Vac)	(208 / 240 Vac)	(208 / 240 / 277 Vac)	(208 / 240 / 277 Vac)	(208 / 240 / 277 Vac)
Recommended Max. PV Power (Module STC)	640 / 840 / 1000 W	2200 W	3750 W	5000 W	6250 W	7500 W	8750 W
Max. DC Power	510 / 670 / 780 W	1960 W	3250	4300 W	5300 W	6400 W	7500 W
Max. DC Voltage	150 / 200 / 250 V	400 V	500 V	600 V	600 V	600 V	600 V
PV Voltage Range, MPPT	75 - 150 / 100 - 200 / 125 - 200 V	156 - 350 V	180 - 400 / 200 - 400 V	220 - 480 / 250 - 480V	250 - 480 V	250 - 480 V	250 - 480 V
Max. DC Input Current	7 A	12 A	17 A	18 A	21 A	25 A	30 A
DC Voltage Ripple	< 10 %	< 10 %	< 10 %	< 10 %	< 10 %	< 10 %	< 10 %
DC Start Voltage	95 / 125 / 150 V	190 V	228 V	285 V	300 V	300 V	300 V
Number of DC Input Terminals	2	3	2 (Inverter), 4 (DC Disconnect)	2 (Inverter), 4 (DC Disconnect)	3 (Inverter), 4 (AC-DC Disconnect)	3 (Inverter), 4 (AC-DC Disconnect)	3 (Inverter), 4 (AC-DC Disconnect)
GFDI Protection, UL1741	> 1000 mA	> 1000 mA	> 1000 mA	> 1000 mA	> 1000 mA	> 1000 mA	> 1000 mA
Reverse Polarity Protection	Short Circuit Diode	Short Circuit Diode	Short Circuit Diode	Short Circuit Diode	Short Circuit Diode	Short Circuit Diode	Short Circuit Diode
AC Output Values							
Max. AC Power	460 / 600 / 700 W	1800 W	3000 W	3500 / 4000 W	5000 W	6000 W	7000 W
Nominal AC Voltage (Field Configurable)	120 V (N/A)	120 V (N/A)	208 (Yes) / 240 V (Yes)	208 (Yes) / 240 V (Yes)	208 (Yes) / 240 (Yes) / 277 V (Yes)	208 (Yes) / 240 (Yes) / 277 V (Yes)	208 (Yes) / 240 (Yes) / 277 V (Yes)
Total Harmonic Distortion	< 3 %	< 4 %	< 4 %	< 4 %	< 4 %	< 4 %	< 4 %
Allowable Grid Voltage Range, UL1741	106 - 132 V	106 - 132 V	183 - 229 / 211 - 264 V	183 - 229 / 211 - 264 V	183 - 229 / 211 - 264 / 244 - 305 V	183 - 229 / 211 - 264 / 244 - 305 V	183 - 229 / 211 - 264 / 244 - 305 V
Allowable Grid Frequency Range, UL1741	59.3 - 60.5 Hz	59.3 - 60.5 Hz	59.3 - 60.5 Hz	59.3 - 60.5 Hz	59.3 - 60.5 Hz	59.3 - 60.5 Hz	59.3 - 60.5 Hz
Power Factor	0.99 @ Nominal Power	0.99 @ Nominal Power	0.99 @ Nominal Power	0.99 @ Nominal Power	0.99 @ Nominal Power	0.99 @ Nominal Power	0.99 @ Nominal Power
Short-Circuit Protection	Current Controlled	Current Controlled	Current Controlled	Current Controlled	Current Controlled	Current Controlled	Current Controlled
Efficiency							
Max. Efficiency	92.4 / 93.3 / 93.6 %	93.5 %	96.6 %	96.8 %	96.8 %	97.0 %	97.1 %
CEC Efficiency	91.5 %	91.5 %	95.0 / 95.5 %	95.5 / 96.0 %	95.5 / 95.5 / 95.5 %	95.5 / 95.5 / 96.0 %	95.5 / 96.0 / 96.0 %
Communication							
LCD	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Additional Com Boards	RS485 / Radio (and LCD)	RS485 / Radio (or LCD)	RS485 / Radio (and LCD)	RS485 / Radio (and LCD)	RS485 / Radio (and LCD)	RS485 / Radio (and LCD)	RS485 / Radio (and LCD)
Power Consumptions							
Operating Tare Losses	< 4 W	< 7 W	< 7 W	< 7 W	< 7 W	< 7 W	< 7 W
Night-time Tare Losses	0.1 W	0.25 W	0.1 W	0.1 W	0.25 W	0.25 W	0.25 W
Regulatory Compliance							
EMC	FCC, Part 15, Class B	FCC, Part 15, Class B	FCC, Part 15, Class B	FCC, Part 15, Class B	FCC, Part 15, Class B	FCC, Part 15, Class B	FCC, Part 15, Class B
UL Standard	UL1741, UL1998	UL1741, UL1998	UL1741, UL1998	UL1741, UL1998	UL1741, UL1998	UL1741, UL1998	UL1741, UL1998
Enclosure							
Environmental Rating	NEMA 4X	NEMA 4X	NEMA 3R	NEMA 3R	NEMA 3R	NEMA 3R	NEMA 3R
Material	Stainless Steel	Stainless Steel	Aluminum Diecast	Aluminum Diecast	Aluminum Diecast	Aluminum Diecast	Aluminum Diecast
Cooling Method	Convection	Convection	Forced Active Cooling	Forced Active Cooling	Forced Active Cooling	Forced Active Cooling	Forced Active Cooling
Size and Weight							
Size (H x W x D in)	12.6 x 12.7 x 7.1	11.6 x 17.1 x 8.4	13.8 x 17.8 x 9.3	13.8 x 17.8 x 9.3	24.1 x 18.4 x 9.5	24.1 x 18.4 x 9.5	24.1 x 18.4 x 9.5
Weight	35 lbs	60 lbs	88 lbs	88 lbs	143 lbs	143 lbs	143 lbs
Ambient Conditions							
Operating Temperature Range	-25 °C to +45 °C	-25 °C to +45 °C	-25 °C to +45 °C	-25 °C to +45 °C	-25 °C to +45 °C	-25 °C to +45 °C	-25 °C to +45 °C
Relative Humidity	0...100 %, Kl.3K6	0...100 %, Kl.3K6	0...100 %, Kl.3K6	0...100 %, Kl.3K6	0...100 %, Kl.3K6	0...100 %, Kl.3K6	0...100 %, Kl.3K6