

# SUNNY BOY 2000HF / 2500HF / 3000HF

SB 2000HF-30 / SB 2500HF-30 / SB 3000HF-30



## High yields

- Maximum efficiency of 96.3 %
- Shade management with OptiTrac Global Peak

## Reliable

- Galvanic isolation
- Integrated ESS DC switch-disconnector
- Anti-theft protection

## Simple

- Quick Module speeds and simplifies configuration
- SUNCLIX DC plug-in system
- Suitable for PV array grounding

## Informative

- Simple country configuration
- Graphic display
- *Bluetooth* technology as standard

## SUNNY BOY 2000HF / 2500HF / 3000HF

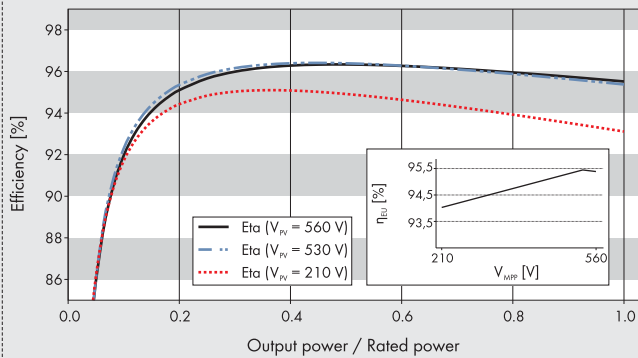
A high yield performer

Packed full of innovative technology, the Sunny Boy HF series provides the highest yields for transformer-based inverters in this performance class. Installation is now easier than ever thanks to the DC connection system SUNCLIX, the plug-in PV array grounding, and an easily accessible configuration area – all in a reduced weight unit. The wide input voltage range from 175 to 700 V gives you extraordinary flexibility for your plant design, and the modern graphic display and wireless *Bluetooth* communication system make the devices highly user-friendly.

# SUNNY BOY 2000HF / 2500HF / 3000HF

Technical Data	Sunny Boy 2000HF	Sunny Boy 2500HF
<b>Input (DC)</b>		
Max. DC power (@ $\cos \varphi=1$ )	2100 W	2600 W
Max. input voltage	700 V	700 V
MPP voltage range / rated input voltage	175 V - 560 V / 530 V	175 V - 560 V / 530 V
Min. input voltage / initial input voltage	175 V / 220 V	175 V / 220 V
Max. input current	12 A	15 A
Max. input current per string	12 A	15 A
Number of independent MPP inputs / strings per MPP input	1 / 2	1 / 2
<b>Output (AC)</b>		
Rated output power (@ 230 V, 50 Hz)	2000 W	2500 W
Max. apparent AC power	2000 VA	2500 VA
Nominal AC voltage / range	220 V, 230 V, 240 V / 180 V - 280 V	220 V, 230 V, 240 V / 180 V - 280 V
AC power frequency / range	50 Hz, 60 Hz / -4.5 Hz ... +4.5 Hz	50 Hz, 60 Hz / -4.5 Hz ... +4.5 Hz
Rated power frequency / rated power voltage	50 Hz / 230 V	50 Hz / 230 V
Max. output current	11.4 A	14.2 A
Power factor at rated power	1	1
Adjustable displacement factor	—	—
Feed-in phases / connection phases	1 / 1	1 / 1
<b>Efficiency</b>		
Max. efficiency / European efficiency	96.3% / 95%	96.3% / 95.3%
<b>Protection</b>		
Input-side disconnection device	●	●
Ground-fault monitoring / grid monitoring	● / ●	● / ●
DC surge arrester Type II, can be integrated	—	—
DC reverse-polarity protection / AC short-circuit current capability / galvanically isolated	● / ● / ●	● / ● / ●
All-pole sensitive residual current monitoring unit	—	—
Protection class (according to IEC 62103) / overvoltage category (according to IEC 60664-1)	I / III	I / III
<b>General Data</b>		
Dimensions (W / H / D)	348 / 580 / 145 mm (13.7 / 22.8 / 5.7 in)	348 / 580 / 145 mm (13.7 / 22.8 / 5.7 in)
Weight	17 kg / 37.4 lb	17 kg / 37.4 lb
Operating temperature range	-25 °C ... +60 °C / -13 °F ... +140 °F	-25 °C ... +60 °C / -13 °F ... +140 °F
Noise emission (typical)	38 dB(A)	38 dB(A)
Internal consumption (night)	1 W	1 W
Topology	HF transformer	HF transformer
Cooling concept	Convection	OptiCool
Degree of protection (according to IEC 60529)	IP65	IP65
Degree of protection of connection area (according to IEC 60529)	IP54	IP54
Climatic category (according to IEC 60721-3-4)	4K4H	4K4H
Maximum permissible value for relative humidity (non-condensing)	100 %	100 %
<b>Features</b>		
DC terminal	SUNCLIX	SUNCLIX
AC terminal	Connector	Connector
Display	Graphic	Graphic
Interface: RS485 / Bluetooth	○ / ●	○ / ●
Warranty: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○
Multi-function relay	○	○
Certificates and approvals (more available on request)	CE, VDE0126-1-1, G83/1-1, RD 1663/2000, PPC, AS4777, EN 50438*, C10/11, PPS, IEC 61727, ENEL-Guida, SI4777, UTE C15-712-1, VDE-AR-N 4105	
Type designation	SB 2000HF-30	SB 2500HF-30

Efficiency curve SUNNY BOY 3000HF



## Accessories



SMA Plug-in Grounding  
PLUGIN-GRD-10-NR



Quick Module RS485 +  
multi-function relay  
485QM-10-NR

\* Does not apply to all national deviations of EN 50438

\*\* Only applies to V option

● Standard features ○ Optional features – Not available

Data at nominal conditions

Technical Data	Sunny Boy 3000HF	
<b>Input (DC)</b>		
Max. DC power (@ $\cos \varphi=1$ )	3150 W	
Max. input voltage	700 V	
MPP voltage range / rated input voltage	210 V - 560 V / 530 V	
Min. input voltage / initial input voltage	175 V / 220 V	
Max. input current	15 A	
Max. input current per string	15 A	
Number of independent MPP inputs / strings per MPP input	1 / 2	
<b>Output (AC)</b>		
Rated output power (@ 230 V, 50 Hz)	3000 W	
Max. apparent AC power	3000 VA	
Nominal AC voltage / range	220 V, 230 V, 240 V / 180 V - 280 V	
AC power frequency / range	50 Hz, 60 Hz / -4.5 Hz ... +4.5 Hz	
Rated power frequency / rated power voltage	50 Hz / 230 V	
Max. output current	15 A	
Power factor at rated power	1	
Adjustable displacement factor	–	
Feed-in phases / connection phases	1 / 1	
<b>Efficiency</b>		
Max. efficiency / European efficiency	96.3 % / 95.4 %	
<b>Protection</b>		
Input-side disconnection device	●	
Ground-fault monitoring / grid monitoring	● / ●	
DC surge arrester Type II, can be integrated	–	
DC reverse-polarity protection / AC short-circuit current capability / galvanically isolated	● / ● / ●	
All-pole sensitive residual current monitoring unit	–	
Protection class (according to IEC 62103) / overvoltage category (according to IEC 60664-1)	I / III	
<b>General Data</b>		
Dimensions (W / H / D)	348 / 580 / 145 mm (13.7 / 22.8 / 5.7 in)	
Weight	17 kg / 37.4 lb	
Operating temperature range	-25 °C ... +60 °C / -13 °F ... +140 °F	
Noise emission (typical)	38 dB(A)	
Internal consumption (night)	1 W	
Topology	HF transformer	
Cooling concept	OptiCool	
Degree of protection (according to IEC 60529)	IP65	
Degree of protection of connection area (according to IEC 60529)	IP54	
Climatic category (according to IEC 60721-3-4)	4K4H	
Maximum permissible value for relative humidity (non-condensing)	100 %	
<b>Features</b>		
DC terminal	SUNCLIX	
AC terminal	Connector	
Display	Graphic	
Interface: RS485 / Bluetooth	○ / ●	
Warranty: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○	
Multi-function relay	○	
Certificates and approvals (more available on request)	CE, VDE0126-1-1, G83/1-1, RD 1663/2000, PPC, AS4777, EN 50438*, C10/11, PPDS, KEMCO**, IEC 61727, ENEL-Guida, SI4777, UTE C15-712-1, VDE-AR-N 4105	
Type designation	SB 3000HF-30	