

# SUNNY BOY 3.0 / 3.6 / 4.0 / 5.0 / 6.0 with SMA SMART CONNECTED



SB3.0-1AV-41 / SB3.6-1AV-41 / SB4.0-1AV-41 / SB5.0-1AV-41 / SB6.0-1AV-41



**SMA ShadeFix**  
STRING LEVEL OPTIMIZATION

Premium monitoring service  
**SMA SMART CONNECTED**



## Compact

- One-person installation due to low weight of 17.5 kg
- Compact design means minimum space requirements

## Easy to use

- 100% plug and play installation
- Free online monitoring via SMA Energy App
- Automated service thanks to SMA Smart Connected
- Warranty extension from 5 to 10 years – free of charge

## High yields

- Use of surplus energy through dynamic active power limitation
- Yield increase without installation effort due to integrated shade management SMA ShadeFix









## Combinable

- Intelligent energy management and storage solutions can be added anytime
- Can be expanded with SMA Power Limiter for use of a ripple control receiver

## SUNNY BOY 3.0 / 3.6 / 4.0 / 5.0 / 6.0

Higher yields for private homes – intelligent solar power generation

The new Sunny Boy 3.0–6.0 ensures maximum energy yields for private homes. This inverter combines the integrated Service SMA Smart Connected service and intelligent technology for all ambient requirements. Thanks to its extremely light design, the device can be installed quickly and easily. The Sunny Boy can be commissioned quickly via smartphone or tablet thanks to its integrated web interface. For specific requirements on the roof, SMA ShadeFix maximizes the PV system's yield. Current communication standards make the inverter future-proof, meaning intelligent energy management solutions as well as SMA storage solutions can be flexibly added anytime.

Technical data	Sunny Boy 3.0	Sunny Boy 3.6	Sunny Boy 4.0	Sunny Boy 5.0	Sunny Boy 6.0
Input (DC)					
Max. generator power	5500 Wp	5500 Wp	7500 Wp	7500 Wp	9000 Wp
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	210 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. DC short-circuit current input A / input B	20 A / 20 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 <sup>1)</sup>	6000 W
Rated / Max. apparent power	3000 VA / 3000 VA	3680 VA / 3680 VA	4000 VA / 4000 VA	5000 VA <sup>1)/</sup> 5000 VA <sup>1)</sup>	6000 VA / 6000 VA
Rated voltage / range	220 V, 230 V, 240 V / 180 V to 280 V				
Power frequency / range	50 Hz, 60 Hz / -5 Hz to +5 Hz				
Rated power frequency / rated grid voltage	50 Hz / 230 V				
Rated / Max. output current	13.1 A / 13.7 A	16 A / 16 A	17.4 A / 18.2 A	22 A / 22.8 A	26.1 A / 26.1 A
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	97.0% / 96.4%	97.0% / 96.5%	97.0% / 96.5%	97.0% / 96.5%	97.0 % / 96.6 %
Protective devices					
Input-side disconnection point					
Ground fault monitoring / grid monitoring					
DC reverse polarity protection / AC short circuit current capability / galvanically isolated					
All-pole-sensitive residual-current monitoring unit					
Protection class (as per IEC 61140) / overvoltage category (according to 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	17.5 kg (38.5 lb)				
Operating temperature range	-25°C to +60°C (-13°F to +140°F)				
Noise emission, typical	25 dB(A)				
Self-consumption (at night)	5.0 W				
Topology	Transformerless				
Cooling method	Convection				
Degree of protection (as per IEC 60529)	IP65				
Climatic category (as per IEC 60721-3-4)	4K4H				
Max. permissible value for relative humidity (non-condensing)	100%				
Equipment					
DC connection / AC connection	SUNCLIX / AC connector				
Display via smartphone, tablet, laptop					
Interfaces: WLAN / Ethernet / RS485					
Communication protocols	Modbus (SMA, Sunspec), Webconnect, SMA Data				
Shade management: integrated SMA ShadeFix					
Warranty: 5 / 10 / 15 years					
Certificates and approvals (more available upon request)	AS 4777.2, C10/11, CE, CEI 0-21, Dansk Energi DK1/2, DEWA, DIN EN 62109 / IEC 62109, EN 50438, EN 50549-1, G98/1, G99/1, IEC 61727, IEC 62116, IE-EN50438, NBR16149, NEN-EN50438, NRS 097-2-1, NT_Ley20.571, ÖVE/ÖNORM E 8001-4-712 & TOR Erzeuger Typ A, PPC, PPDS, RD1699, RfG compliant, SI4777, UTE C15-712, VDE0126-1-1, VDE-AR-N 4105, VFR 2014				
Country availability of SMA Smart Connected	AU, AT, BE, CH, DE, ES, FR, IT, LU, NL, UK				
Type designation	SB3.0-1AV-41	SB3.6-1AV-41	SB4.0-1AV-41	SB5.0-1AV-41	SB6.0-1AV-41