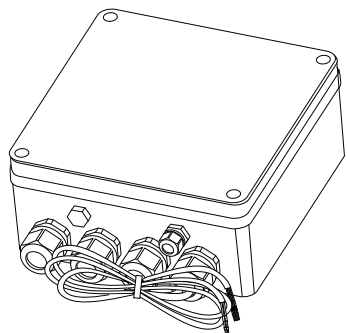


# Quick Installation Guide


STB5K-20

Backup box




With the backup box STB5K-20 connected into the PV ESS, the system is capable of operating as an off-grid system to ensure an emergency power supply for emergency appliances in the event of a grid interruption or blackout.

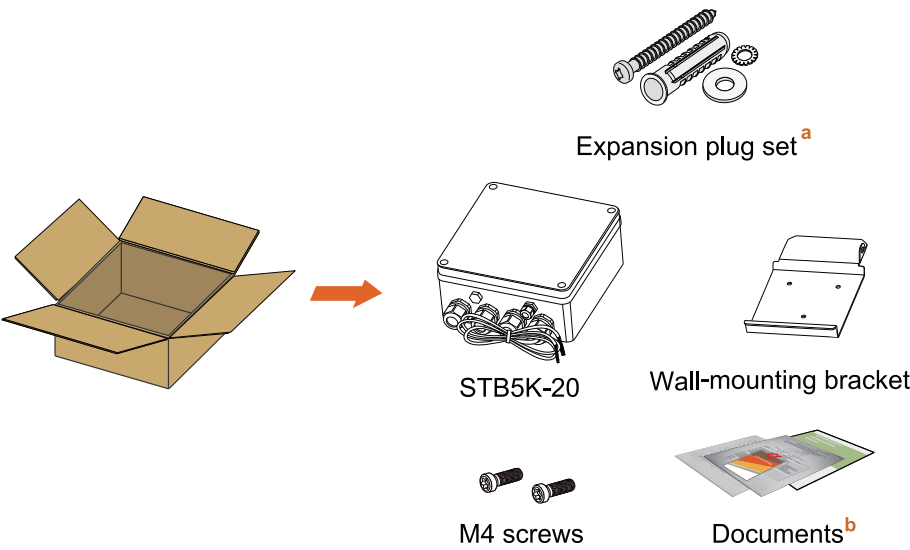
This guide provides a general installation instruction for the STB5K-20.

 **NOTICE**

- In no case shall this guide substitute for the related notes on the device.
- Make sure to read over, fully understand and strictly follow the detailed instructions of the user manual and other related regulations.
- Any violation could result in personal death or injury or device damage.

 The latest version and other manuals can be acquired at [www.sungrowpower.com](http://www.sungrowpower.com).


## 1 Unpacking and Inspection



\* Image shown here is for reference only. Actual product you receive may differ.

a) Each set includes a self-tapping screw, a spring washer, a fender washer, and an expansion tube.

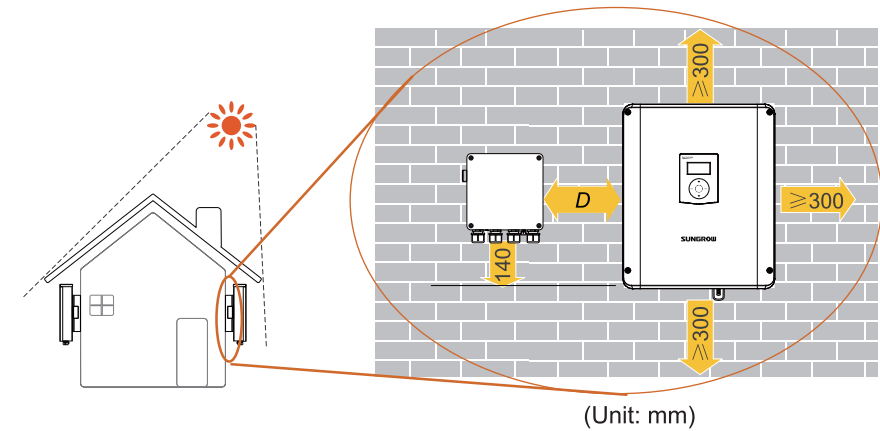
b) The documents include the Quick Installation Guide, quality certificates, packaging list and test reports.

 Contact SUNGROW or the distributor in case of any damage or missing components. A damaged STB5K-20 can not be connected to the system.

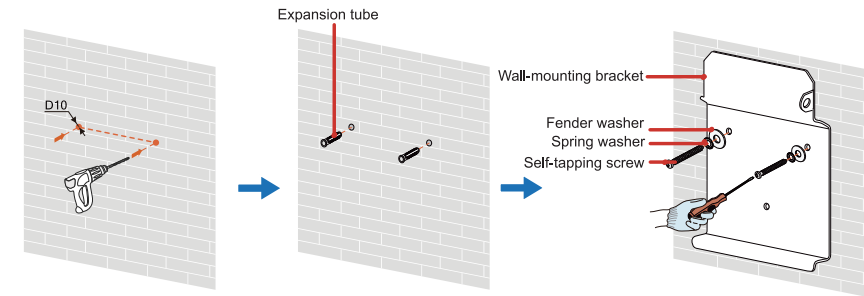
## 2 Installation

**NOTE**

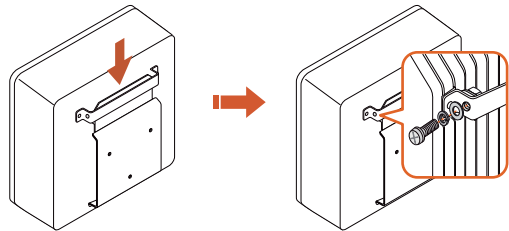
The STB5K-20 and the inverter are suggested to be installed on the same wall, with the STB5K-20 on the left and the inverter on the right. The space between them should be proper for the cable connection ( $300\text{ mm} \leq D \leq 400\text{ mm}$ ).



**Step 1** Secure the wall-mounting bracket to the wall with the supplied expansion bolt sets. Torque of the bolt is 35 N.m.

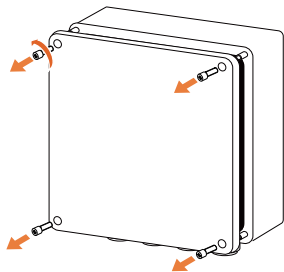


**Step 2** Mount the STB5K-20 to the wall-mounting bracket and secure it with the M4 screw.

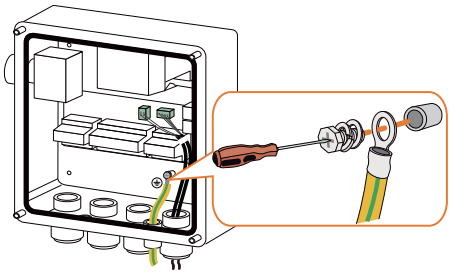


3 Cable Connection

Step 1 Loosen the inner hexagon screws and remove the enclosure lid.



Step 2 Connect the Protective Earth (PE) cable. The M4 screw is included in the delivery.



Step 3 Connect the power cables to the grid, the load and the inverter SH5K-20 respectively.

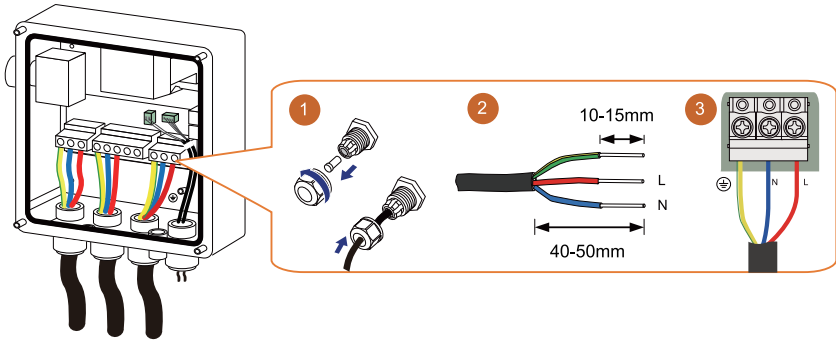
**WARNING**

Risk of inverter damage due to incorrect cable connection. Do not connect the grid power wires to EPS LOAD terminals.

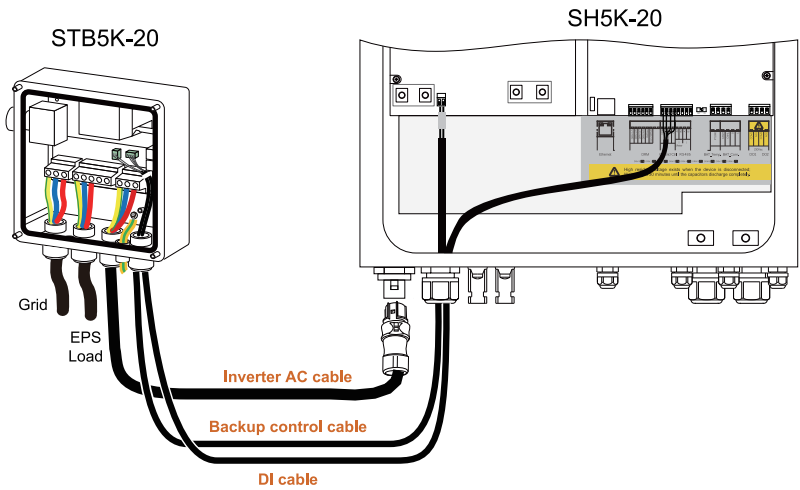
A residual current device (RCD) should be required on the EPS LOAD port of the backup box.

The neutral lines for the grid, the EPS and the inverter AC terminals are all inter-connected inside the STB5K-20. And it is the same for the PE lines.

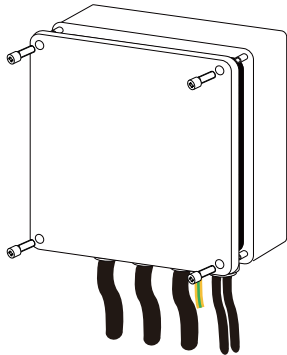
Cross-section: 4 mm², cable diameter: 11 mm–14 mm



The following figure shows the cable connection between the box and the inverter.



Step 4 Reinstall the enclosure lid and fasten the screws.



4 Commissioning

4.1 Inspection before Commissioning

Before starting up the backup box, you should check the following items.

- 1. The box is firmly secured and the site is accessible for operation, maintenance and service.
- 2. Room for ventilation is provided and nothing is left on top of the box.
- 3. The box and the meter, the inverter are correctly connected. Cables are routed in a safe place and protected against mechanical damage.
- 4. Warning signs and labels are suitably affixed and durable.

4.2 Commissioning Procedure

Step 1 Connect the AC circuit breaker.

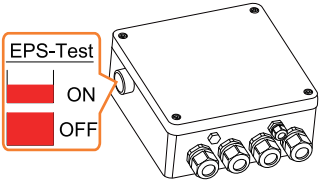
Step 2 (Optional) Rotate the DC switch to “ON”. The DC switch may be integrated in SH5K-20 or installed by the customer. If there is sufficient sunlight, the inverter will be powered on and the LCD will be lit.

Step 3 Refer to the User Manual or Quick User Manual of inverter to complete the initial settings. Enable the EPS function and set the reserved capacity for Li-ion batteries.

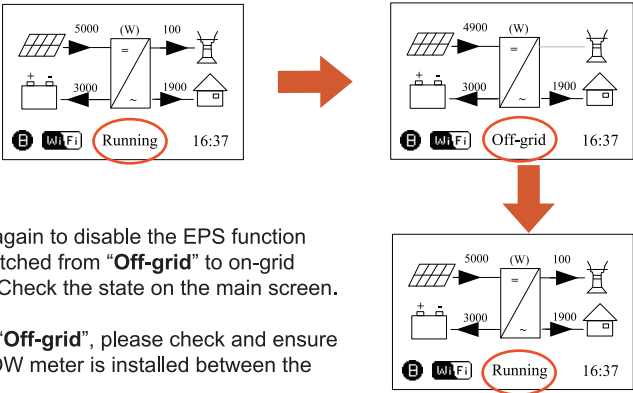
The reserved capacity is the on-grid minimum battery discharge level. The reserved battery capacity will be supplied to the emergency loads in the off-grid system.

EPS Setting	EPS Setting
<input type="radio"/> Disable	► Reserved Capacity
<input checked="" type="radio"/> Enable	000 %

Step 4 Press the button on the left side of the STB5K-20 to disconnect the hybrid inverter from the grid. Check the state on the main screen.



The inverter state is switched from “Running” to “Off-grid” . If not, check the cable connection of the STB5K-20.



Step 5 Press the button again to disable the EPS function The system is switched from “Off-grid” to on-grid “Running” state. Check the state on the main screen.

If the state is still “Off-grid”, please check and ensure that the SUNGROW meter is installed between the grid and this box.

**i** If there is any error during the commissioning, the icon **⚠** will appear on the middle of the main screen. Press **▼** to view the current errors. Refer to the SH5K-20 manual for the troubleshooting.