

SMA Sunny Boy

Flexible pioneers

As the first manufacturer of an inverter suitable for mass production, SMA has concentrated on repeatedly diversifying the implementation possibilities with new technologies, so that today any system constellation from 400 Wp and upwards can be optimally realized with an SMA inverter. SMA develops and manufactures the inverters for a life span of more than 20 years and produces at the company headquarters in Niestetal, near Kassel, Germany.

The choice is yours: with or without transformer

SMA inverters are available with or without transformers. While the transformerless concept offers the ability to use such latest technologies as H5 topology and is also extremely lightweight, the transformer device is the first choice for those who want galvanic isolation. In addition, transformer-based devices offer the best possibilities for combination with thinfilm modules.

The new generation: globally communicative

Just radio where previously cables were required – Bluetooth makes it possible. The Sunny Boys of the new generation are provided with this innovative radio technology. Set for international action: the new Sunny Boy speaks German, English, French, Spanish, Italian, and Greek.

Easy installation of the new Sunny Boy

In addition to its completely new installation and wiring concept, the new Sunny Boy is not only 20 percent lighter, it is also clearly reduced in volume. Installation in a flash on a top hat rail or wall fixture is thus guaranteed. The concept is rounded off by wiring without tools due to special SMA spring-type clamps and effective anti-theft device.












A new generation of electrically isolated inverters: Full of state-of-the-art SMA technology, the Sunny Boy HF delivers the highest yields for inverters with transformers of this performance class.



The new generation of the Sunny Boy series: with Bluetooth and flexible country settings as standard.

GRID-CONNECTED INVERTERS Single-phased





Art. No.	0201404	0201397	0201398	0201399	0201400
					
Model	SMA SB 1200 INT	SMA SB 1700 INT	SMA SB 2100TL INT	SMA SB 2500 INT	SMA SB 3000 INT
MPP voltage range	100 - 320 V	139 - 320 V	125 - 600 V	224 - 480 V	268 - 480 V
Open circuit voltage	400 V	400 V	600 V	600 V	600 V
Max. input current	12.6 A	12 A	11 A	12 A	12 A
Nominal output	1200 W	1550 W	1950 W	2300 W	2750 W
Output voltage	180 - 260 V	180 - 260 V	180 - 260 V	180 - 260 V	180 - 260 V
Power factor cos phi	1	1	1	1	> 0.98
Frequency	50 Hz ±4.5 Hz	50 Hz ±4.5 Hz	50 Hz ±4.5 Hz	50 Hz ±4.5 Hz	50 Hz ±4.5 Hz
Harmonic distortion	< 4 %	< 4 %	< 4 %	< 4 %	< 4 %
Max. efficiency	92.1 %	93.5 %	96.0 %	94.1 %	95.0 %
Euro efficiency	90.7 %	91.8 %	95.2 %	93.2 %	93.6 %
Night-time consumption	0.10 W	0.10 W	0.25 W	0.25 W	0.25 W
Ambient temperature	-25 to +60 °C	-25 to +60 °C	-25 to +60 °C	-25 to +60 °C	-25 to +60 °C
Relative humidity	0 to 98 %, no condensation	0 to 98 %, no condensation	0 to 98 %, no condensation	0 to 95 %, no condensation	0 to 95 %, no condensation
Heat dissipation	Convection	Convection	Convection	Convection	Convection
Protection mode	IP65	IP65	IP65	IP65	IP65
Circuit type	Low frequency transformer, single-phased	Low frequency transformer, single-phased	Transformerless, single-phased	Low frequency transformer, single-phased	Low frequency transformer, single-phased
Grid monitoring	ENS, according to VDE 0126	ENS, according to VDE 0126	ENS, according to VDE 0126	ENS, according to VDE 0126	ENS, according to VDE 0126
Fault current monitoring	Fault current monitoring according to VDE 0126	Fault current monitoring according to VDE 0126	Fault current monitoring according to VDE 0126	Fault current monitoring according to VDE 0126	Fault current monitoring according to VDE 0126
Display	Two-line LC display	Two-line LC display	Two-line LC display	Two-line LC display	Two-line LC display
Casing	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
Dimensions (W / H / D)	434 mm / 295 mm / 214 mm	434 mm / 295 mm / 214 mm	434 mm / 295 mm / 214 mm	434 mm / 295 mm / 214 mm	434 mm / 295 mm / 214 mm
Weight	23 kg	25 kg	16 kg	30 kg	31 kg
Warranty*	5 years	5 years	5 years	5 years	5 years
Norms	CE mark, VDE 0126, G83	CE mark, VDE 0126, G83	CE mark, VDE 0126, G83	CE mark, VDE 0126, G83	CE mark, VDE 0126, G83

Art. No.	0201401	0201403	0201026	0201027
				
Model	SMA SB 3300 INT	SMA SB 3800 INT	SMA SB 3000TL-20	SMA SB 4000TL-20
MPP voltage range	200 - 400 V	200 - 400 V	188 - 440 V	175 - 440 V
Open circuit voltage	500 V	500 V	550 V	550 V
Max. input current	20 A	20 A	1 x 17 A	2 x 15 A
Nominal output	3300 W	3800 W	3000 W	4000 W
Output voltage	180 - 260 V	180 - 260 V	180 - 280 V	180 - 280 V
Power factor cos phi	> 0.98	> 0.98	1	1
Frequency	50 Hz ±4.5 Hz	50 Hz ±4.5 Hz	50 Hz ±4.5 Hz	50 Hz ±4.5 Hz
Harmonic distortion	< 4 %	< 4 %	< 4 %	< 4 %
Max. efficiency	95.2 %	95.6 %	97.0 %	97.0 %
Euro efficiency	94.4 %	94.7 %	96.3 %	96.4 %
Night-time consumption	0.25 W	0.25 W	0.20 W	0.20 W
Ambient temperature	-25 to +60 °C	-25 to +60 °C	-25 to +60 °C	-25 to +60 °C
Relative humidity	0 to 95 %, no condensation	0 to 95 %, no condensation	0 to 98 %, no condensation	0 to 98 %, no condensation
Heat dissipation	OptiCool fan	OptiCool fan	OptiCool fan	OptiCool fan
Protection mode	IP65	IP65	IP65	IP65
Circuit type	Low frequency transformer, single-phased	Low frequency transformer, single-phased	Transformerless, single-phased	Transformerless, single-phased
Grid monitoring	ENS, according to VDE 0126	ENS, according to VDE 0126	SMA Grid guard 2	SMA Grid guard 2
Fault current monitoring	Fault current monitoring according to VDE 0126	Fault current monitoring according to VDE 0126	Fault current monitoring according to VDE 0126	Fault current monitoring according to VDE 0126
Display	Two-line LC display	Two-line LC display	Graphic LC display	Graphic LC display
Casing	Aluminium	Aluminium	Aluminium	Aluminium
Dimensions (W / H / D)	450 mm / 352 mm / 236 mm	450 mm / 352 mm / 236 mm	470 mm / 445 mm / 180 mm	470 mm / 445 mm / 180 mm
Weight	41 kg	41 kg	25 kg	25 kg
Warranty*	5 years	5 years	5 years	5 years
Norms	CE mark, VDE 0126, G83	CE mark, VDE 0126, G83	CE mark, VDE 0126, G83	CE mark, VDE 0126, G83

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Single-phased GRID-CONNECTED INVERTERS

Art. No.	0201028	0201118	0201119	0201120
				
Model	SMA SB 5000TL-20	SMA SB 2000HF-30	SMA SB 2500HF-30	SMA SB 3000HF-30
MPP voltage range	175 - 440 V	175 - 560 V	175 - 560 V	210 - 560 V
Open circuit voltage	550 V	700 V	700 V	700 V
Max. input current	2 x 15 A	12 A	15 A	15 A
Nominal output	4600 W	2000 W	2500 W	3000 W
Output voltage	180 - 280 V	180 - 280 V	180 - 280 V	180 - 280 V
Power factor cos phi	1	1	1	1
Frequency	50 Hz ±4.5 Hz	50 Hz ±4.5 Hz	50 Hz ±4.5 Hz	50 Hz ±4.5 Hz
Harmonic distortion	< 4 %	< 4 %	< 4 %	< 4 %
Max. efficiency	97.0 %	96.3 %	96.3 %	96.3 %
Euro efficiency	96.5 %	95.0 %	95.3 %	95.4 %
Night-time consumption	0.20 W	0.25 W	0.25 W	0.25 W
Ambient temperature	-25 to +60 °C	-25 to +60 °C	-25 to +60 °C	-25 to +60 °C
Relative humidity	0 to 98 %, no condensation	0 to 98 %, no condensation	0 to 98 %, no condensation	0 to 98 %, no condensation
Heat dissipation	OptiCool fan	OptiCool fan	OptiCool fan	OptiCool fan
Protection mode	IP65	IP65	IP65	IP65
Circuit type	Transformerless, single-phased	High frequency transformer, single-phased	High frequency transformer, single-phased	High frequency transformer, single-phased
Grid monitoring	SMA Grid guard 2	ENS, according to VDE 0126	ENS, according to VDE 0126	ENS, according to VDE 0126
Fault current monitoring	Fault current monitoring according to VDE 0126	Fault current monitoring according to VDE 0126	Fault current monitoring according to VDE 0126	Fault current monitoring according to VDE 0126
Display	Graphic LC display	Graphic LC display	Graphic LC display	Graphic LC display
Casing	Aluminium	Aluminium	Aluminium	Aluminium
Dimensions (W / H / D)	470 mm / 445 mm / 180 mm	348 mm / 580 mm / 145 mm	348 mm / 580 mm / 145 mm	348 mm / 580 mm / 145 mm
Weight	25 kg	17 kg	17 kg	17 kg
Warranty*	5 years	5 years	5 years	5 years
Norms	CE mark, VDE 0126, G83	CE mark, VDE 0126	CE mark, VDE 0126	CE mark, VDE 0126

* - Can optionally be extended to 10 / 15 / 20 / 25 years



