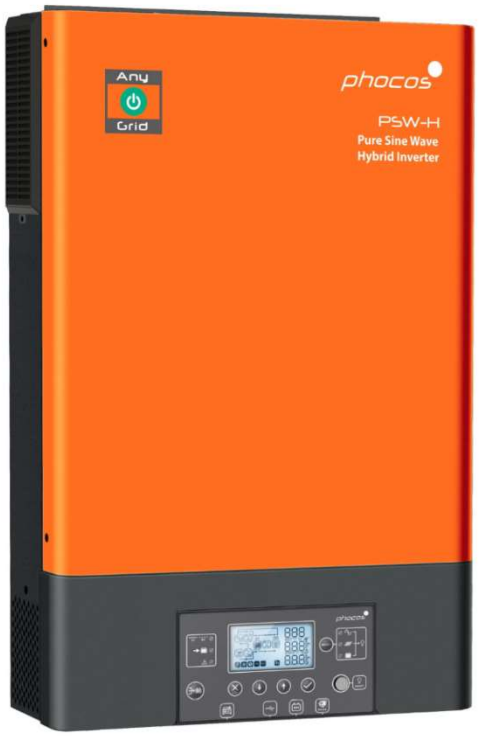
Recommended Battery Settings Guide

Phocos Any-Grid™ Series

Any-Grid use with Lithium battery model:
Blue Planet Energy
BLUE ION 2.0

Applicable for:
Any-Grid PSW-H-5kW-230/48V



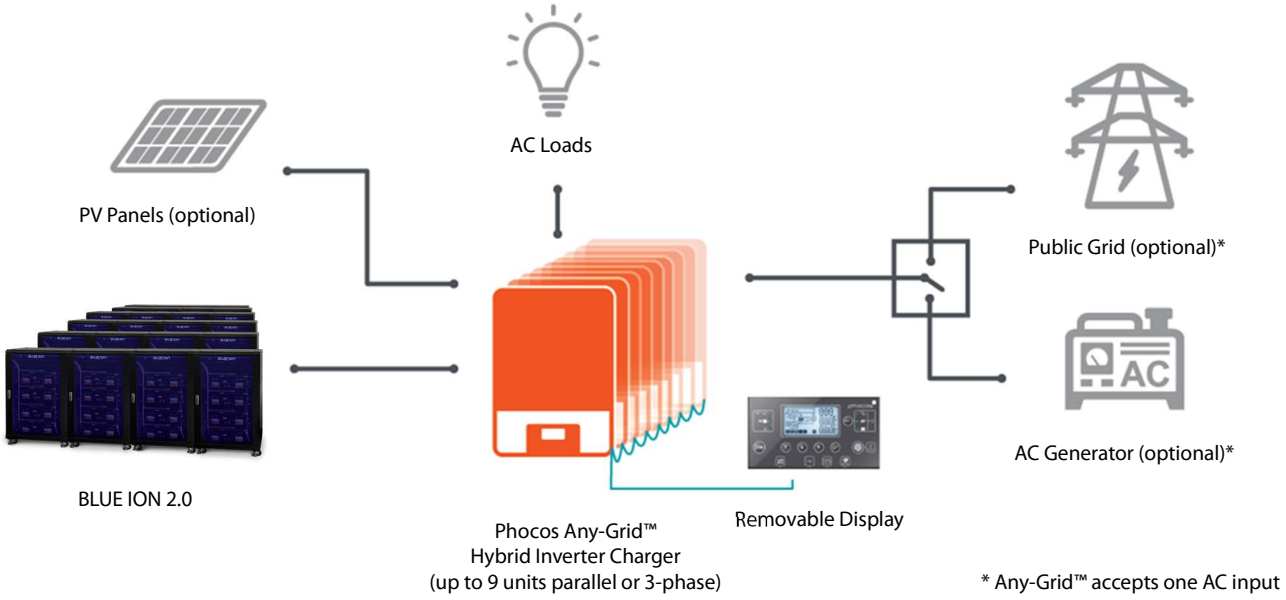
1.0 Introduction

This guide outlines the recommended settings for operation of one or more Any-Grid™ PSW-H-5kW-230/48V hybrid inverter chargers with one or more BLUE ION 2.0 lithium battery cabinets.

The Any-Grid must be installed according to the Any-Grid "User and Installation Manual" included with every Any-Grid unit and available online at www.phocos.com. The battery terminals of the Any-Grid must be connected to the Blue Planet Energy BLUE ION 2.0 according to the BLUE ION 2.0 installation manual.

WARNING: Be sure to read and respect the warnings in the installation manuals of the Any-Grid, the BLUE ION 2.0 battery and any other connected equipment. The installation must be conducted by a trained professional.

2.0 System Overview



3.0 Battery Sizing

Each BLUE ION 2.0 cabinet can support 160 Adc continuous current and has an integrated 250 Adc breaker. It is thus capable of delivering both sufficient continuous current and peak current for a single PSW-H-5KW-230/48V, regardless of whether it is an 8, 12 or 16 kWh battery cabinet. When using multiple Any-Grid units, be sure to have at least one battery cabinet per Any-Grid to sustain the required currents. The batteries must be wired in parallel to form a single large battery bank when using multiple Any-Grids. All Any-Grids must be connected to the same battery cluster.

4.0 Recommended Settings

CAUTION: Once the system is wired according to both the Any-Grid and BLUE ION 2.0 installation manuals, activate only the battery connection to the Any-Grid(s). The AC input source, AC output loads and PV input must remain off on the Any-Grid until the parameters have been set.

These settings are recommendations only. They are intended to keep the batteries within their operational limits (maximum voltage, maximum current, etc). These settings can be adjusted to optimize the performance of your particular system, but must be kept within the limits of the battery specifications.

These settings refer to the Any-Grid manual, chapter **Operation → Device Operation Settings → Settings menus**.

- *Maximum total battery charging current*
  Menu 02: 80A
- *Battery type*
  Menu 05: User-defined
- *Voltage set-point to switch from Off-Grid mode to Grid mode when "SBU priority" or "Solar / PV first" is selected in settings menu 01*
  Menu 12: 49 Vdc or higher
- *Voltage set-point to switch from Grid mode to Off-Grid mode when selecting "SBU priority" or "Solar / PV first" in settings menu 01*
  Menu 13: lower than 55 Vdc
- *Boost battery charging voltage*
  Menu 26: 55.2 Vdc
- *Floating battery charging voltage*
  Menu 27: 55.2 Vdc
- *Low voltage disconnect*
  Menu 29: 48.0 Vdc
- *Boost battery charging duration*
  Menu 32: 60 min
- *Battery equalization*
  Menu 33: Disabled
- *Maximum discharging current*
  Menu 41: Disabled

Once these settings have been applied, activate the circuit breakers or insert the fuses to energize the various inputs and outputs on the Any-Grid in the following order (skip any that are not connected):

1. AC input
2. PV input
3. AC output

The commissioning and programming of the battery-related settings of the Any-Grid is now complete.

The content of this document is subject to change without notice.
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