

**Powerful**

- > Efficiency up to 95.6 %
- > OptiCool active temperature management
- > The best tracking efficiency with OptiTrac MPP tracking

**Safe**

- > Galvanic isolation
- > Integrated ESS DC load-disconnecting unit
- > Rated nominal power at temperatures up to 45 °C

**Flexible**

- > For indoor and outdoor installation
- > Suitable for generator grounding



# SUNNY BOY 3300 / 3800

## The generalist

It is robust, easy-to-handle, and, thanks to its galvanic isolation, used in all kinds of AC grids: the Sunny Boy 3300 / 3800. Due to its suitability for generator grounding, it can be combined with all module types. The generously-proportioned die-cast aluminum housing together with the OptiCool active cooling system guarantee the highest yields and a long service life, even under extreme conditions.

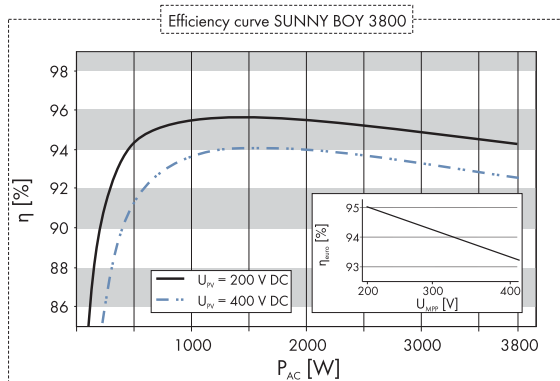
# Technical Data

## SUNNY BOY 3300 / 3800 / 3800/V\*

	SB 3300	SB 3800	SB 3800/V*
<b>Input (DC)</b>			
Max. DC power	3820 W	4040 W	4040 W
Max. DC voltage	500 V	500 V	500 V
PV-voltage range, MPPT	200 V - 400 V	200 V - 400 V	200 V - 400 V
Max. input current	20 A	20 A	20 A
Number of MPP trackers	1	1	1
Max. number of strings (parallel)	3	3	3
<b>Output (AC)</b>			
Nominal AC output	3300 W	3800 W	3680 W
Max. AC power	3600 W	3800 W	3680 W
Max. output current	18 A	18 A	16 A
Nominal AC voltage / range	220 V - 240 V / 180 V - 260 V	220 V - 240 V / 180 V - 260 V	220 V - 240 V / 180 V - 260 V
AC grid frequency (self-adjusting) / range	50 Hz / 60 Hz / $\pm 4.5$ Hz	50 Hz / 60 Hz / $\pm 4.5$ Hz	50 Hz / 60 Hz / $\pm 4.5$ Hz
Phase shift (cos $\phi$ )	1	1	1
AC connection	single-phase	single-phase	single-phase
<b>Efficiency</b>			
Max. efficiency / Euro-Eta	95.2 % / 94.4 %	95.6 % / 94.7 %	95.6 % / 94.7 %
<b>Protection devices</b>			
DC reverse polarity protection	●	●	●
ESS DC load-disconnecting switch	●	●	●
AC short-circuit protection	●	●	●
Ground fault monitoring	●	●	●
Grid monitoring (SMA Grid Guard)	●	●	●
Galvanically isolated	●	●	●
<b>General Data</b>			
Dimensions (W / H / D) in mm	450 / 352 / 236	450 / 352 / 236	450 / 352 / 236
Weight	38 kg	38 kg	38 kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	$\leq 40$ dB(A)	$\leq 42$ dB(A)	$\leq 42$ dB(A)
Consumption: operating (standby) / night	$< 7$ W / 0.1 W	$< 7$ W / 0.1 W	$< 7$ W / 0.1 W
Topology	LF transformer	LF transformer	LF transformer
Cooling concept	OptiCool	OptiCool	OptiCool
Mounting location: indoors / outdoors (IP65)	●/●	●/●	●/●
<b>Features</b>			
DC connection: MC3 / MC4 / Tyco	●/○/○	●/○/○	●/○/○
AC connection: plug connector	●	●	●
LCD	●	●	●
Interfaces: Bluetooth / RS485	○/○	○/○	○/○
Warranty: 5 years / 10 years	●/○	●/○	●/○
Certificates and approvals	www.SMA.de	www.SMA.de	www.SMA.de
Certificate number (please include when ordering)	-	-	V0153

● Standard ○ Optional

Data at nominal conditions - Last update: March 2009  
\*Version for country requirements in accordance with EN 50438 with  $I_{AC} = 16$  A



### Accessories



RS485 interface of type 485PB-NR



Bluetooth Piggy-Back



Grounding-Kit "Positive" ESHV-P-NR



Grounding-Kit "Negative" ESHV-P-NR