Alpha·ESS
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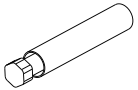
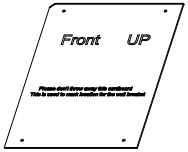
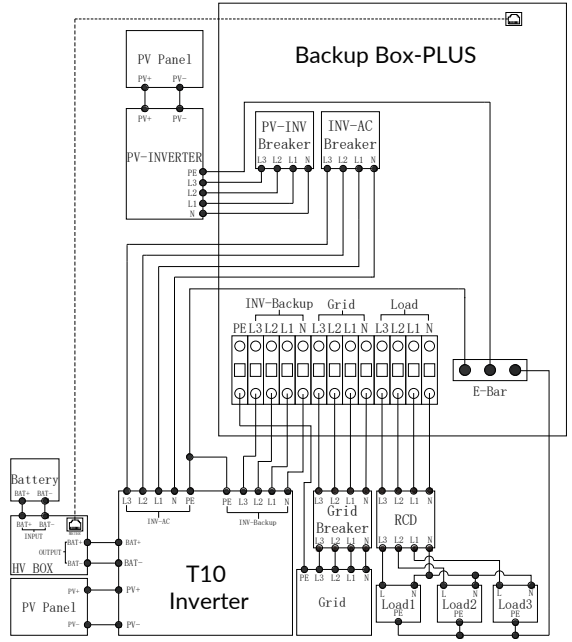
QUICK INSTALLATION GUIDE

Backup Box-PLUS
V02

Parting List

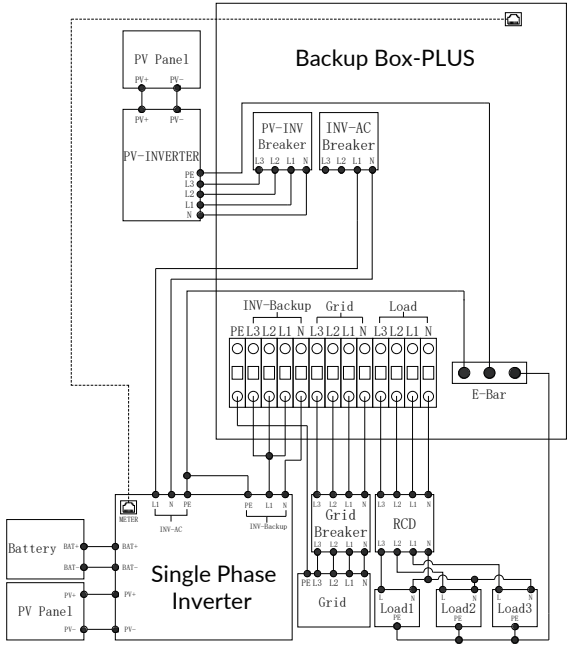
Backup Box-PLUS		
		
M8 expansion screw X4	Quick installation guide X1	Positioning board x1

System Wiring Diagram



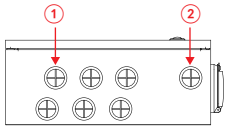
Backup Box-PLUS wiring diagram for three-phase inverter.

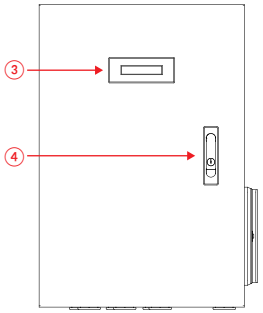
Please connect PE cable between Backup Box and the inverter. If the inverter does not have PE port, these is no need to connect PE cable.



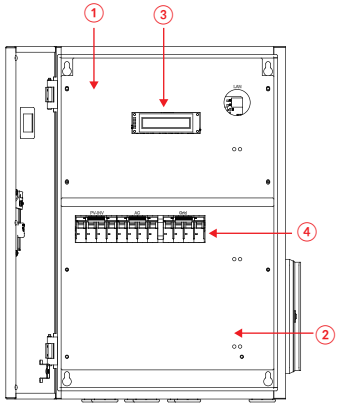
Backup Box-PLUS wiring diagram for single-phase inverter.

Instruction

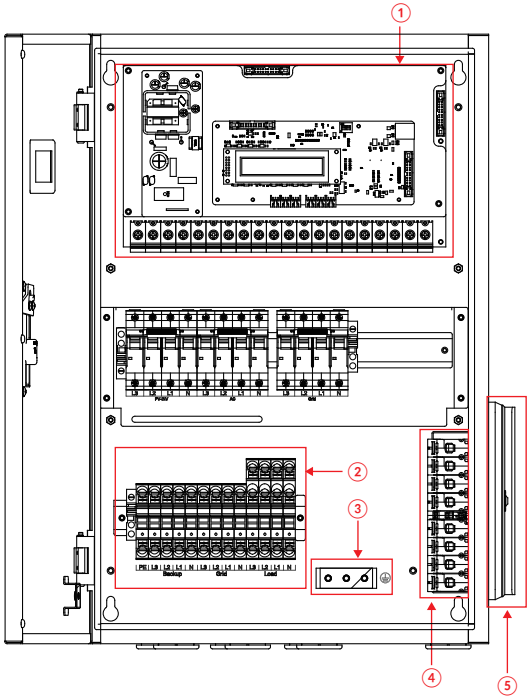




① Power connection port
② Communication port
③ LCD Screen
④ Lock



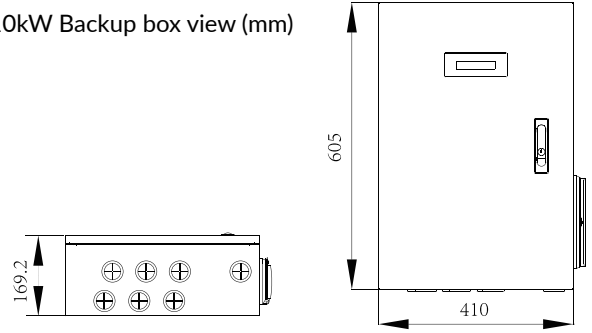
① Insulating plate
② Insulating plate
③ LCD Screen
④ Control switch



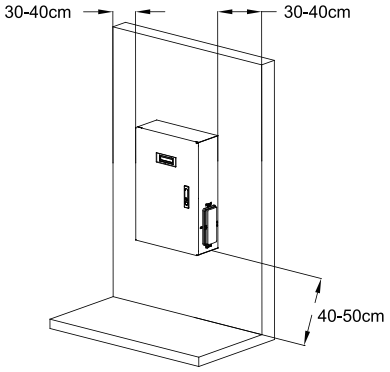
① Control panel
② Terminal block
③ Reserved grounding copper bar
④ Bypass switch
⑤ STW-10A

Instruction

10kW Backup box view (mm)



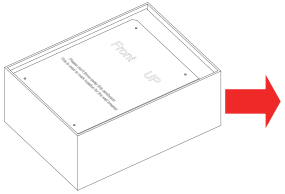
Minimum distance to adjacent objects:



Installation

Step 1

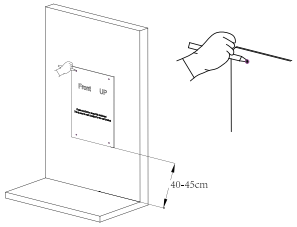
Take out the Backup Box-PLUS and accessories from the package.



Note: Please pay attention that the quantity of accessories is consistent with the details on the manual.

Step 2

Place the cardboard on the wall where the Backup Box-PLUS will be installed, and mark on the wall according to holes on the cardboard.

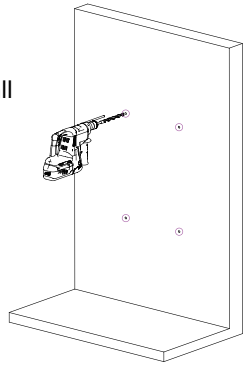


Note: Please ensure that the cardboard is level to prevent the Backup Box-PLUS from tilting after installation.

Installation

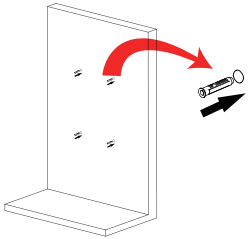
Step 3

Use the impact drill to drill holes according to the marks on the wall (Drill: M10, Depth: 70mm).



Step 4

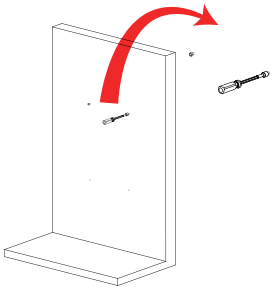
Take out the plastic expansion screws and vertically place the expansion tubes into the holes.



Note: The expansion tube should be completely buried in the hole and should not protrude from the wall.

Step 5

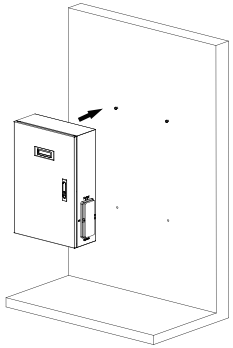
Lock the expansion screws into the two upper holes.



Note: Reserve a distance of 3-8mm between the bottom of the expansion screw and the wall to facilitate subsequent installation.

Step 6

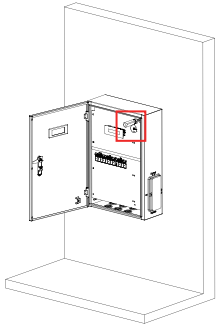
Hang the Backup Box-PLUS on the installed expansion bolt.



Step 7

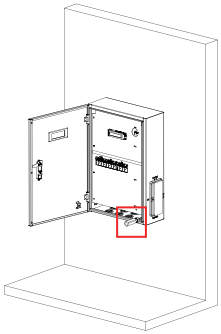
Use the key to open the upper cover, and use the SW10 sleeve to lock the two expansion screws above.

Note: The tool used in this step should be matched with the extension rod (about 20cm).



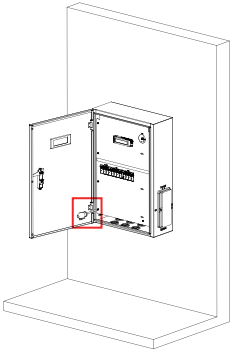
Step 8

Lock the two expansion screws at the bottom.

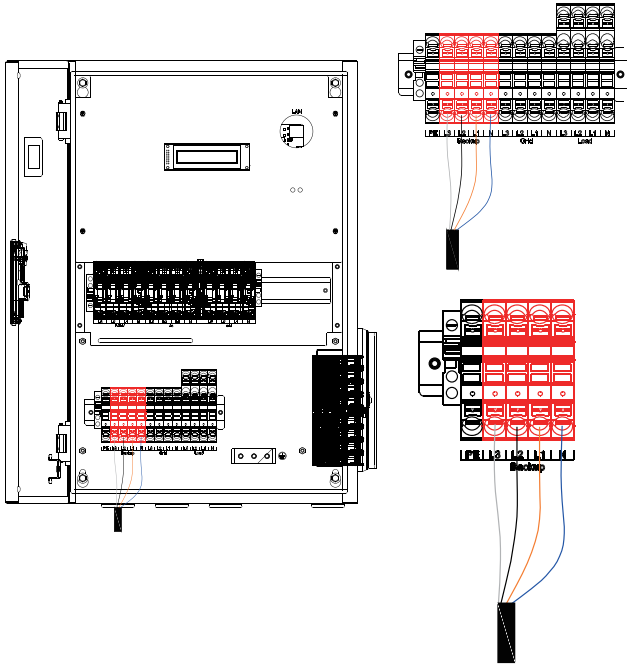


Step 9

Use a Philips screwdriver to remove the insulation plate.

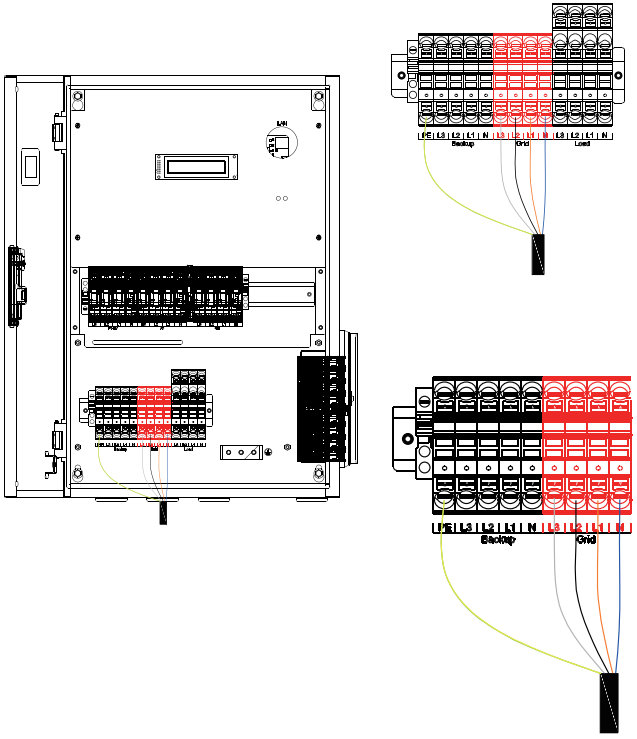


Step 10 Connect the backup cables.



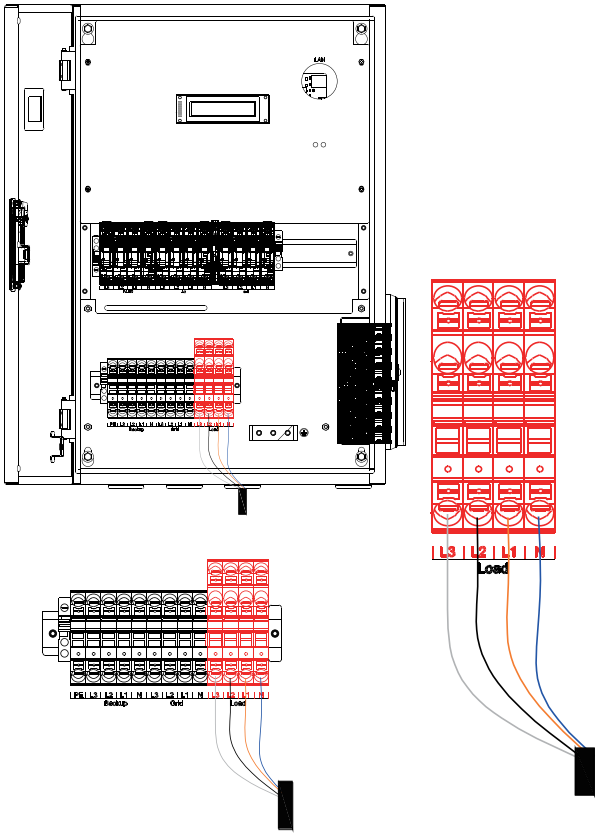
Note: When connecting cables, the wire harness must pass through the rubber plug at the bottom. The rubber plug should be cut with a knife along the middle cross.

Step 11 Connect the grid cables.



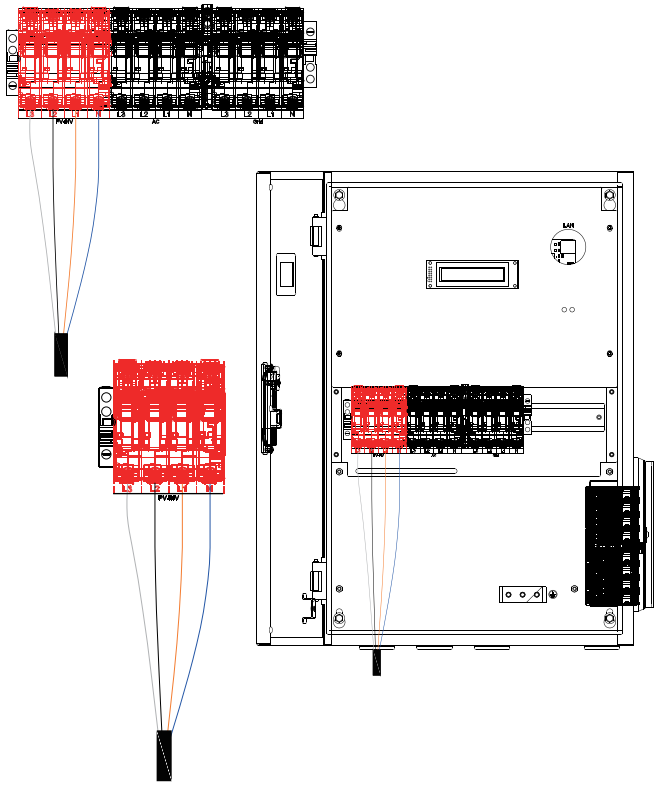
Step 12

Connect the Load cables.



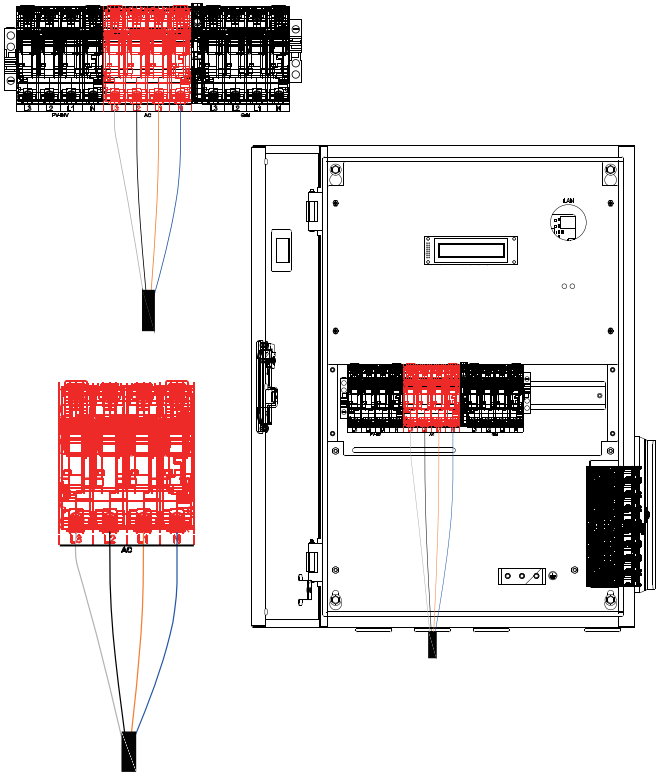
Step 13

Connect the PV-INV cables.



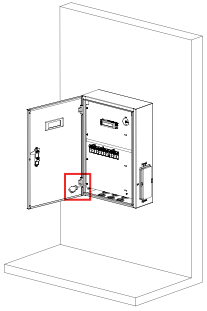
Step 14

Connect the AC cables.



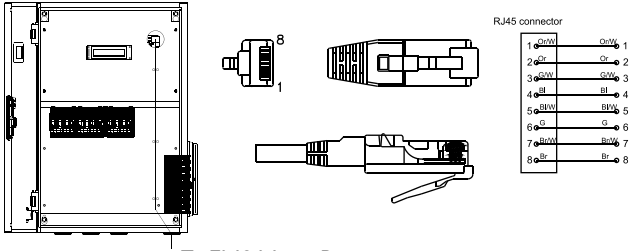
Step 15

Install the insulation plate removed in step 10.



Step 16

Connect the communication cables.



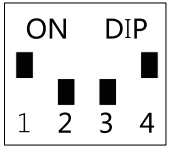
To EMS Meter Port

Note: The cable harness must be passed through the cable tie which is installed on the insulation plate. Then, tighten the cable tie.

Installation

Step 17

DIP Switch Configuration



DIP Switch	Description
1	Dial to "OFF" for three-phase system and "ON" for single-phase system.
2	Undefined
3	Undefined
4	Dial to "ON" for power recovery delay and "OFF" to turn off power recovery delay.

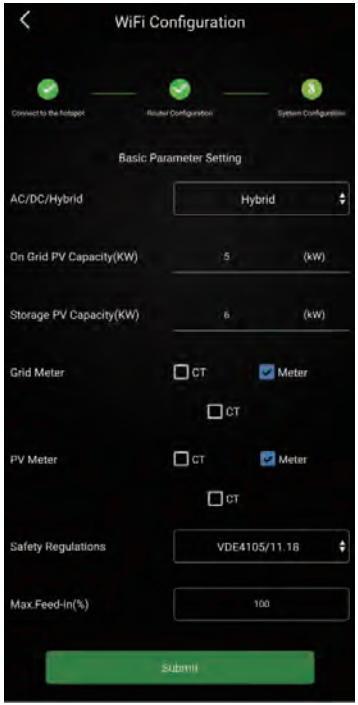
Step 18

After installation, close and lock the upper cover.

Note: Please keep the key properly.

Configuration

Configuration on AlphaAPP



Step 1

When the system mode is selected as DC, only tick "Meter" on the right of the "Grid Meter" .
When the system mode is selected as AC or Hybrid, tick both "Meter" on the right of the "Grid Meter" and "PV side meter".

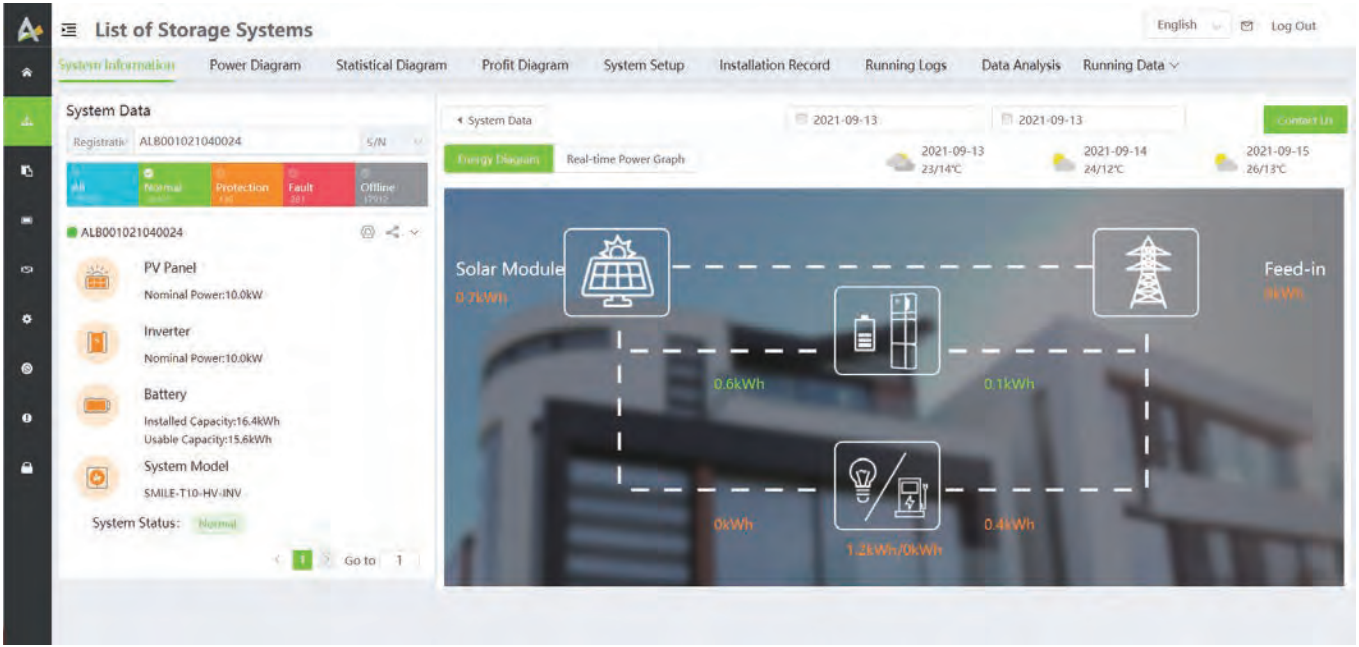
Step 2

Click "Submit" and enter the "System information" page to check the meter model. The setting is successful if meter model is Backup-Box-PLUS.

Note: It is forbidden to tick CT to modify the ratio.

Configuration on AlphaCloud.

Step 1 Log in to https://www.alphaess.com/, and input the system SN to check the status of your system.

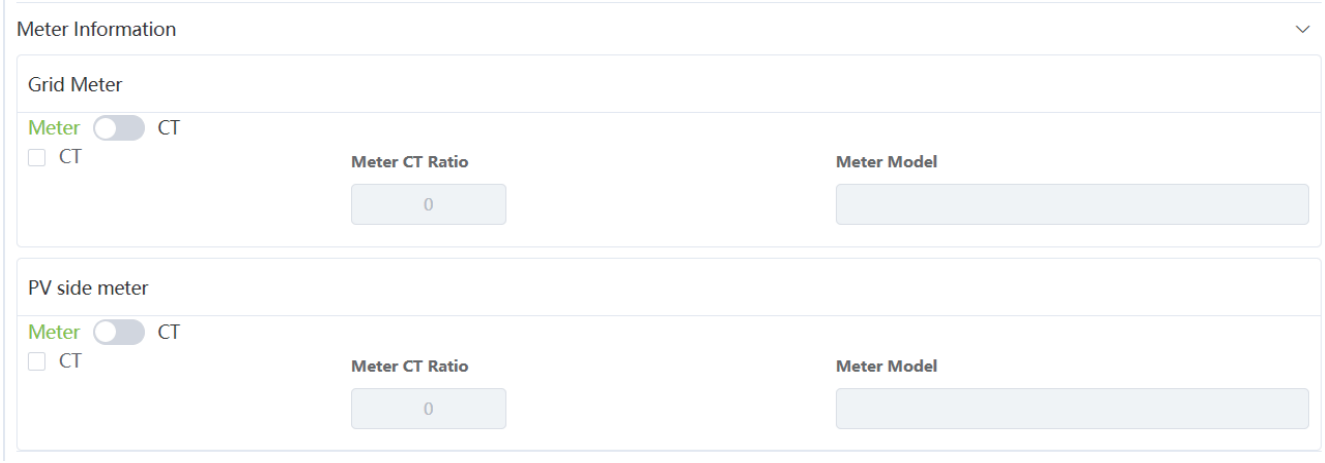


Configuration

Configuration on AlphaCloud.

Step 2 When the system mode is selected as DC, click the button under the "Grid Meter" to make it green.
When the system mode is selected as AC or Hybrid, click the buttons under the "Grid Meter" and "PV side meter" to make both green.

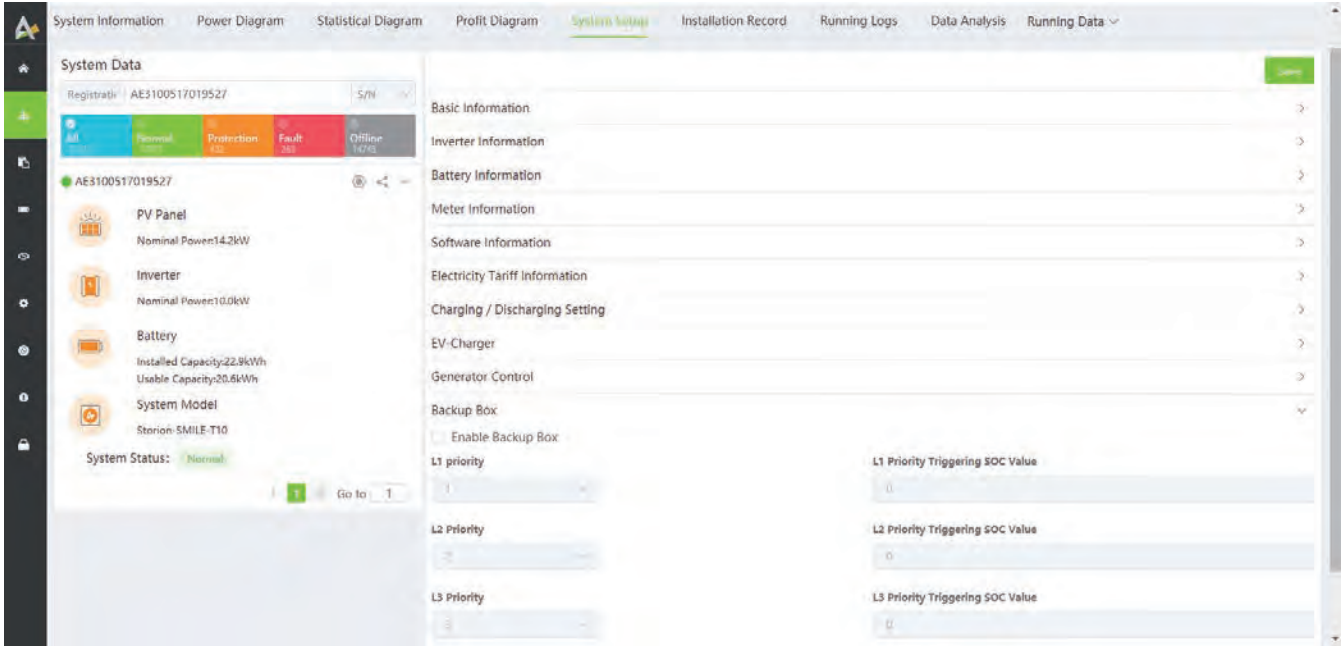
Step 3 Click "Save" and wait till the page is refreshed.
When the "Meter Model" displays BackupBox-PLUS, the setting is successful.



Note: It is forbidden to tick CT to modify the ratio.

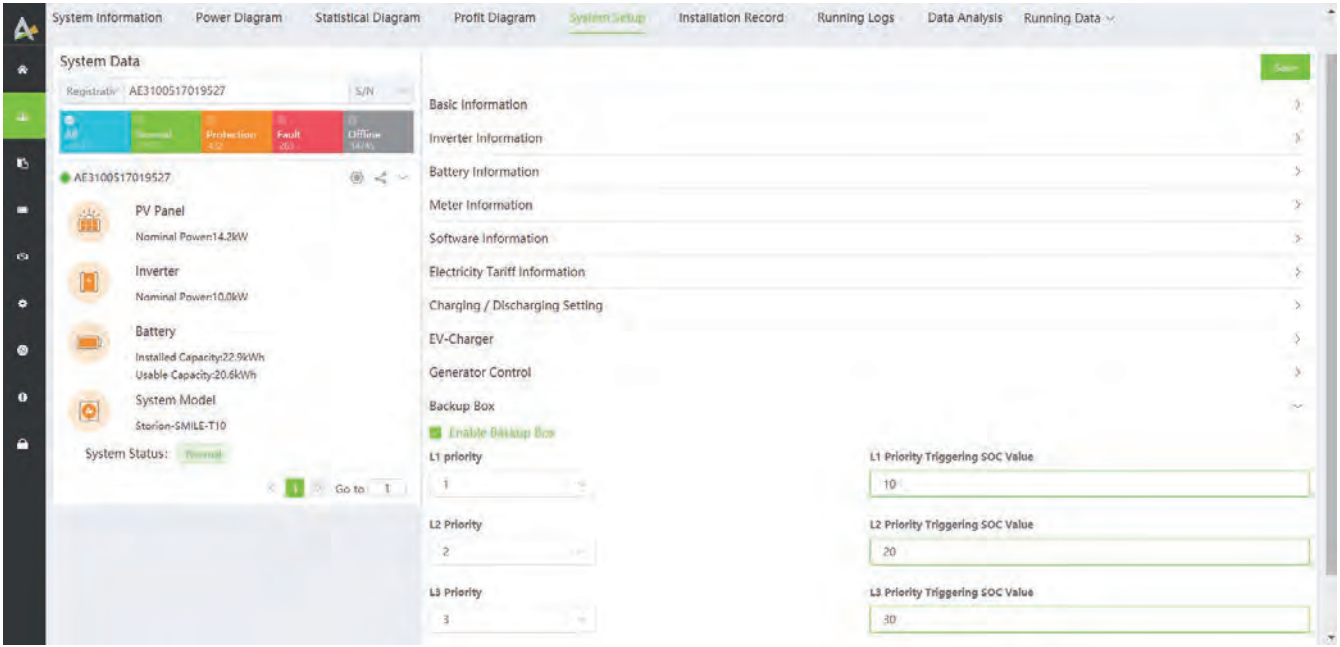
Configuration on AlphaCloud.

Step 4 Please log in to the AlphaCloud page, select "System Setup", and click "Backup Box".



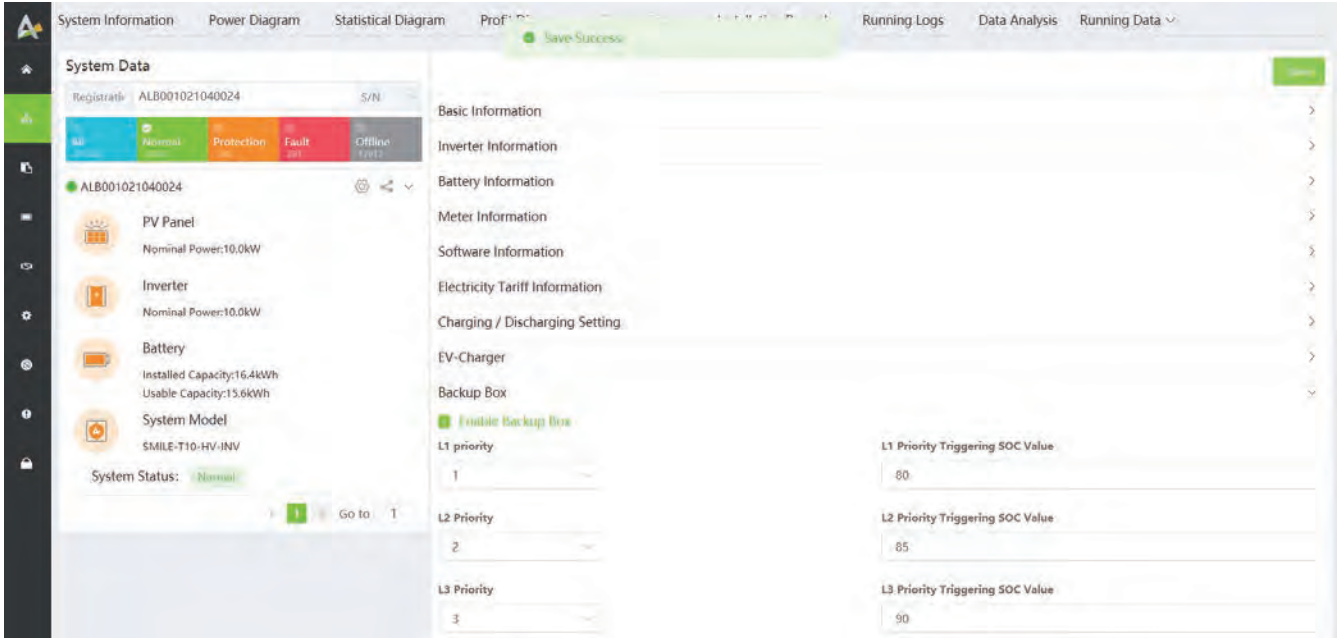
Configuration on AlphaCloud.

Step 5 Select "Enable Backup Box" and set different priorities and minimum SOC values for each phase.



Configuration on AlphaCloud.

Step 6 Complete all the setting steps above and click "Save" to enable the Backup Box function.



Specification

Model	Backup Box-PLUS
Phase	**Three Phase**
Communication	**RS-485**
Display	**LCD**
Operating Temperature	**-10 °C ~ 50 °C**
Humidity	**15% ~ 85%**
IP Protection	**IP21**
Dimension (W x D x H)	**410 x 169 x 605 mm**
Warranty	**5 Years**
Nominal Backup Power	**10 kW**
Grid Voltage Range	**184 ~ 264.5 V (L-N)**
Grid Frequency	**50 Hz**
Max. Output Current	**3 X 63 A**
Net Weight	**25 kg**

@AlphaEnergyStorageSystem @AlphaESS @alpha_ess @AlphaESS

Headquarter: Alpha ESS Co., Ltd.
☎ +86 513 806 068 91
✉ info@alpha-ess.com
🌐 www.alpha-ess.com
🏠 JiuHua Road 888, Nantong High-Tech Industrial Development Zone, Nantong City, 226300

Germany: Alpha ESS Europe GmbH
☎ +49 610 3459 1601
✉ europe@alpha-ess.de
🌐 www.alpha-ess.de
🏠 Paul-Ehrlich-Straße 1a, 63225 Langen, Hessen

Suzhou: Alpha ESS Suzhou Co., Ltd.
☎ +86 512 6828 7609
✉ info@alpha-ess.com
🌐 www.alpha-ess.com
🏠 Building 10-A, Canal Town Industrial Park, 99 Taihu E Rd, Wuzhong District, Suzhou 215000

Italy: Alpha ESS Italy S.r.l.
☎ +39 599 239 50
✉ info@alpha-ess.it
🌐 www.alpha-ess.it
🏠 Via Loda,17-41013 Castelfranco Emilia(MO)

Australia: Alpha ESS Australia Pty. Ltd.
☎ +61 402 500 520 (Sales)
+61 1300 968 933 (Technical Support)
✉ australia@alpha-ess.com
🌐 www.alpha-ess.com.au
🏠 Unit 1, 2 Ralph Street Alexandria NSW 2015

Korea: Alpha ESS Korea Co., Ltd
☎ +82 64 721 2004
✉ korea@alpha-ess.com
🏠 2F, 19-4, Nohyeong 11-gil, Jeju-si, Jeju-do, Republic of Korea

UK: Alpha ESS UK Co., Ltd
✉ uk@alpha-ess.com
🏠 Drake House, Long Street, Dursley, gl11 4hh