



reddot design award



#### Economical

- CEC efficiency of 96 %
- Optimal module use with individual MPP tracking
- Maximum service life thanks to patented electronics design and minimum number of components

#### Safe

- Galvanic isolation
- Integrated grid disconnection point with monitoring in the Sunny Multigate
- Sunny Multigate XT for outdoor use
- Complies with all relevant protection classes and standards

#### Communicative

- Integrated Webconnect function to Sunny Portal via Ethernet
- Real-time monitoring on module level
- Remote monitoring via smartphone or tablet
- Free and convenient plant monitoring via Sunny Portal

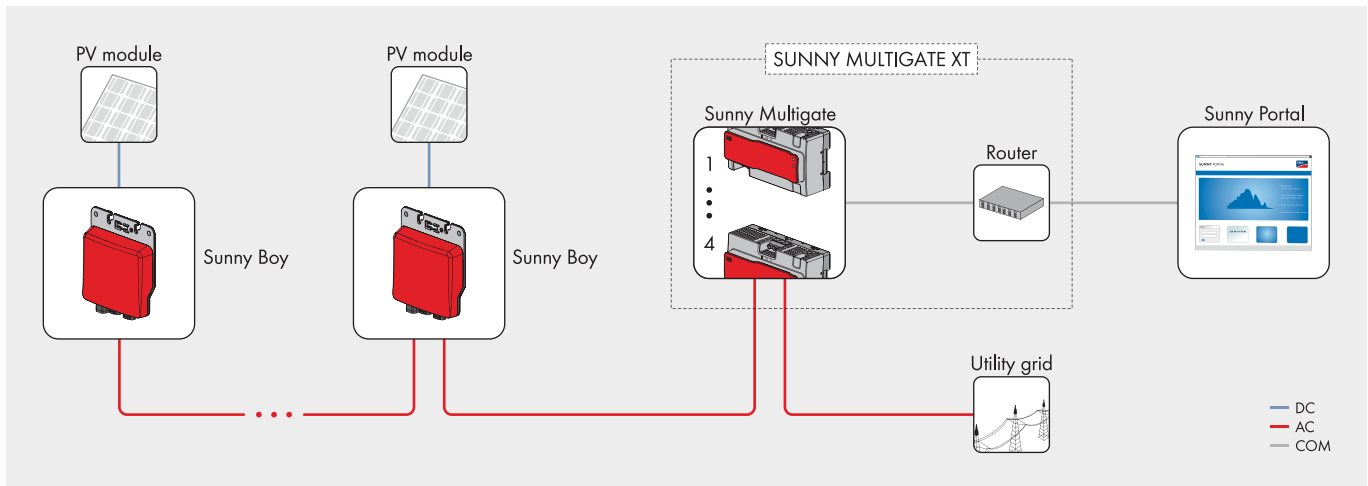
#### User-Friendly

- Pre-assembled AC cables
- Selection of DC adapters for the SB 240
- Turnkey Sunny Multigate XT, pre-installed component for various system sizes
- Easy installation

## SUNNY BOY 240-US

Great things come in small packages

The ideal inverter for a flexible, modular PV system: The Sunny Boy 240, in combination with the Sunny Multigate, is the perfect, easy-to-install solution for various applications such as differently arranged substrings and systems with regularly shaded modules. As a result of their modular design, systems equipped with the Sunny Boy 240-US, the Sunny Multigate-US and the Sunny Multigate XT can be realigned and upgraded at any time – for instance for structural modifications, capacity expansion or depending on financial circumstances. The Sunny Multigate XT is specifically designed for outdoor use and is a robust, turnkey component with up to four pre-installed Multigate devices.



Technical Data	Sunny Boy 240-US	Sunny Multigate-US
<b>Input (DC)</b>		
Max. DC power (@ cos φ= 1) / max. input voltage	250 W / 45 V	- / -
MPP voltage range / rated input voltage	23 V - 32 V / 29.5 V	-
Min. input voltage / max. initial input voltage	23 V / 23 V	-
Max. input current / max. input current per string	8.5 A / 8.5 A	-
Number of independent MPP inputs / strings per MPP input	1 / 1	-
Max. number of micro inverters	-	12 x SB 240-US-10
<b>Output (AC)</b>		
Rated power (@ 240 V, 60 Hz) / max. apparent AC power	240 W / 240 VA	2880 W / 2880 VA
Nominal AC voltage / range	2 x 120 V / 211 V - 264 V	2 x 120 V / 211 V - 264 V
AC power frequency / range	60 Hz / 59.3 Hz ... 60.5 Hz	60 Hz / 59.3 Hz ... 60.5 Hz
Rated power frequency / rated grid voltage	60 Hz / 240 V	60 Hz / 240 V
Max. output current	1 A	12 A
Power factor at rated power	1	1
Feed-in phases / connection phases	1 / 2	2 / 2 x 120 V split phase
<b>Efficiency</b>		
Max. efficiency / CEC efficiency	95.9 % / 96 %	-
<b>Protective Devices</b>		
Ground-fault monitoring / grid monitoring	● / ●	- / ●
DC reverse polarity protection / AC short-circuit current capability / galvanically isolated	● / ● / ●	- / ● / -
Max. permissible fuse protection	-	15 A circuit breaker
<b>General Data</b>		
Dimensions (W / H / D)	188 / 218 / 43 mm (7.4 / 8.6 / 1.7 inch)	162 / 90 / 63 mm (6.4 / 3.5 / 2.5 inch)
Weight	1.3 kg (2.9 lb)	0.7 kg (1.5 lb)
Operating temperature range	-40 °C ... +65 °C (-40 °F ... +149 °F)	-40 °C ... +45 °C (-40 °F ... +113 °F)
Noise emission	38 db(A)	
Self-consumption (night)	0.3 W	
Topology / cooling concept	HF transformer / convection	- / convection
Degree of protection (according to IEC 60529)	NEMA 3R	TYPE 1
Max. permissible value for relative humidity (non-condensing)	100 %	100 %
<b>Communication</b>		
Sunny Portal	-	SMA Webconnect via Ethernet
<b>Features</b>		
DC terminal / AC terminal	Connector / connector	- / screw terminal
Interface: Speedwire/Webconnect	-	●
Certificates and approvals (more available on request)	CAN/CSA C22.2 107.1-1, FCC Part 15 (Class A & B), IEC 62109-1/-2, IEEE 1547, UL 1741, UL 1998	
Warranty: 10 years	●	●
Note: Technical data is preliminary and subject to change, ● Standard features ○ Optional features - Not available		
Type designation	SB 240-US-10	MULTIGATE-US-10

	Multigate XT1	Multigate XT2	Multigate XT3	Multigate XT4
<b>Input (AC) / Output (AC)</b>				
Number of AC inputs / number of AC outputs	1 / 1	2 / 1	3 / 1	4 / 1
Connection terminals	AWG 6 - AWG 14			
<b>General Data</b>				
Dimensions (W / H / D)	305 / 305 / 152 mm (12 / 12 / 6 inch)	406 / 508 / 203 mm (20 / 24 / 8 inch)	610 / 508 / 203 mm (20 / 24 / 8 inch)	610 / 508 / 203 mm (20 / 24 / 8 inch)
Weight	4 kg (8.8 lb)	7 kg (15.4 lb)	12 kg (26.5 lb)	13 kg (28.7 lb)
Operating temperature range	-40 °C ... +45 °C			
Cooling principle / degree of protection (according to IEC 60529)	Convection / NEMA 3R			