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SOLAX POWER G2 SolaX Adapter Box Installation Guide

Contents

SOLAX POWER G2 SolaX Adapter Box

Product Information

Specifications

- **Product Name**: SolaX Adapter Box
- **Dimensions**: 130mm x 80mm x 62mm
- **Packing List**: Quick installation guide x1, Marking cardboard x1, Expansion screws x4, Expansion tubes x4

Overview
The SolaX Adapter Box is designed for connecting a heat pump to the inverter. It allows for easy and efficient communication between the heat pump and the inverter. The adapter box is suitable for heat pumps with dry contact function.

Product Usage Instructions

Mounting

1. Use the marking cardboard to fix it on the wall and determine the location of the hole.
2. Drill holes with a 6mm drill. Depth should be at least 30mm.
3. Tighten the expansion tubes using the expansion screws.
4. Dismantle the upper cover of the SolaX Adapter Box.
5. Pass the expansion screws through box installation channels and screw them in.

Wiring
Note: Please choose a place where the Adapter box is not directly exposed to the sun.
Connection diagram of the external relay for the Smart Grid Ready control of a heat pump

Connect the Adapter box to the inverter

1. Insert the cables through the glands.
2. Make cables, insert them into the RJ45 connector in the box, and tighten the waterproof terminal. (Conventional Communication cable, Stripping cable length: L = 15.00mm)
3. Press the wire on the other side according to the inverter quick installation requirements and insert it into the inverter port. (Refer to the quick installation manual of the corresponding inverter for specific details)

Connect the Adapter box to the Heat pump

1. First remove the green terminal block in the adapter box, then connect the cables to the through-hole terminals and tighten them. (Wire specifications: outer diameter(3.5-5.5) mm, stripping cable length: L = 7.00mm)
2. The wiring on the other side is inserted into the port according to the quick installation requirements of the heat pump.

FAQ

- **Q: What is the suitable size for the drill holes during mounting?**
  A: The drill holes should be 6mm in diameter with a depth of at least 30mm.
- **Q: Can I use the SolaX Adapter Box with any heat pump?**
  A: The SolaX Adapter Box is usually suitable for heat pumps with dry contact function.
- **Q: How should I connect the Adapter box to the inverter?**
  A: Follow these steps
    - Insert the cables through the glands.
    - Make cables, insert them into the RJ45 connector in the box, and tighten the waterproof terminal. (Conventional Communication cable, Stripping cable length: L = 15.00mm)
    - Press the wire on the other side according to the inverter quick installation requirements and insert it into the inverter port. (Refer to the quick installation manual of the corresponding inverter for specific details)
- **Q: How should I connect the Adapter box to the Heat pump?**
  A: Follow these steps
    - First remove the green terminal block in the adapter box, then connect the cables to the through-hole terminals and tighten them. (Wire specifications: outer diameter(3.5-5.5) mm, stripping cable length: L = 7.00mm)
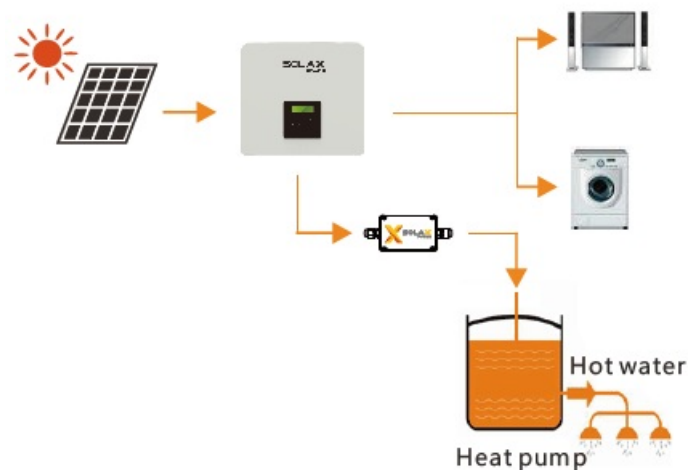
- The wiring on the other side is inserted into the port according to the quick installation requirements of the heat pump.
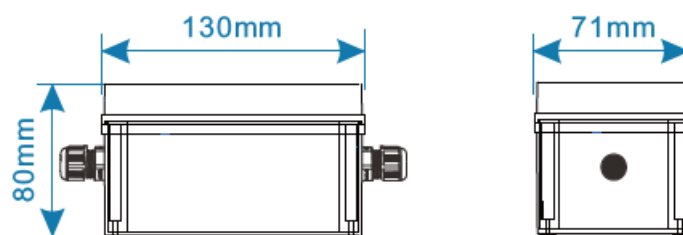
Quick Installation Guide
SolaX Adapter Box

Introduction

SolaX Adapter box is matched with a heat pump with dry contact function, which can realize heat pump integrated photovoltaic inverter energy system management. The inverter can control the Adapter box to use solar energy efficiently according to the requirements set by the user (grid power, battery capacity, time, etc.) Supplying heat pumps is generally applicable when there is surplus solar energy and battery storage capacity. This part of the energy can be used to heat the heat pump within the required temperature range. Please read this guide carefully before using.
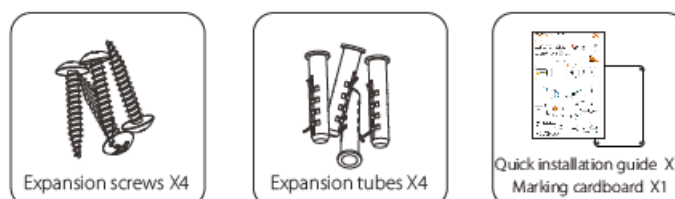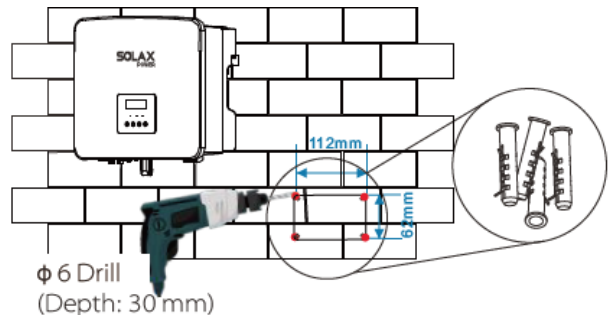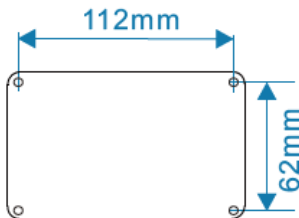

Hot water

Heat pump

Overview

Packing List

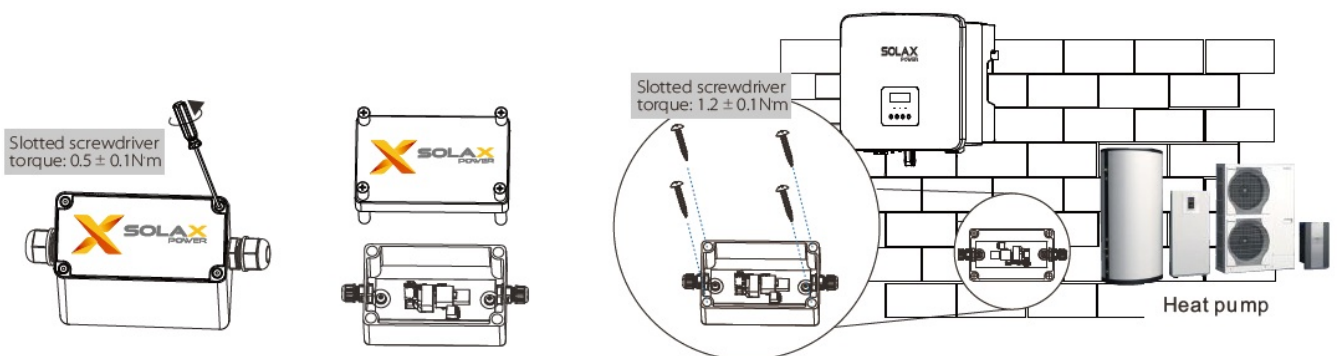Check that if there is any distortion or impaired during transportation.

Expansion screws X4   Expansion tubes X4   Quick installation guide X1
Marking cardboard X1

Mounting

- Use the marking cardboard to ?x it on the wall and determine the location of the hole.
  - Drill holes withφ6 drill.
  - **Depth**: at least 30mm.
- Tighten the expansion tubes.

- Dismantle the upper cover of the SolaX Adapter Box.
- Pass the expansion screws through box installation channels. Screw the expansion screws.
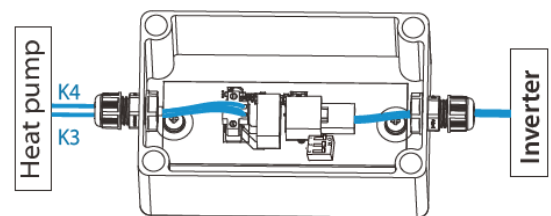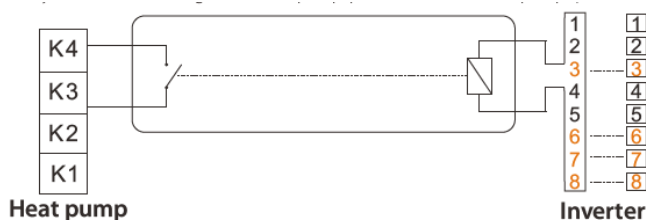
  Note: Please choose a place where the Adapter box is not directly exposed to the sun.

Wiring

Connection diagram of the external relay for the Smart Grid Ready control of a heat pump. (For the dry contact K3/K4 wiring on the heat pump, please refer to the heat pump quick installation guide)

Note: Adapter Box is usually suitable for heat pumps with dry contact function. The connection of the Inverter's communication 3/6/7/8pin dry contact and the dry contact K3/K4 on the heat pump is controlled.
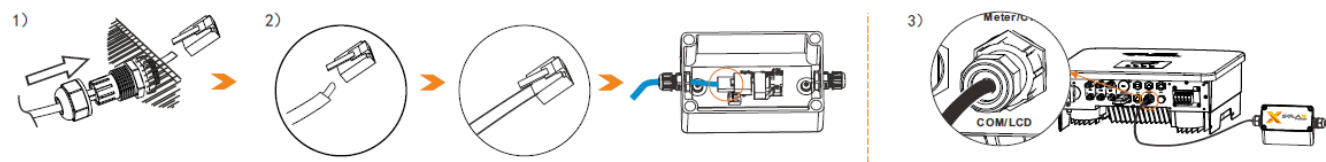

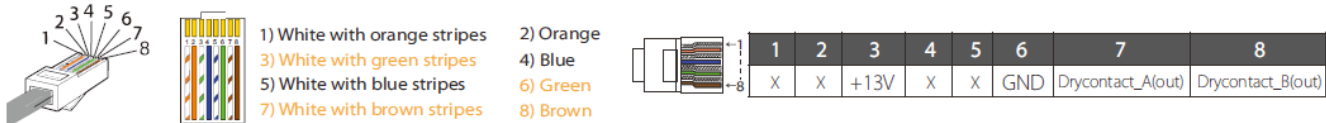**Connect the Adapter box to the inverter**

1. Insert the cables through the glands.

2. Make cables, insert it into the RJ45 connecter in the box and tighten the waterproof terminal. (Conventional Communication cable, **Stripping cable length**: L = 15.00mm)

3. Press the wire on the other side according to the inverter quick installation requirements and insert it into the

inverter port. (Refer to the quick installation manual of the corresponding inverter for special details)

COM/RS485 PIN Definition

1) White with orange stripes 2) Orange
3) White with green stripes 4) Blue
5) White with blue stripes 6) Green
7) White with brown stripes 8) Brown

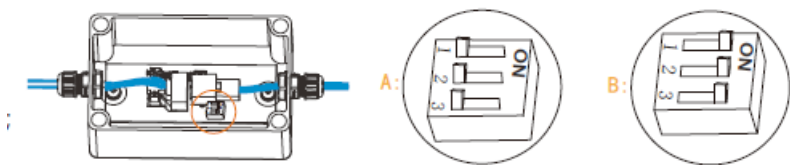| 1	2	3	4	5	6	7	8
X	X	+13V	X	X	GND	Drycontact_A(out)	Drycontact_B(out)

Note: The inverter terminal communication lines are carried out in strict accordance with the color sequence of the above lines. If you use it with SolaX's X1-Hybrid G4 /X3-Hybrid G4 series, please pay attention to the communication control of pins 3, 6, 7 and 8; For use with SolaX grid-connected inverter series, please pay attention to pin 3 and 6 communication control.
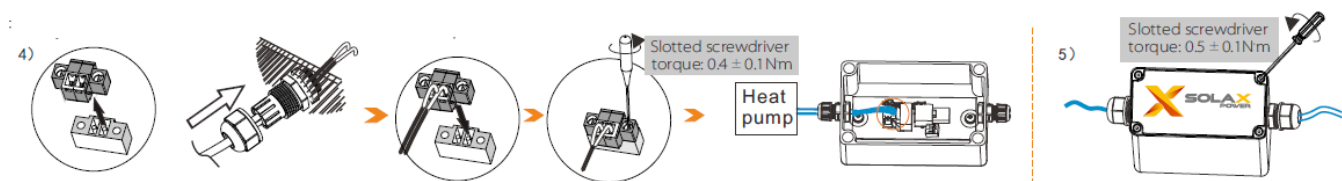
Switch settings

Figure A: If used with SolaX X1-Hybird G4 / X3-Hybrid G4 series, please set the **A**: three DIP switches to the "OFF" position, which is usually the factory default state;

Figure B: If it is used in the SolaX grid-connected machine series, please turn the three DIP switches to the "ON" position. If you need to match inverter and adapter box, please contact our SolaX team.

Connect the Adapter box to the Heat pump

4. First remove the green terminal block in the adapter box,the connect the cables to the through-hole terminals and tighten them. (**Wire special cations**: outer diameter(3.5-5.5) mm, **stripping cable length**: L = 7.00mm).

5. The wiring on the other side is inserted into the port according to the quick installation requirements of the heat pump. (Please refer to the quick installation manual of the corresponding heat pump) Finally, assemble the upper cover of the SolaX Adapter Box.

Setting

All Smart Grid Ready heat pumps have four controllable operating modes. SolaX recommends switching between operating modes 2 and 3. The switching is realized by an external relay, which is controlled by the SolaX inverter.

Operating mode

Operating mode 2 – standard operation	In this operating mode, the heat pump runs in standard operation. To activate this operating state, the external relay for controlling the heat pump remains open.
Operating mode 3 – increasing temperature mode	In this operating mode, the heat pump operates within the regulator in the intensified operation for hot water generation and / or room heating. This is not a direct start-up command, but an activation recommendation corresponding to the available PV power. In order to activate this operating state, the external relay is closed.

To use the heat pump function, users need to set the inverter LCD screen, press the following **menu to enter**:"
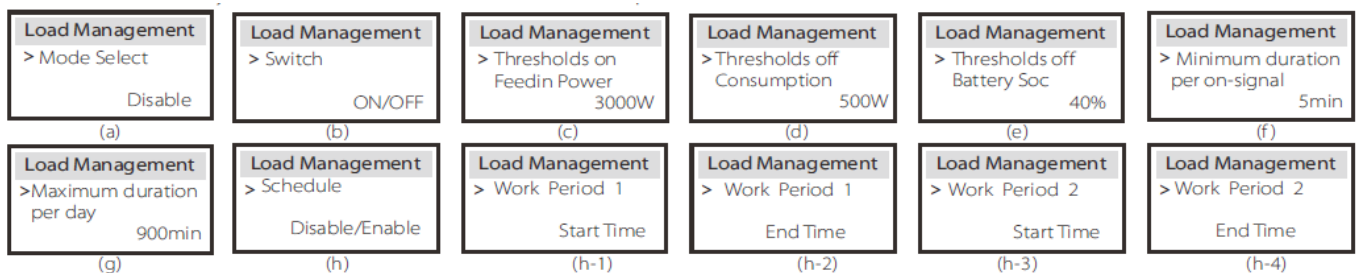Load Management ",select "Smart save" to set.

- (a) If you want to turn off the adapter box function, you can set "Disable" here to turn it off. … …
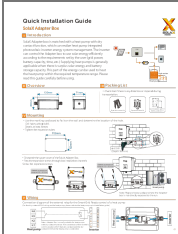
  Manual setting
- (b) Manual mode switch, you can set it to on or off here.

  Smart save settings
- (c) User can set the feed-in power threshold here. Once the feed-in power is greater than or equal to the set value, the adaptor box will turn on to make the heat pump work in mode 3.
- (d) User can set the consumption power threshold here. Once the power consumption is greater than or equal to the set value, Adapter box will turn off to make heat pump work in mode 2.
- (e) User can set the battery capacity threshold here. Once the battery capacity drops to the set value, the adapter box will turn off to make the heat pump work in mode 2.
- (f) User can set the minimum duration time that the heat pump will continue to run in mode 3 once the condition (c)is triggered.
- (g) User can set the cumulative time of operation mode 3 in one day. If this value is exceeded, the adapter box will not turn on even if condition (c) is met.
- (h) Users can set two working time periods for the operating mode 3.(In other time periods, the adapter box will be turned on/off according to the (c)/(d)/(e)) (h-1)/(h-2)/(h-3)/(h-4) Here you can set the start time and end time of operation mode 3.

Documents / Resources

SOLAX POWER G2 SolaX Adapter Box [pdf] Installation Guide
G2 SolaX Adapter Box, G2, SolaX Adapter Box, Adapter Box, Box

References

- **User Manual**