



SUNNY BOY 2000HF-US / 2500HF-US / 3000HF-US

SB 2000HFUS-30 / 2500HFUS-30 / 3000HFUS-30



 **SMA BLUETOOTH**
Intelligent Networking



High yields

- Maximum efficiency of 97.4 %
- The best tracking efficiency with OptiTrac MPP tracking
- OptiCool active temperature management

Reliable

- Galvanic isolation
- Integrated DC switch-disconnector

User-friendly

- Slim enclosure mounts in walls of wooden-frame houses
- Plug-in grounding with GFDI
- Reduced weight
- Quick and easy configuration thanks to Quick Module.

Informative

- Graphic display
- Bluetooth technology as standard

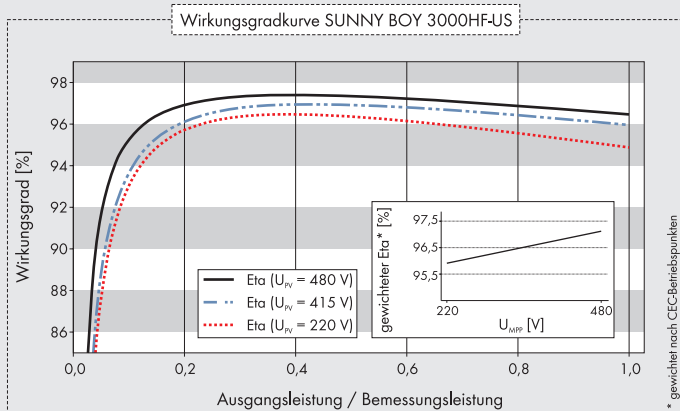
SUNNY BOY 2000HF-US / 2500HF-US / 3000HF-US

Easy installation, simple communication and maximum performance

The new Sunny Boy high frequency inverters are designed for projects requiring UL certification and represent the next step in innovative SMA technology. Featuring world-class efficiency, a slim-line enclosure and reduced weight, the Sunny Boy HF series of inverters can be mounted in between wall studs, making it perfect for new construction or space-constrained retrofits. Installation is made simple by automatic grid detection*, field configuration for positive ground modules and a wide input voltage range of 175 to 600 V, which provides exceptional system design flexibility. The modern graphic display and wireless Bluetooth communication system provides a wealth of data in a user-friendly format.

SUNNY BOY 2000HF-US / 2500HF-US / 3000HF-US

Technical Data	Sunny Boy 2000HF-US 208 V	Sunny Boy 2000HF-US 240 V	Sunny Boy 2500HF-US 208 V
Input (DC)			
Recommended max. PV power (@ module STC)	2500 W		3125 W
Max. DC power (@ $\cos \varphi=1$)	2200 W		2750 W
Max. input voltage	600 V		
MPP voltage range / rated input voltage	175 V - 480 V / 400 V		220 V - 480 V / 415 V
Min. input voltage / start 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 (opt. 3)		
Output (AC)			
Rated power / Max. apparent AC power	2000 W / 2000 VA		2500 W / 2500 VA
Nominal AC voltage / Nominal AC voltage range	208 V / 183 V - 229 V	240 V / 211 V - 264 V	208 V / 183 V - 229 V
AC power frequency / range	60 Hz / 59.3 Hz ... 60.5 Hz		
Rated grid frequency / rated grid voltage	60 Hz / 208 V	60 Hz / 240 V	60 Hz / 208 V
Max. output current	9.6 A	8.3 A	12.0 A
Power factor at rated power	1		
Phase conductors / connection phases	1 / 2		
Efficiency			
CEC efficiency / max. efficiency	97.0 % / 97.2 %	97.0 % / 97.4 %	96.5 % / 97.0 %
Protection			
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		
General Data			
Dimensions (W / H / D)	348 / 727 / 183 mm (14 / 29 / 7 inch)		
Weight	23 kg / 51 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	NEMA 3R		
Degree of protection of connection area	NEMA 3R		
Climatic category (according to IEC 60721-3-4)	-		
Maximum permissible value for relative humidity (non-condensing)	100 %		
Features			
DC terminal	Spring-type terminal		
AC terminal	Spring-type terminal		
Display	Graphic		
Interface: RS485 / Bluetooth	○ / ●		
Warranty: 10 / 15 / 20 years	● / ○ / ○		
Certificates and approvals (more available on request)	UL1741, UL1998, IEEE1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1		
Type designation	SB 2000HFUS-30		SB 2500HFUS-30



Accessories



Flush-Mount Kit for integration in wood-framed walls
Mount KIT-10-NR



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



String fuses Upgrade kit
SB-SFK-US-10-NR

● Standard features ○ Optional features – not available
Data at nominal conditions

Technical Data	Sunny Boy 2500HF-US 240 V	Sunny Boy 3000HF-US 208 V	Sunny Boy 3000HF-US 240 V
Input (DC)			
Recommended max. PV power (@ module STC)	3125 W		3750 W
Max. DC power (@ cos φ=1)	2750 W		3300 W
Max. input voltage		600 V	
MPP voltage range / rated input voltage		220 V - 480 V / 415 V	
Min. input voltage / initial input voltage	175 V / 220 V		220 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 (opt. 3)	
Output (AC)			
Rated power / Max. apparent AC power	2500 W / 2500 VA		3000 W / 3000 VA
Nominal AC voltage / Nominal AC voltage range	240 V / 211 V - 264 V	208 V / 183 V - 229 V	240 V / 211 V - 264 V
AC power frequency / range		60 Hz / 59.3 Hz ... 60.5 Hz	
Rated grid frequency / rated grid voltage	60 Hz / 240 V	60 Hz / 208 V	60 Hz / 240 V
Max. output current	10.4 A	14.4 A	12.5 A
Power factor at rated power		1	
Phase conductors / connection phases		1 / 2	
Efficiency			
CEC efficiency / max. efficiency	96.5 % / 96.8 %	96.5 % / 96.9 %	96.5 % / 96.9 %
Protection			
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	
General Data			
Dimensions (W / H / D)		348 / 727 / 183 mm (14 / 29 / 7 inch)	
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Cooling concept		OptiCool	
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Degree of protection of connection area		NEMA 3R	
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Maximum permissible value for relative humidity (non-condensing)		100 %	
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Display		Graphic	
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Warranty: 10 / 15 / 20 years		● / ○ / ○	
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www.SunnyPortal.com

Professional management, monitoring and presentation of PV plants

