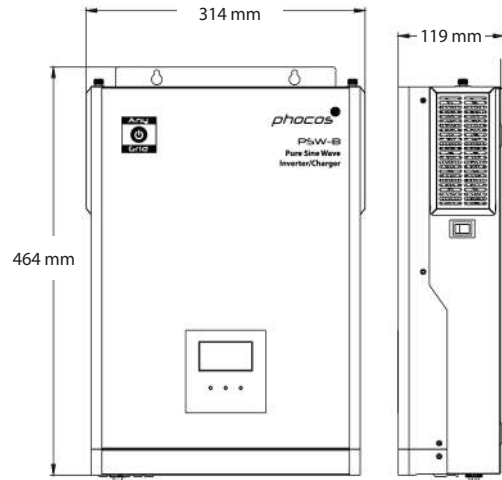


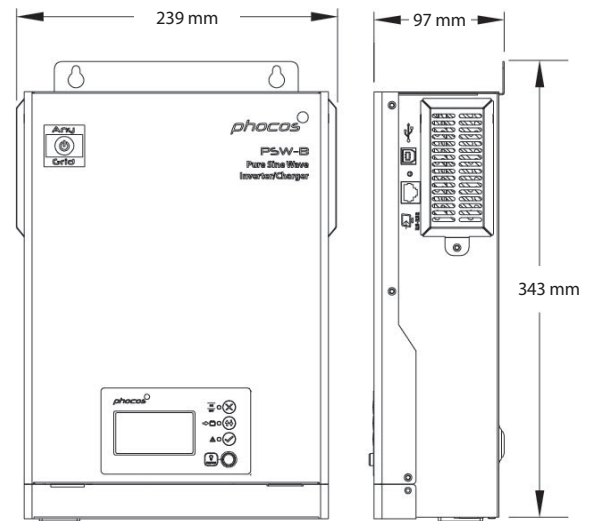
**NEW**



**Technical Drawing**



PSW-B-3KW-230/24V and  
PSW-B-1.6KW-120/24V



PSW-B-1KW-230/12V and  
PSW-B-0.5KW-120/12V

**Product Introduction**

The Phocos Any-Grid™ PSW-B Series (Pure Sine Wave Battery Inverter Charger) is part of Phocos' versatile line of Any-Grid inverters/chargers. Flexibility and reliability are key characteristics of this product line, with a strong potential for cost saving opportunities in real world conditions. The Any-Grid PSW-B converts DC (Direct Current) into AC (Alternating Current), with multiple advantages beyond standard inverters. This product includes an integrated MPPT charge controller and can function as an AC to DC battery charger, which provides flexible energy access solutions in a broad range of applications.

The battery can be charged from solar and/or an AC source (public grid or generator), with easily programmable priorities. The Any-Grid PSW-B can function without an AC source or alternatively even without solar, as a pure uninterruptible power supply (UPS). When the utility grid or AC generator fails, the PSW-B immediately switches to 'Off-Grid' mode within 10 ms (typical, in UPS mode) to securely power the loads at all times. Solar can be set as the priority energy source to save electricity costs.

This unit comes with a quality, integrated MPPT charge controller, avoiding the need to buy a separate solar charge controller. Solar panels can be connected directly into the Any-Grid PSW-B unit.

**Any-Grid PSW-B Series  
is compatible with  
Lithium batteries**

**Product Features**

- Flexible, advanced features with options to solve many common challenges in the field
- Integrated MPPT charge controller
- Integrated AC battery charger
- Charge controller functions even if inverter is turned off to keep batteries fully charged
- Compatible with Lithium batteries
- Display unit with 3 LEDs, 3/4 buttons, and an intuitive LCD screen
- RS-232 and USB connectivity
- Integrated buzzer for error indications
- Common negative and galvanically isolated inverter
- Washable filter reduces dust buildup in the inverter

**Any-Grid PSW-B Series  
is the most cost-effective entry  
point to all-in-one inverter chargers**

**Power Connections:**

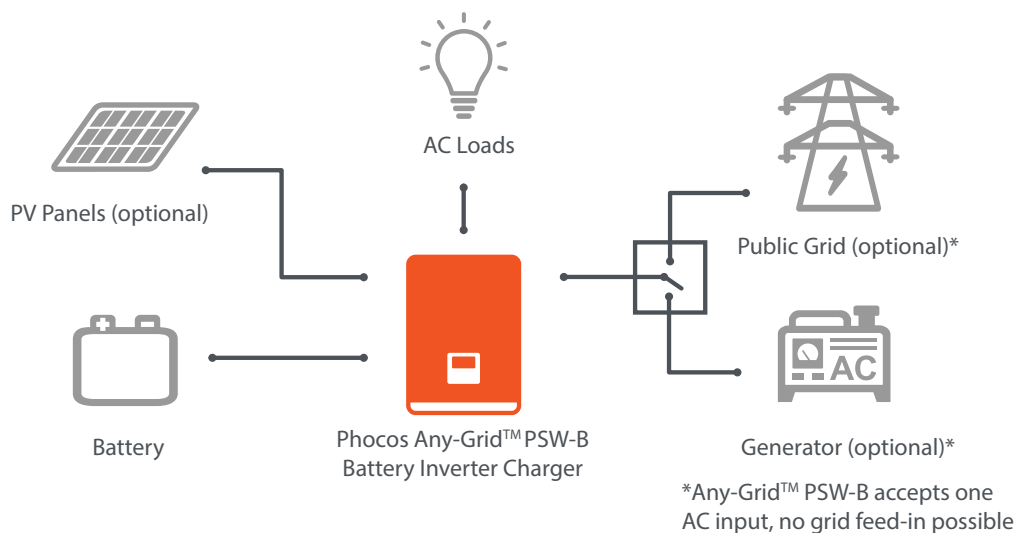
- Solar/PV
- AC Source
- Battery
- AC Output



**What is Any-Grid™?**

Traditionally, the energy industry defines power systems relative to their access to the grid as Off-Grid or On-Grid. At Phocos, we believe energy access should be available under 'Any-Grid' conditions whether you have full or partial access to renewable energy and/or grid power, and if energy sources are unreliable. The Phocos Any-Grid Inverter Series provides flexible energy access solutions that optimize the use of locally available energy resources that can adapt as access to resources changes over time.

**Any-Grid™ PSW-B Capability**



## Technical Data

| Type                               | PSW-B-3KW-230/24V   | PSW-B-1.6KW-120/24V  | PSW-B-1KW-230/12V  | PSW-B-0.5KW-120/12V             |
|------------------------------------|---|--|--|---------------------------------|
| Output Waveform                    | Pure Sine Wave  |  |  |                                 |
| System Voltage                     | 24 Vdc  |  | 12 Vdc   |                                 |
| Rated Output Power                 | 3000 VA / 3000 W at 220 ~ 240 Vac*  | 1500 / 1637 / 1732 VA / W at 110 / 120 / 127 Vac, respectively | 1000 VA / 1000 W at 220 ~ 240 Vac  | 500 VA / 500 W at 110 ~ 127 Vac |
| Max. Charge Current (PV)           | 60 Adc  |  | 40 Adc   |                                 |
| Max. Charge Current (AC)           | 60 Adc  |  | 20 Adc   |                                 |
| Max. Total Charge Current          | 120 Adc   |  | 60 Adc   |                                 |
| Max. AC Input Current              | 30 Aac  |  | 10 Aac   |                                 |
| Float Charge                       | 27.6 Vdc (adjustable)   |  | 13.8 Vdc (adjustable)  |                                 |
| Boost Charge                       | 28.8 Vdc (adjustable)   |  | 14.4 Vdc (adjustable)  |                                 |
| Equalization Charge                | 29.6 Vdc (adjustable)   |  | 14.8 Vdc (adjustable)  |                                 |
| Deep-Discharge Protection          | 22 Vdc (adjustable)   |  | 11 Vdc (adjustable)  |                                 |
| Reconnect Level                    | 25.6 Vdc (adjustable)   |  | 12.8 Vdc (adjustable)  |                                 |
| Overvoltage Protection             | 33 Vdc  |  | 16 Vdc   |                                 |
| Undervoltage Protection            | 18.8 Vdc  |  | 9.4 Vdc  |                                 |
| Max. PV Panel Voltage              | 145 Vdc   |  | 100 Vdc  |                                 |
| PV Panel MPP Voltage               | 30 ~ 115 Vdc  |  | 15 ~ 80 Vdc  |                                 |
| Max. Usable PV Power               | 1800 W  |  | 600 W  |                                 |
| Max. PV Array Power                | 2250 Wp   |  | 750 Wp   |                                 |
| AC Frequency                       | 50 / 60 Hz auto recognition   |  |  |                                 |
| AC Output Voltage                  | 110 ~ 240 Vac ± 5%  | 110 ~ 127 Vac ± 5%   | 110 ~ 240 Vac ± 5%   | 110 ~ 127 Vac ± 5%              |
| Surge Power                        | 2x rated power for 5 seconds  |  |  |                                 |
| Inverter Efficiency (from Battery) | > 93 % peak   |  | > 90 % peak  |                                 |
| Idle Self-Consumption              | < 37 W  |  | < 15 W   |                                 |
| Grounding                          | Common negative, galvanically isolated inverter   |  |  |                                 |
| Ambient Temperature                | -10 to +50 °C / +14 to +122 °F  |  |  |                                 |
| Storage Temperature & Humidity     | -15 to +60 °C / +5 to +140 °F, 5~95% (non-condensing)   |  |  |                                 |
| Max. Altitude                      | 4,000 m above sea level, 1 % power de-rating per 100 m above 1,000 m above sea level                    |  |  |                                 |
| Battery Type                       | Lead acid (gel, AGM, flooded), Lithium  |  |  |                                 |
| Max. Wire Cross Section            | Battery: 35 mm <sup>2</sup> (AWG 2)<br>PV: 16 mm <sup>2</sup> (AWG 6)<br>AC: 10 mm <sup>2</sup> (AWG 8) |  | Battery: 35 mm <sup>2</sup> (AWG 2)<br>PV: 16 mm <sup>2</sup> (AWG 6)<br>AC output: 2.5 mm <sup>2</sup> (AWG 14) |                                 |
| Dimensions (WxHxD)                 | 314 x 464 x 119 mm / 12.4 x 18.3 x 4.7 in   |  | 239 x 343 x 97 mm / 9.4 x 13.5 x 3.8 in  |                                 |
| Weight                             | 9.6 kg / 21.2 lbs   |  | 4.5 kg / 9.9 lbs   |                                 |
| Ingress Protection                 | IP21  |  |  |                                 |
| Certificates                       | CE compliant, RoHS compliant  |  |  |                                 |
| Warranty                           | 2 years   |  |  |                                 |

\*Rated output power 1500 / 1637 / 1732 VA/W at 110 / 120 / 127 Vac, respectively.