

GOODWE

SBP-US Series

(North America Only) 5-11.4kW
Split phase I AC-coupled
retrofit inverter (HV)
UL certified

As an AC-coupled product, SBP-US supports off-grid applications and unbalanced output for load consumption (no extra autotransformer required). Additionally, the inverter is specially designed to offer microgrid operation during blackouts, which enables the PV system to generate power to support load consumption even when the grid is down. To better adapt to the North America market, the SBP-US is compatible with fossil fuel generators to rapidly reduce the fuel cost while maintaining stable power supply. Lastly, this retrofit inverter provides an optional EV charger function that allows users to eliminate additional hardware and plug the EV charger cable directly into the inverter.



Smart Control & Monitoring

- 24/7 load consumption monitoring
- Multiple communication protocols supported



Fully Integrated Design

- Passive cooling system to operate with low noise
- Built-in autotransformer to reduce installation & system cost



Maximize Renewable Power

- Optional EV charger function
- 11.4kW backup support



Flexible & Adaptable Applications

- Fossil fuel generator compatible
- Micro-grid application & backup solution

Technical Data	GW5000-SBP -US20	GW6000-SBP -US20	GW7600-SBP -US20	GW9600-SBP -US20	GW11K4-SBP -US20
Battery Input					
Battery Type	Li-Ion				
Nominal Battery Voltage (V)	300				
Battery Voltage Range (V) ¹	80 ~ 495				
Start-up Voltage (V)	80				
Number of Battery Input	1				
Max. Continuous Charging Current (A)	50				
Max. Continuous Discharging Current (A)	50				
Max. Charging Power (W)	5000	6000	7600	9600	11400
Max. Discharging Power (W)	5250	6300	7980	10080	11970
AC Output (On-grid)					
Nominal Output Power (W)	5000	6000	7600	9600	11400
Nominal Apparent Power Output to Utility Grid (VA)	5000	6000	7600	9600	11400
Max. Apparent Power Output to Utility Grid (VA)	5000	6000	7600	9600	11400
Max. Apparent Power from Utility Grid (VA)	5000	6000	7600	9600	11400
Max. Apparent Power from Utility Grid Without EV Charger (VA)	5000	6000	7600	9600	11400
Nominal Output Voltage (V)	240				
Output Voltage Range (V)	211 ~ 264				
Nominal AC Grid Frequency (Hz)	60				
AC Grid Frequency Range (Hz)	58.5 ~ 61.2				
Max. AC Current Output to Utility Grid (A)	20.8	25.0	31.7	40.0	47.5
Max. AC Current From Utility Grid (A)	20.8	25.0	31.7	40.0	47.5
Max. AC Current From Utility Grid Without EV Charger (A)	20.8	25.0	31.7	40.0	47.5
Max. AC Current From Utility Grid With EV Charger (A)	40.0	40.0	40.0	40.0	47.5
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)				
Max. Total Harmonic Distortion	<3%				
AC Output (Back-up)					
Back-up Nominal Apparent Power (VA)	5000	6000	7600	9600	11400
Max. Output Apparent Power with Grid (VA) ²	5000 (10000@10sec)	6000 (12000@10sec)	7600 (12920@10sec)	9600 (17280@10sec)	11400 (17280@10sec)
Max. Output Apparent Power without Grid (VA)	5000	6000	7600	9600	11400
Max. Output Current (A)	20.8	25.0	31.7	40.0	47.5
Nominal Output Voltage (V)	240 / 120				
Nominal Output Frequency (Hz)	60				
Output THDv (@Linear Load)	<3%				
Efficiency					
Max. Efficiency	97.0%				
CEC Efficiency	96.0%				
Max. Battery to AC Efficiency	97.0%				

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Protection					
Residual Current Monitoring	Integrated				
Battery Reverse Polarity Protection	Integrated				
Anti-islanding Protection	Integrated				
AC Overcurrent Protection	Integrated				
AC Short Circuit Protection	Integrated				
AC Overvoltage Protection	Integrated				
AC Surge Protection	Type III				
Battery Arc Fault Detection	Integrated				
General Data					
Operating Temperature Range	-31°F ~ +140°F (-35°C ~ +60°C)				
Relative Humidity	0 ~ 95%				
Max. Operating Altitude	9842ft (3000m)				
Cooling Method	Natural Convection				
User Interface	LED, APP				
Communication with BMS	RS485, CAN				
Communication with Meter	RS485				
Communication with Portal	LAN (4G Optional) + Bluetooth + WiFi				
Weight (lb)	65.9	65.9	66.6	74.7	74.7
Dimension (W x H x D)	19.1 x 35.4 x 7.5 in (485 x 900 x 191.5 mm)				
Noise Emission (dB)	<20	<20	<20	<40	<40
Topology	Non-isolated				
Self-consumption at Night (W) ^{*3}	<20				
Ingress Protection Rating	NEMA Type 4X				
Mounting Method	Wall Mounted				
Certification					
Grid Interconnection	UL1741 SB, California Rule 21, HECO Rule 14, IEEE 1547, IEEE 1547.1				
Safety Regulations	UL 1741, CSA 22.2 No. 107.1, UL 1998, UL1699B				
Electromagnetic Compatibility	FCC part15 CLASS B				

*1: Battery discharge / charge power limited by voltage. The maximum battery voltage is 450V for AC-Coupled inverters in the microgrid application.

*2: Can be reached only if PV and battery power is enough.

*3: No Back-up Output.

*: Please visit GoodWe website for the latest certificates.

EV Charger (Optional) Specifications



AC Output Data	
Charging Level	AC Level 2
Nominal AC Power Output (W)	9600
Nominal AC Frequency (Hz)	60
Maximum Continuous Output Current (A)	40 ^{*1}
EV Charger Configuration & Indicator	APP (WiFi, Bluetooth)
EV Charger Cable Length ^{*2}	7.6m
EV Charger Cable Operating Temperature Range	-31°F ~ +140°F (-35°C ~ +60°C)
Operating Altitude	≤ 9842ft (3000m)
Protection Degree	NEMA Type 4X
Certifications & Standards	
Safety Regulation	UL2594, UL2231-1, UL2231-2, NEC Article 625 compliant
EV Charger	SAE J1772

*1: The Maximum Continuous Output Current can be selected from 40A, 32A, 24A, 16A, and the default current is 16A.

*2: EV charger cable ordered separately.