Sunny Island

Island grid systems with SMA products

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Explanation of Symbols Used in this Document

In order to guarantee the optimum use of this manual and to ensure the safe use of the device in the commissioning, operational and maintenance phases, please pay attention to the following explanations of the symbols used in this manual.

This symbol indicates a fact that is important for optimum operation of the product. For this reason, read these sections carefully.

This symbol indicates a fact which, if not observed, could result in damage to components or represent a danger to persons. Please read these sections especially carefully.

This symbol identifies an example.

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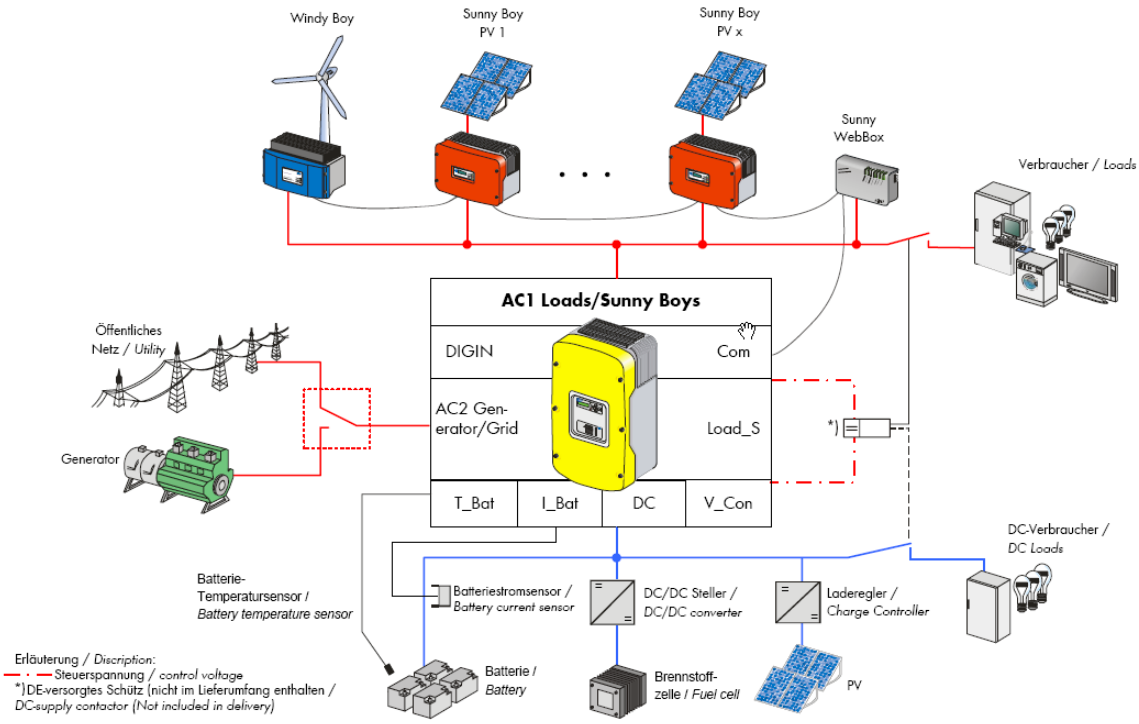
1 Introduction



Schematic design of a possible system configuration

The control concept and the sophisticated AC coupling of the Sunny Island 3324, Sunny Island 4248, Sunny Island 4500 and Sunny Island 5048 battery inverters makes a power supply on the AC side by regenerative energy sources possible. These energy sources include for example PV plants and wind power plants which can provide the off-grid inverters with energy via Sunny Boy or Windy Boy inverters.

This document defines the conditions and requirements for the configuration of Island grid systems with SMA products.

2 Configuration Instructions

2.1 General Information

Although only the Sunny Boy inverter is described in the text below, the following facts apply to the Windy Boy inverter as well.

In order to use Sunny Boy inverters in Island grid systems some internal parameters must be changed, for example in order to control the feed-in power of the Sunny Boys. The "Off-Grid" setting parameter which is not a standard parameter in the Sunny Boy inverters is available for off-grid operation.

It is thus necessary to order compatible Sunny Boy inverters including this "Off-Grid" parameters for the use in Island grid systems. When ordering, please explicitly point out that the Sunny Boy will be used in such a Island grid system.

2.2 Compatible Products

All products which can be used with the following off-grid inverters in a Island grid system are listed below.

Available off-grid inverters:

- Sunny Island 3324
- Sunny Island 4248
- Sunny Island 4500
- Sunny Island 5048

2.2.1 Sunny Boy

The following inverters of the "Sunny Boy" product series can be used to supply energy from PV plants:

- SB 700
- SB 1100
- SB 1100LV
- SB 1700
- SB 2500
- SB 2800i
- SB 3000
- SB 3300
- SB 3800
- SMC 5000
- SMC 5000A
- SMC 6000
- SMC 6000A
- SMC 6000TL
- SMC 7000TL
- SMC 8000TL

2.2.2 Windy Boy

The following inverters of the "Windy Boy" product series can be used to supply energy from wind and water power plants:

- WB 700
- WB 1100
- WB 1100LV
- WB 1700
- WB 2500
- WB 2800i
- WB 3000
- WB 2500
- WB 3800
- WB 6000

3 Contact

If you have any questions or queries, please contact us. A team of qualified engineers and technicians is at your disposal.

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