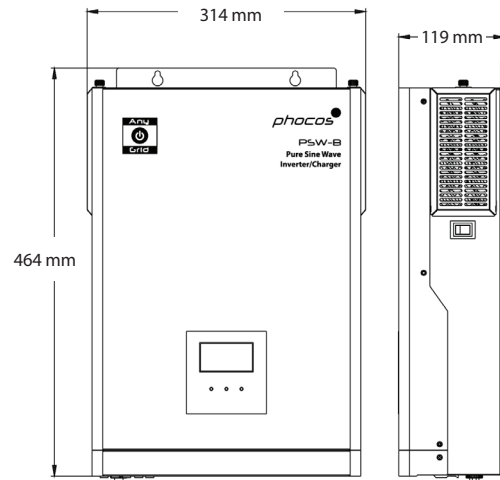# PSW-B (1.8kW PV, 3kW AC)
Any-Grid™ Battery Inverter Charger

NEW

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.

Technical Drawing

314 mm
119 mm
464 mm

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, 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

PSW-B (1.8kW PV, 3kW AC)
Any-Grid™ Battery Inverter Charger

Technical Data

Type	PSW-B-3KW-230/24V
Output Waveform	Pure Sine Wave
System Voltage	24 Vdc
Rated Output Power	3000 VA / 3000 W at 220 ~ 240 Vac*
Max. Charge Current (PV)	60 Adc
Max. Charge Current (AC)	60 Adc
Max. Total Charge Current	120 Adc
Max. AC Input Current	30 Aac
Float Charge	27.6 Vdc (adjustable)
Boost Charge	28.8 Vdc (adjustable)
Equalization Charge	29.6 Vdc (adjustable)
Deep-Discharge Protection	22 Vdc (adjustable)
Reconnect Level	25.6 Vdc (adjustable)
Overvoltage Protection	33 Vdc
Undervoltage Protection	18.8 Vdc
Max. PV Panel Voltage	145 Vdc
PV Panel MPP Voltage	30 ~ 115 Vdc
Max. Usable PV Power	1800 W
Max. PV Array Power	2250 Wp
AC Frequency	50 / 60 Hz auto recognition
AC Output Voltage	110 ~ 240 Vac ± 5%

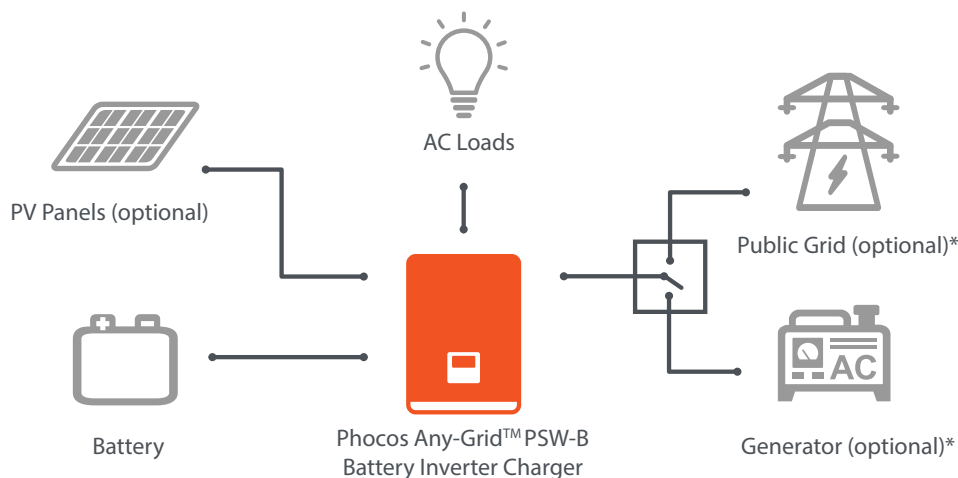| Type	PSW-B-3KW-230/24V
Surge Power	2x rated power for 5 seconds
Inverter Efficiency (from Battery)	> 93 % peak
Idle Self-Consumption	< 37 W
Grounding	Common negative, galvanically isolated inverter
Ambient Temperature	-10 to +50 ℃
Storage Temperature & Humidity	-15 to +60 ℃, 5-95 % (non-condensing)
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 mm² (AWG 1) PV: 16 mm² (AWG 5) AC: 10 mm² (AWG 7)
Dimensions (WxHxD)	314 x 464 x 119 mm / 12.4 x 18.3 x 4.7 in
Weight	9.6 kg / 21.2 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.

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

PV Panels (optional)

AC Loads

Public Grid (optional)*

Battery

Phocos Any-Grid™ PSW-B
Battery Inverter Charger

Generator (optional)*

*Any-Grid™ PSW-B accepts one
AC input, no grid feed-in possible