



Summary of test results for inverter family: Sunny Boy (with galvanic isolation)

Manufacturer:	SMA Solar Technology AG
Address:	Sonnenallee 1
Postal code, place:	34266 Niestetal
Country:	Germany

Test house details	SMA Solar Technology AG, R&D Department, Niestetal (D)
	Phoenix Testlab, Bloomberg (D)

Type reference:	Max. AC power:	Nominal AC power:	Nominal AC current:
SB 1100	1 100 W	1 000 W	4.4 A
SB 1200	1 200 W	1 200 W	5.2 A
SB 1700	1 700 W	1 550 W	6.7 A
SB 2500	2 500 W	2 300 W	10.0 A
SB 3000	3 000 W	2 750 W	12.0 A
SB 3300	3 600 W	3 300 W	14.5 A
SB 3800	3 800 W	3 800 W	16.5 A

This document contains a summarization of the test results according to:

- Harmonics
- Voltage Fluctuations and Flicker
- DC injection

The complete documentation and the test details are available at SMA (on demand).

SMA Solar Technology AG

Niestetal, 21.04.2011

i. V. Tobias Henne
 Vice President Product Management
 Medium Power Solutions

Test results:

Harmonic current

as per IEC 61000-3-2:2006 tested by SMA Solar Technology AG

	THD	Odd harmonic	Even harmonic
max. value SB 1100	3.02 %	0.37 %	1.21 %
max. value SB 1200	1.42 %	0.45 %	0.37 %
max. value SB 1700	2.16 %	0.56 %	0.78 %
max. value SB 2500	3.26 %	0.10 %	2.01 %
max. value SB 3000	2.39 %	0.28 %	1.27 %
max. value SB 3300	1.00 %	0.42 %	0.45 %
max. value SB 3800	1.14 %	0.42 %	0.47 %

Voltage fluctuation and flicker

as per IEC 61000-3-3:2000 tested by Phoenix Testlab

	Pst
max. value SB 1100	0.341
max. value SB 1200	0.341
max. value SB 1700	0.341
max. value SB 2500	0.269
max. value SB 3000	0.269
max. value SB 3300	0.129
max. value SB 3800	0.129

DC injection

Not tested, because a grid frequency transformer is included. It is international accepted that it is not possible that a DC injection pass a low frequency transformer.

	Technical data of transformer
SB 1100	RK1100 93 V / 230 V, 50 Hz max. output power 1 334 VA
SB 1200	RK1200 65,0V / 230 V, 50 Hz max. output power 1 200 VA
SB 1700	RK1700 93 V / 230 V, 50 Hz max. output power 1 840 VA
SB 2500	RK2200 153 V / 230 V, 50 Hz max. output power 2 530 VA
SB 3000	RK2500 184 V / 230 V, 50 Hz max. output power 2 990 VA
SB 3300	Power Transformer Block 134 V / 230 V, 50 Hz max. output power 3 800 VA
SB 3800	