

SUNNY BOY 3.0 / 3.6 / 4.0 / 5.0

With SMA SMART CONNECTED



SB3.0-1 AV-40 / SB3.6-1 AV-40 / SB4.0-1 AV-40 / SB5.0-1 AV-40



What's new:
The complete solution for
100% ease and comfort

SMA Smart Connected

- Automatic inverter monitoring by SMA Service
- Investment security thanks to minimized downtimes and compensation, when applicable

Easy installation

- Secure plug-and-play installation without opening the inverter
- Easy commissioning via smartphone or tablet
- Integrated export control with SMA Energy Meter

Everything at a glance

- Direct access to inverter performance via smartphone or tablet
- Free online monitoring via Sunny Places

Future-proof

- Communication via Ethernet and WLAN
- Upgrade with SMA energy storage and Smart Home solutions at any time

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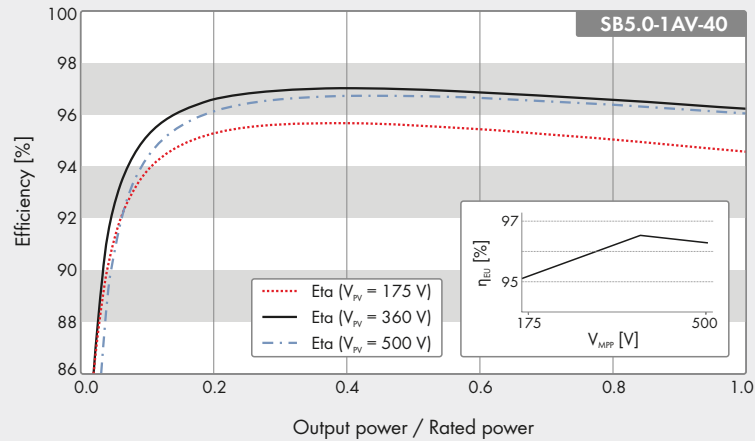
More than an inverter. Smaller, simpler and more convenient with SMA Smart Connected

The new Sunny Boy 3.0 - 5.0 succeeds the world's most installed residential string inverter, the Sunny Boy 3000 - 5000TL. It is more than just a PV inverter: delivered with SMA Smart Connected service, it is a complete package that offers PV system owners and installers true comfort and ease. The automatic inverter monitoring by SMA analyzes operation, reports irregularities and minimizes downtime.

In 3 kW to 5 kW power classes, the Sunny Boy is ideally suited to solar power generation in private homes. Thanks to its extremely light design and the modern user interface, the device can be easily and quickly installed. Current communication standards make the inverter future-proof, meaning SMA storage solutions and SMA Smart Home can be added at any time.

The world-leading Sunny Boy 3.0-5.0 provides PV system owners and installers with 100% ease and comfort.

Efficiency curve



Technical data	Sunny Boy 3.0	Sunny Boy 3.6	Sunny Boy 4.0	Sunny Boy 5.0
Input (DC)				
Max. DC power (at cos φ = 1)	3200 W	3880 W	4200 W	5250 W ¹⁾
Max. input voltage	600 V			
MPP voltage range	110 V to 500 V	130 V to 500 V	140 V to 500 V	175 V to 500 V
Rated input voltage	365 V			
Min. input voltage / initial input voltage	100 V / 125 V			
Max. input current input A / input B	15 A / 15 A			
Max. input current per string input A / input B	15 A / 15 A			
Number of independent MPP inputs / strings per MPP input	2 / A:2; B:2			
Output (AC)				
Rated power (at 230 V, 50 Hz)	3000 W	3680 W	4000 W	5000 W ²⁾
Max. apparent AC power	3000 VA	3680 VA	4000 VA	5000 VA ²⁾
Nominal AC voltage / range	220 V, 230 V, 240 V / 180 V to 280 V			
AC power frequency / range	50 Hz, 60 Hz / -5 Hz to +5 Hz			
Rated power frequency / rated grid voltage	50 Hz / 230 V			
Max. output current	16 A	16 A	22 A ³⁾	22 A ³⁾
Power factor at rated power	1			
Adjustable displacement power factor	0.8 overexcited to 0.8 underexcited			
Feed-in phases / connection phases	1 / 1			
Efficiency				
Max. efficiency / European efficiency	97% / 96.4%	97% / 96.5%	97% / 96.5%	97% / 96.5%
Protective devices				
Input-side disconnection point	●			
Ground fault monitoring / grid monitoring	● / ●			
DC reverse polarity protection / AC short circuit capability / galvanically isolated	● / ● / -			
All-pole sensitive residual-current monitoring unit	●			
Protection class (as per IEC 62103) / overvoltage category (as per IEC 60664-1)	I / III			
General data				
Dimensions (W / H / D)	435 mm / 470 mm / 176 mm (17.1 inches / 18.5 inches / 6.9 inches)			
Weight	16 kg (35.3 lb)			
Operating temperature range	-25 °C to +60 °C (-13 °F to +140 °F)			
Noise emission, typical	25 dB(A)			
Self-consumption (at night)	1.0 W			
Topology	Transformerless			
Cooling method	Convection			
Degree of protection (according to IEC 60529)	IP65			
Climatic category (according to IEC 60721-3-4)	4K4H			
Max. permissible value for relative humidity (non-condensing)	100%			
Features				
DC connection / AC connection	SUNCLIX / AC connector			
Display via Smart Phone, Tablet, Laptop	●			
Interfaces: WLAN, Speedwire/Webconnect	● / ●			
Warranty: 5 / 10 years	● / ○			
Certificates and approvals (more available upon request)	AS 4777, C10/11, CE, CEI 0-21, EN 50438, G59/3, G83/2, IEC 61727, NEN-EN50438, NRS 097-2-1, PPC, PPDS, RD1699, RD 661, SI 4777, UTE C15-712, VDE-AR-N 4105, VDE0126-1-1, VFR 2014			
● Standard features ○ Optional features - Not available				
Data at nominal conditions				
Last revision: May 2016				
1) 4825 W with VDE-AR-N 4105				
2) 4600 W / 4600 VA with VDE-AR-N 4105				
3) AS 4777: 21.7 A				
Type designation	SB3.0-1AV-40	SB3.6-1AV-40	SB4.0-1AV-40	SB5.0-1AV-40