

# Sunny Boy

SB 1100LV



Optimized for low input voltages

Suitable for special applications, e.g. connecting hydropower systems or small wind turbines to the grid

Outstandingly high efficiency for low input voltages

SMA grid guard<sup>®</sup> 2:  
Automatic disconnection

Diagnosis and communication via Powerline, radio and cable (RS232 or RS485)

Extended temperature range of -25 °C to +60 °C

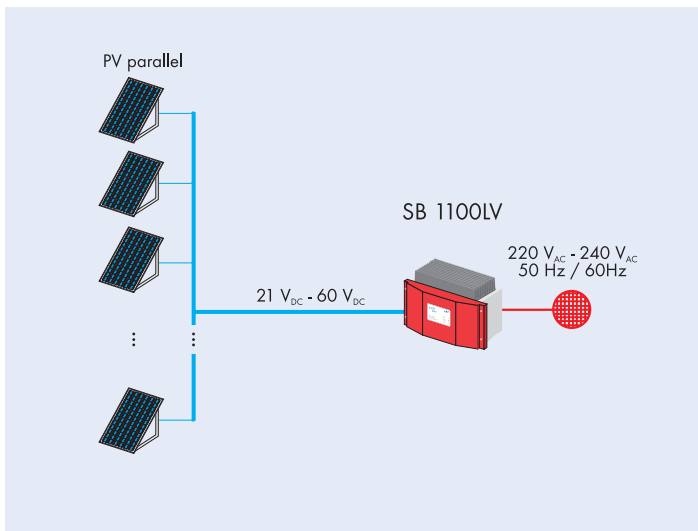
IP65 protection class, also suitable for outdoor installation

Automatic 50 Hz / 60 Hz grid frequency detection

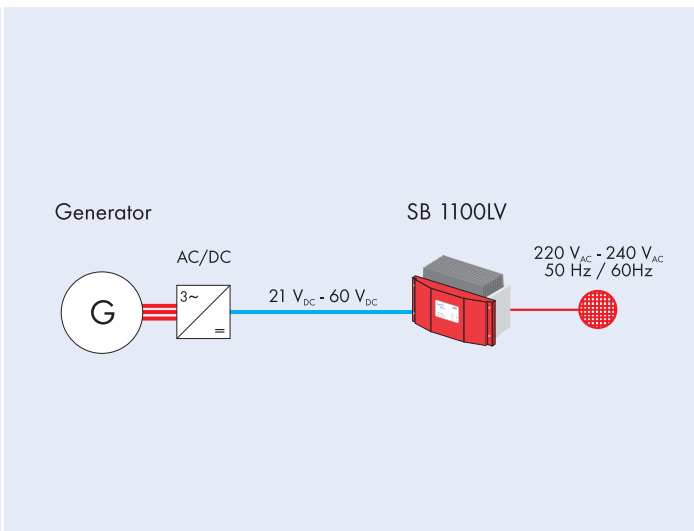
5 year SMA warranty

The SB 1100LV is specially designed for low DC input voltages of 21 V to 60 V and is therefore an optimal inverter for special PV systems with modules connected in parallel or other special applications.

A peak efficiency of 92 %, which is excellent for this input voltage range, makes the SB 1100LV a powerful member of the Sunny Boy family.



Switching example SB 1100LV:  
PV modules connected in parallel



Switching example SB 1100LV:  
inverters for special applications, e.g. generators

## Technical data

	SB 1100LV
<b>Input data</b>	
Max. DC output	1240 W
DC voltage range	21 V - 60 V
Nominal DC operating voltage ( $U_{PV, nenn}$ )	25 V
Max. MPP voltage ( $U_{MPP, max}$ )	60 V
Max. DC voltage ( $U_{DC, max}$ )	60 V
Max. input current ( $I_{PV, max}$ )	62 A
DC voltage ripple ( $U_{SS}$ )	< 10 %
Max. no. of strings (parallel)	dependent on the modules
DC connection	screw terminal
Thermally monitored varistors	yes
Ground fault monitoring	yes
Reverse polarity protection	short circuit diode
<b>Output data</b>	
Maximum AC output ( $P_{AC, max}$ )	1100 W
Nominal AC output ( $P_{AC, nenn}$ )	1000 W
Max. output current ( $I_{AC, max}$ )	5.0 A
Harmonic distortion of grid current	< 4 %
Nominal AC voltage ( $U_{AC, nenn}$ )	220 V - 240 V
Nominal AC frequency ( $f_{AC, nenn}$ )	50 Hz / 60 Hz
Power factor ( $\cos \varphi$ )	1
Short-circuit strength	yes, current regulation
Grid connection	AC plug
<b>Efficiency</b>	
Maximum efficiency ( $\eta_{Max}$ )	92 %
European standard efficiency ( $\eta_{Euro}$ )	90.4 %
<b>Power electronics</b>	
Switching concept	low frequency transformer
Grid monitoring (DIN VDE 0126-1-1)	SMA grid guard <sup>®</sup> 2
Number of supply phases	1
<b>Enclosure</b>	
according to DIN EN 60529	IP65
Cooling concept	convection
Ambient temperature range (max.)	-25 °C ... +60 °C
<b>Mechanical data</b>	
Weight	29 kg
Width/height/depth (mm)	434 / 295 / 214
<b>Features</b>	
Communication	RS232/RS485/radio/powerline (optional)
Display	standard: 2-line display
Guarantee	5 years (optional: 10 years)
System monitoring	Compatible e.g. with Sunny Boy Control, Sunny Beam, Sunny WebBox and Sunny Portal