



SUNNY BOY

3.0-US / 3.8-US / 5.0-US / 6.0-US / 7.0-US / 7.7-US

The residential PV market is changing rapidly. Your bottom line matters more than ever—so we've designed a superior residential solution to help you decrease costs at every stage of your business operations.

The Sunny Boy join the SMA lineup of field-proven solar technology backed by the world's #1 service team, along with a wealth of improvements. Simple design, improved stocking and ordering, value-driven sales support and streamlined installation are just some of the ways that SMA helps your business operate more efficiently.

And, Sunny Boy's superior integration with the innovative Power+ Solution means installers have even more flexibility in addressing their toughest challenges. Finally, SMA Smart Connected will automatically detect errors and initiate the repair and replacement process so that installers can reduce service calls and save time and money.

TECHNICAL DATA

Input (DC)

Max. PV power
 Max. DC voltage
 Rated MPP voltage range
 MPPT operating voltage range
 Min. DC voltage / start voltage
 Max. operating input current per MPPT
 Max. short circuit current per MPPT
 Number of MPPT tracker

	Sunny Boy 3.0-US		Sunny Boy 3.8-US		Sunny Boy 5.0-US		Sunny Boy 6.0-US		Sunny Boy 7.0-US		Sunny Boy 7.7-US	
	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V
Max. PV power	4800 Wp		6144 Wp		8000 Wp		9600 Wp		11200 Wp		12320 Wp	
Max. DC voltage	600 V		600 V		600 V		600 V		600 V		600 V	
Rated MPP voltage range	155 - 480 V		195 - 480 V		220 - 480 V		220 - 480 V		245 - 480 V		270 - 480 V	
MPPT operating voltage range	100 - 550 V		100 - 550 V		100 - 550 V		100 - 550 V		100 - 550 V		100 - 550 V	
Min. DC voltage / start voltage	100 V / 125 V		100 V / 125 V		100 V / 125 V		100 V / 125 V		100 V / 125 V		100 V / 125 V	
Max. operating input current per MPPT	10 A		10 A		10 A		10 A		10 A		10 A	
Max. short circuit current per MPPT	18 A		18 A		18 A		18 A		18 A		18 A	
Number of MPPT tracker	2 / 1		2 / 1		3 / 1		3 / 1		3 / 1		3 / 1	

Output (AC)

AC nominal power
 Max. AC apparent power
 Nominal voltage / adjustable
 AC voltage range
 AC grid frequency
 Max. output current
 Power factor (cos φ) / harmonics
 Output phases / line connections

	Sunny Boy 3.0-US		Sunny Boy 3.8-US		Sunny Boy 5.0-US		Sunny Boy 6.0-US		Sunny Boy 7.0-US		Sunny Boy 7.7-US	
	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V
AC nominal power	3000 W	3000 W	3330 W	3840 W	5000 W	5000 W	5200 W	6000 W	6660 W	7000 W	6660 W	7680 W
Max. AC apparent power	3000 VA	3000 VA	3330 VA	3840 VA	5000 VA	5000 VA	5200 VA	6000 VA	6660 VA	7000 VA	6660 VA	7680 VA
Nominal voltage / adjustable	208 V / ●	240 V / ●	208 V / ●	240 V / ●	208 V / ●	240 V / ●	208 V / ●	240 V / ●	208 V / ●	240 V / ●	208 V / ●	240 V / ●
AC voltage range	183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V
AC grid frequency	60 Hz / 50 Hz		60 Hz / 50 Hz		60 Hz / 50 Hz		60 Hz / 50 Hz		60 Hz / 50 Hz		60 Hz / 50 Hz	
Max. output current	14.5 A	12.5 A	16.0 A	16.0 A	24.0 A	21.0 A	25.0 A	25.0 A	32.0 A	29.2 A	32.0 A	32.0 A
Power factor (cos φ) / harmonics	1 / < 4 %		1 / < 4 %		1 / < 4 %		1 / < 4 %		1 / < 4 %		1 / < 4 %	
Output phases / line connections	1 / 2		1 / 2		1 / 2		1 / 2		1 / 2		1 / 2	

Output (AC)

AC nominal power
 Max. AC apparent power

	Sunny Boy 3.0-US		Sunny Boy 3.8-US		Sunny Boy 5.0-US		Sunny Boy 6.0-US		Sunny Boy 7.0-US		Sunny Boy 7.7-US	
	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V
AC nominal power	97.2%	97.6%	97.3%	97.6%	97.3%	97.6%	97.3%	97.7%	97.3%	97.9%	97.3%	97.5%
Max. AC apparent power	96.2%	96.3%	96.4%	96.7%	96.7%	96.9%	96.7%	96.9%	96.4%	96.8%	96.4%	96.8%