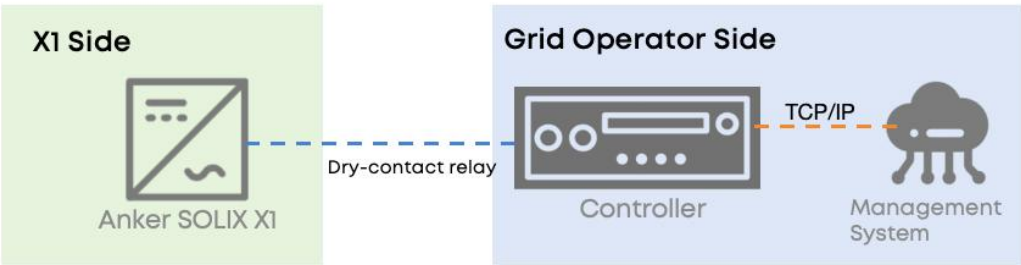# Application Note: The guide of EnWG14a Function

## 1. Overview

EnWG14a came into force on January 1st, 2024. In order not to overload the existing grid during the expansion process, one regulation limits the output power of electrical equipment such as EV Charger/HES/Air condition/Heat pump etc if necessary. For HES, in case of special emergency, the grid operator can issue commands and limits battery charge to 4.2kW for a maximum of 2 hours per day to help manage the grid power. This regulation is not mandatory now, it is related to the logic of user's Electricity Bills, and the participation of users is optional.

## 2. Anker SOLIX Technology

Anker SOLIX only provides the signal interface. Based on the current mainstream Dry-contact relay circuit scheme. How to connect to the controller needs to be confirmed with grid operator.



Currently, All Anker SOLIX X1 Single-Phase/Three-Phase Energy Storage System supports EnWG14a.
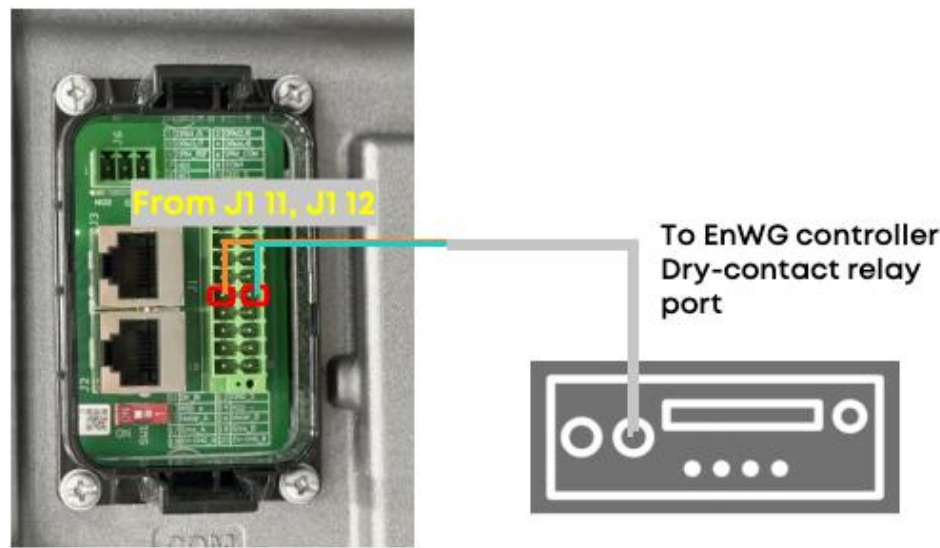The version information is as follows:

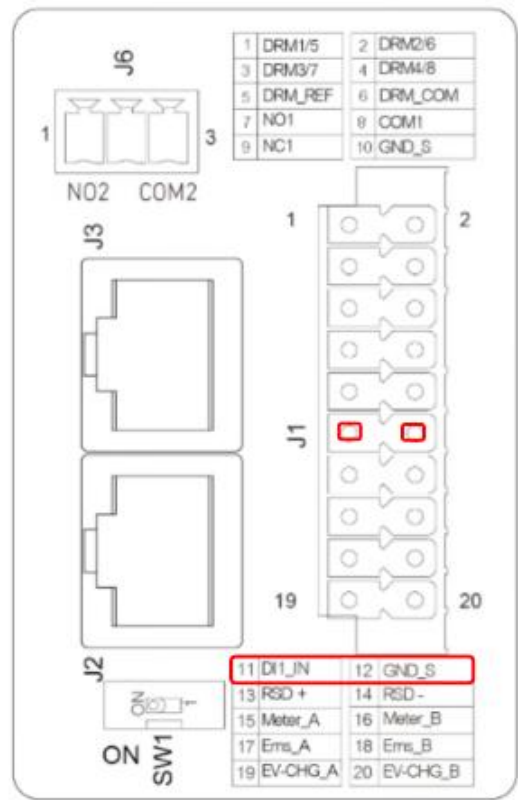| Items | Single-Phase System | Three-Phase System |
|---|---|---|
| Model type: | X1-H3.68K-S, X1-H4.6K-S, X1-H5K-S, X1-H6K-S | X1-H5K-T, X1-H8K-T, X1-H10K-T, X1-H12K-T |
| Single-Phase product firmware version | above V1.0.4.3 | above V1.0.6.5 |
| Installer app version | above V1.8.0 | above V1.8.0 |
| User app version | above V3.5.0 | above V3.5.0 |

# 3. Connection

Connect the EnWG14a control switch signal cable to the COM port of the X1 as shown in the Figure below. Port J7: DI1_IN, GND_S, (Choose one of the three GND_S ports.)

**X1 Signal Port**



From J1 11, J1 12

To EnWG controller Dry-contact relay port

## Appendix B. Communication Ports and Terminals



| 1 | DRM1/5 | 2 | DRM2/6 |
|---|--------|---|--------|
| 3 | DRM3/7 | 4 | DRM4/8 |
| 5 | DRM_REF | 6 | DRM_COM |
| 7 | NO1 | 8 | COM1 |
| 9 | NC1 | 10 | GND_S |

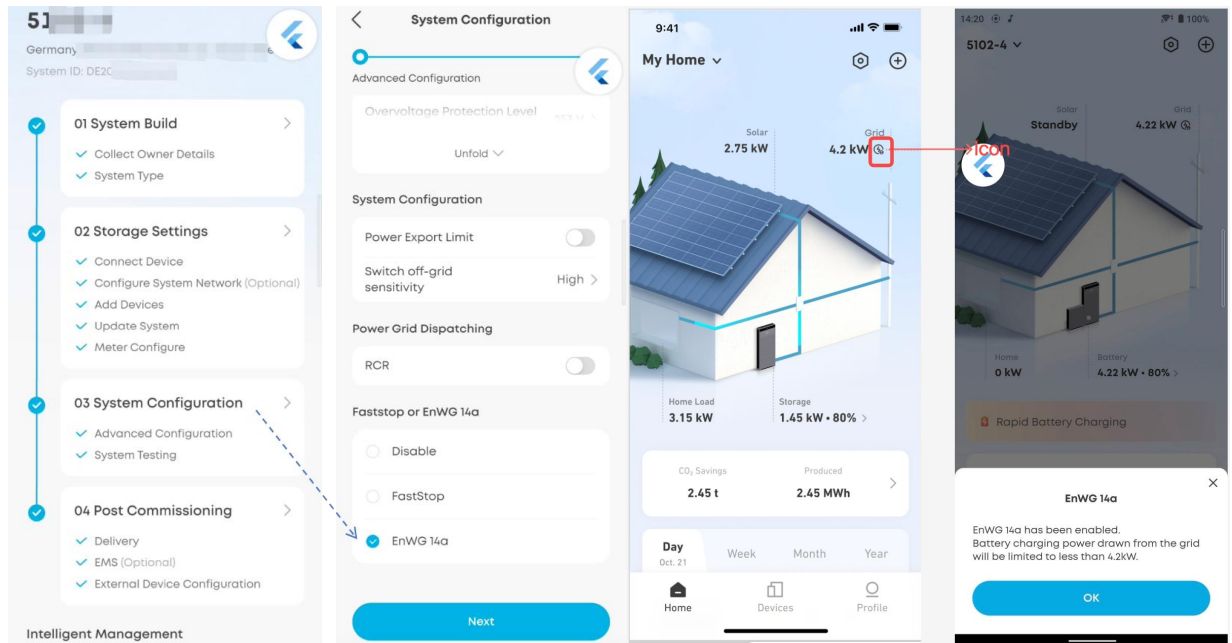| 11 | DI1_IN | 12 | GND_S |
|----|--------|----|--------|
| 13 | RSD + | 14 | RSD - |
| 15 | Meter_A | 16 | Meter_B |
| 17 | Ems_A | 18 | Ems_B |
| 19 | EV-CHG_A | 20 | EV-CHG_B |

 *Updated on Jan 11, 2024*

# 4. Setup and Performance

(1) As shown in the Figure below, when create the site, select the EnWG14a function on the Installer APP.
"System Testing -> Faststop or EnWG14a -> EnWG14a" (The default setting is "Faststop").

(2) When the grid operator enable the controller EnWG14a function, the 4.2kW battery charge power limit is implemented, and a special icon will be displayed on the grid side in the user APP home page. When the controller is off, the EnWG14a battery charge power limit is cancelled and the special icon disappears.



*Note:*
*1."Faststop" and "EnWG14a" functions share the same signal interface and only one of them can be selected for use, not both.*
*2.The 4.2kW limit is "Max battery charge power", not "Max grid import port", X1 normal loads are not affected by this limitation.*

*Updated on Jan 11, 2024*