

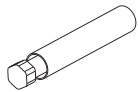
QUICK INSTALLATION GUIDE

Backup Box-PLUS
V02



Parting List

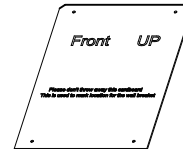
Backup Box-PLUS



M8 expansion screw X4

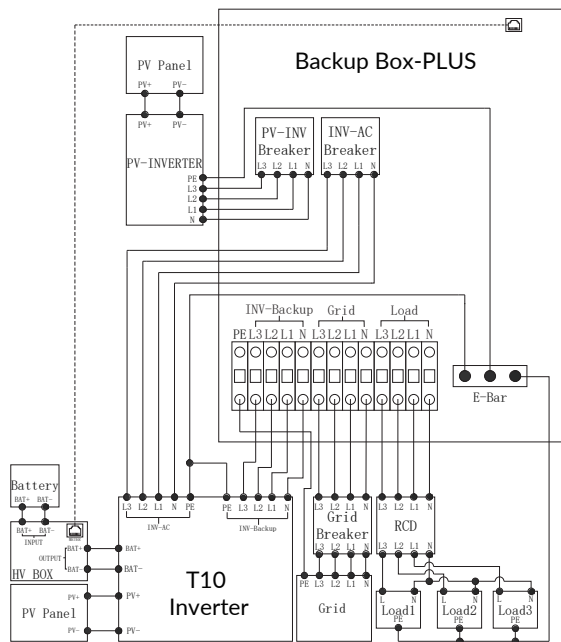


Quick installation guide X1



Positioning board x1

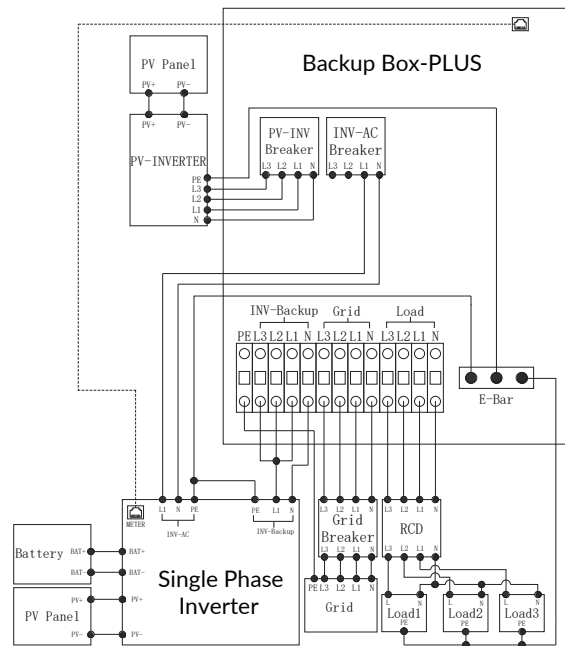
System Wiring Diagram



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

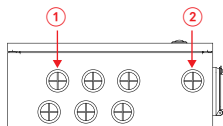


Please connect PE cable between Backup Box and the inverter. If the inverter does not have PE port, there is no need to connect PE cable.

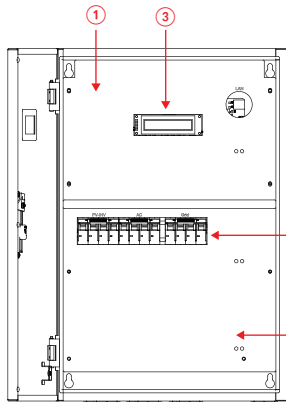
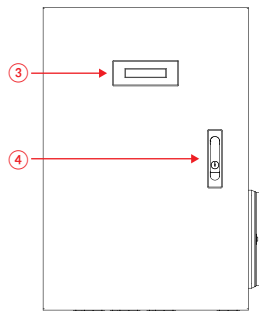


Backup Box-PLUS wiring diagram for single-phase inverter.

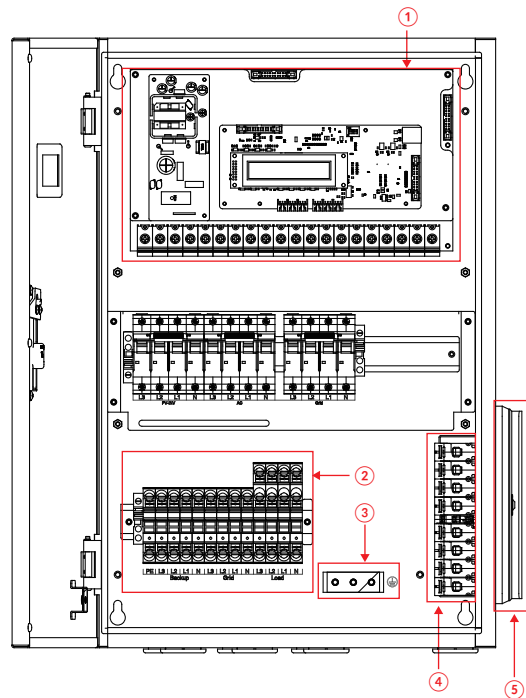
Instruction



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



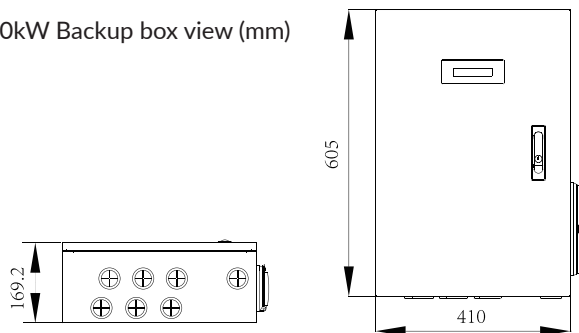
- ① Insulating plate
- ② Insulating plate
- ③ LCD Screen
- ④ Control switch



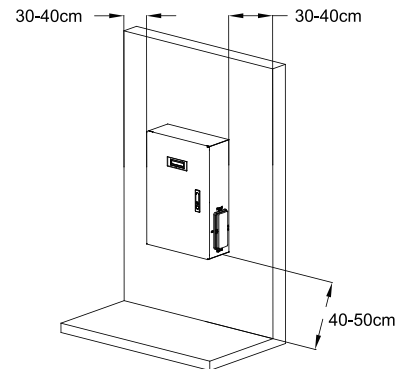
- ① Control panel
- ② Terminal block
- ③ Reserved grounding copper bar
- ④ Bypass switch
- ⑤ STW-10A

Instruction

10kW Backup box view (mm)



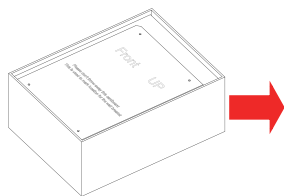
Minimum distance to
adjacent objects:



Installation

Step 1

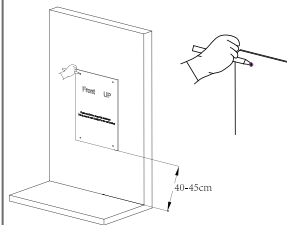
Take out the Backup Box-PLUS and accessories from the package.



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.

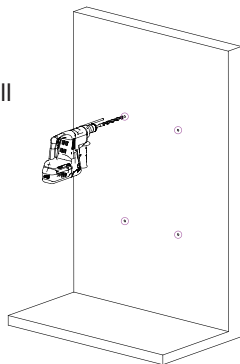


Note: Please ensure that the cardboard is level to prevent the Backup Box-PLUS from tilting after installation.

Installation

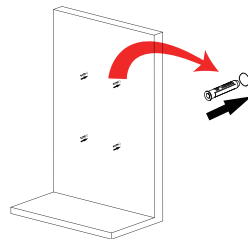
Step 3

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



Step 4

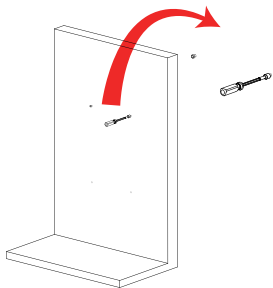
Take out the plastic expansion screws and vertically place the expansion tubes into the holes.



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

Step 5

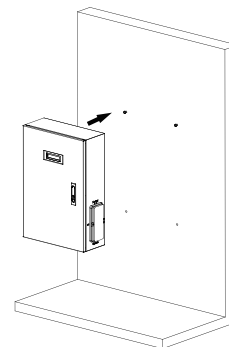
Lock the expansion screws into the two upper holes.



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.



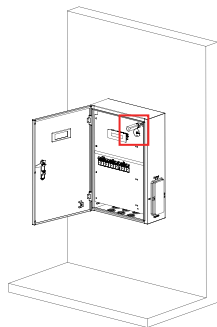
Installation

Step 7

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

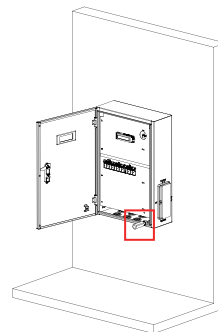


Note: The tool used in this step should be matched with the extension rod (about 20cm).



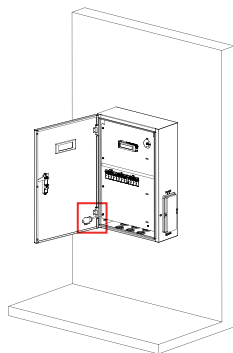
Step 8

Lock the two expansion screws at the bottom.

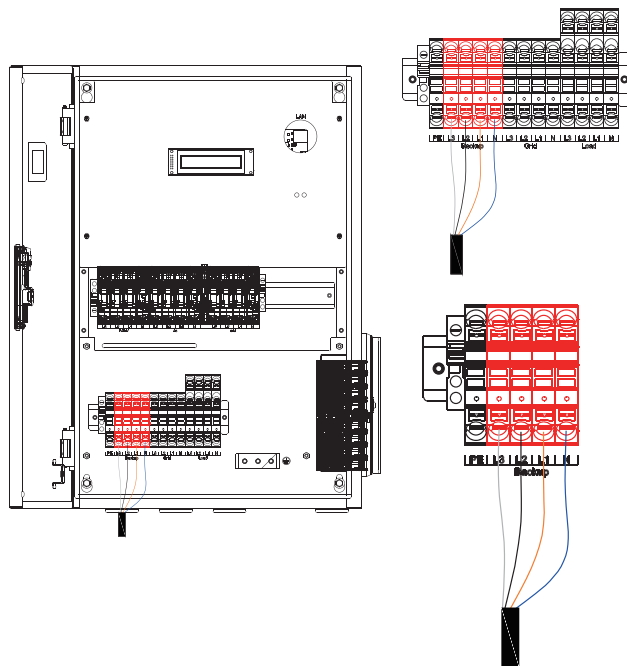


Step 9

Use a Philips screwdriver to remove the insulation plate.

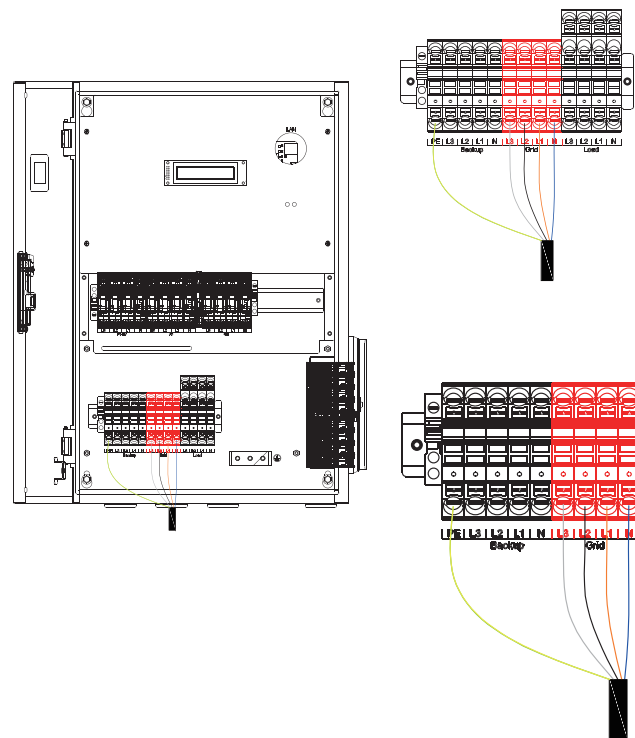


Step 10 Connect the backup cables.



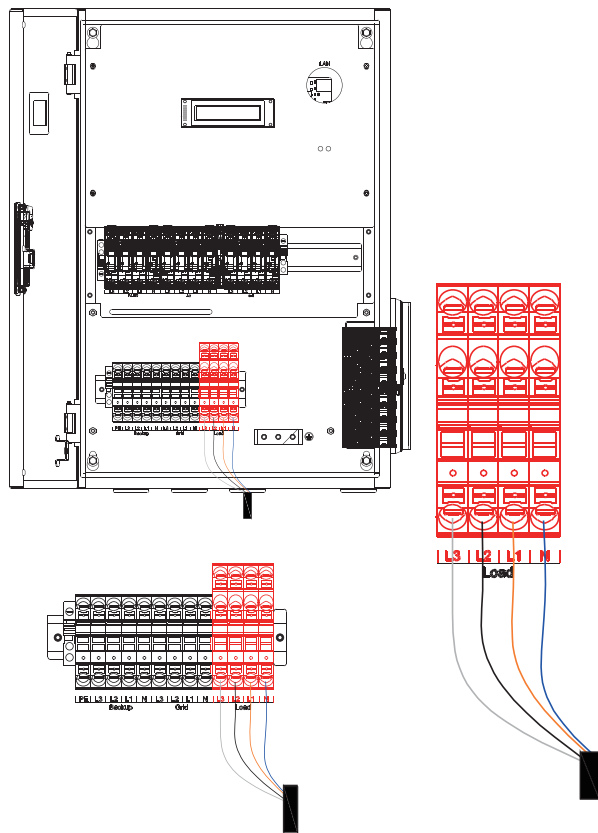
Note: When connecting cables, the wire harness must pass through the rubber plug at the bottom. The rubber plug should be cut with a knife along the middle cross.

Step 11 Connect the grid cables.

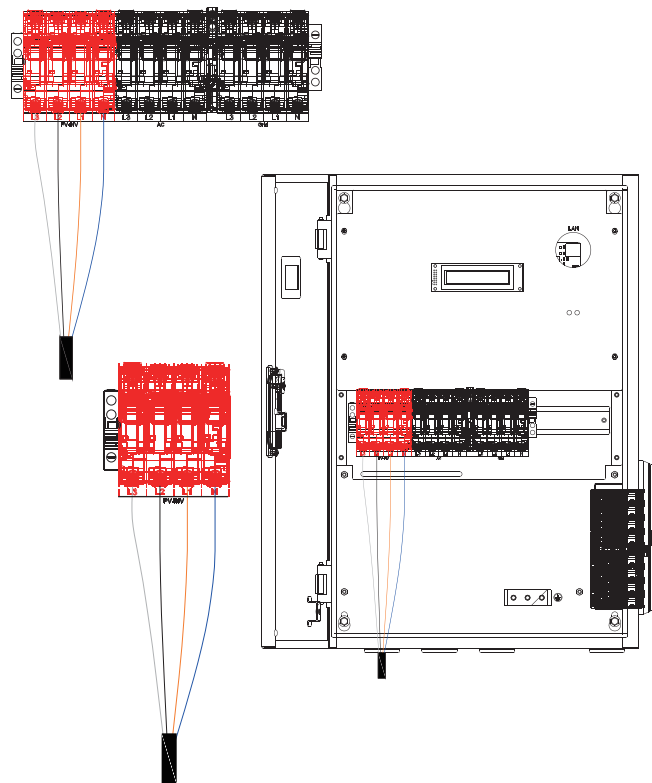


Installation

Step 12 Connect the Load cables.

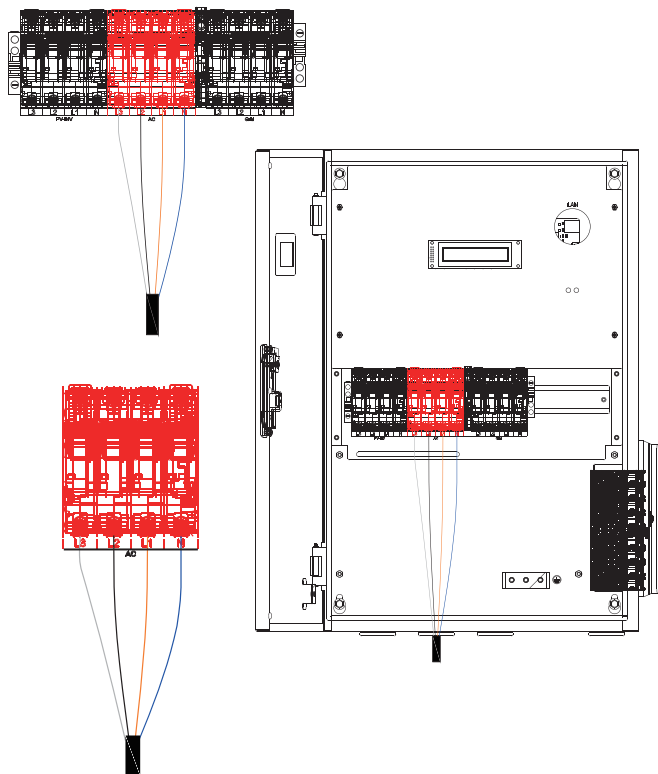


Step 13 Connect the PV-INV cables.



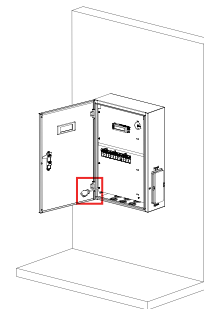
Installation

Step 14 Connect the AC cables.



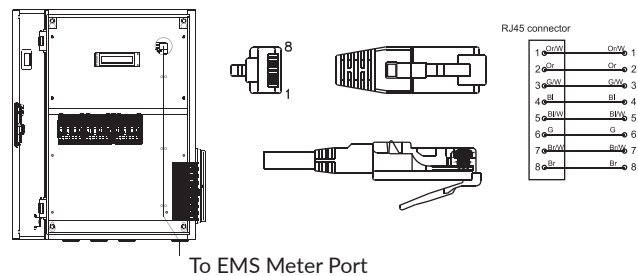
Step 15

Install the insulation plate removed in step 10.



Step 16

Connect the communication cables.

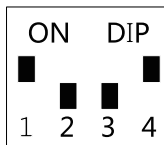


Note: The cable harness must be passed through the cable tie which is installed on the insulation plate. Then, tighten the cable tie.

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

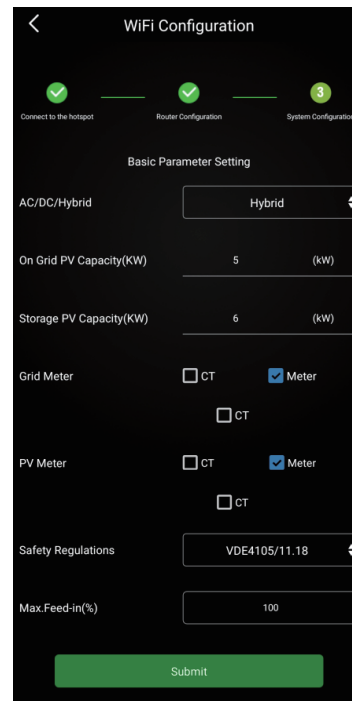
Step 1

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

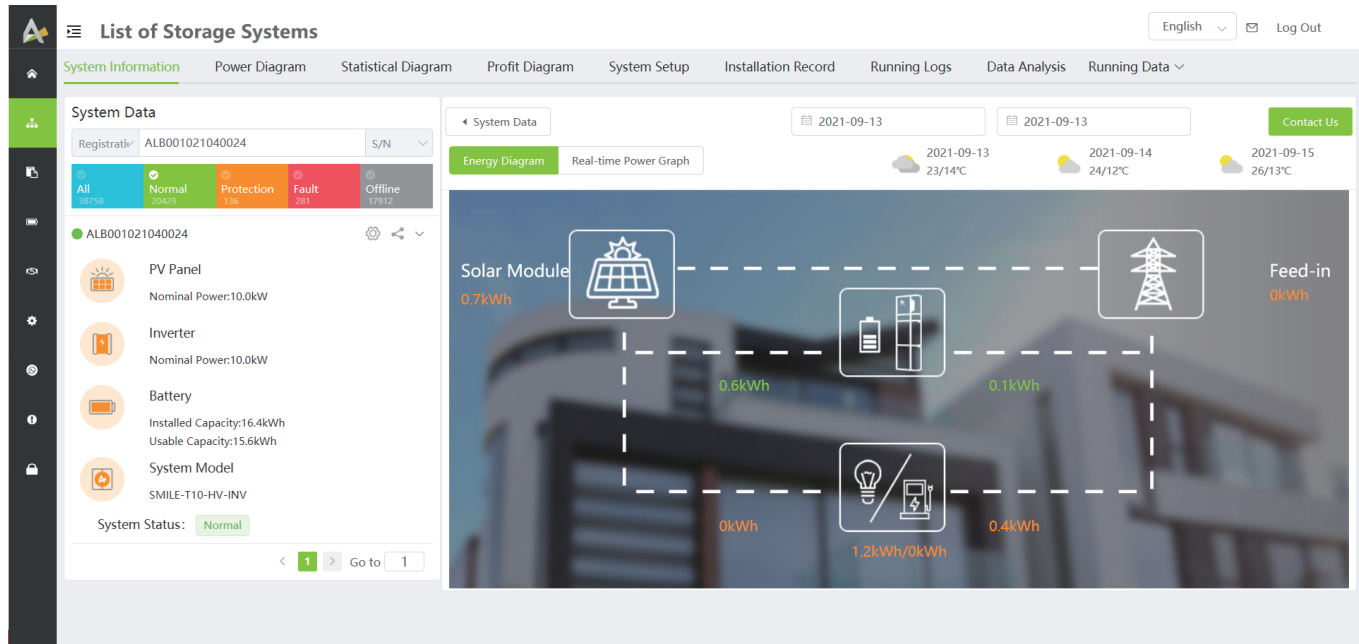
Click "Submit" and enter the "System information" page to check the meter model. The setting is successful if meter model is Backup-Box-PLUS.



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 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.

Meter Information

Grid Meter

Meter ☒ CT

☐ CT

Meter CT Ratio

0

Meter Model

PV side meter

Meter ☒ CT

☐ CT

Meter CT Ratio

0

Meter Model



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".

The screenshot displays the AlphaCloud System Setup interface. The top navigation bar includes tabs for System Information, Power Diagram, Statistical Diagram, Profit Diagram, **System Setup** (highlighted), Installation Record, Running Logs, Data Analysis, and Running Data. The left sidebar contains icons for home, users, devices, settings, and other functions.

System Data

Registrar: AE3100517019527 S/N

System Status: **Normal**

System Components:

- PV Panel**: Nominal Power: 14.2kW
- Inverter**: Nominal Power: 10.0kW
- Battery**: Installed Capacity: 22.9kWh, Usable Capacity: 20.6kWh
- System Model**: Storion-SMILE-T10

System Setup

Basic Information

Inverter Information

Battery Information

Meter Information

Software Information

Electricity Tariff Information

Charging / Discharging Setting

EV-Charger

Generator Control

Backup Box

☐ Enable Backup Box

L1 priority

1

L2 Priority

2

L3 Priority

3

L1 Priority Triggering SOC Value

0

L2 Priority Triggering SOC Value

0

L3 Priority Triggering SOC Value

0

Save

Configuration on AlphaCloud.

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

System Information

Power Diagram

Statistical Diagram

Profit Diagram

System Setup

Installation Record

Running Logs

Data Analysis

Running Data

System Data

Registratr AE3100517019527 S/N

All 33413

Normal 17973

Protection 432

Fault 263

Offline 14745

● AE3100517019527

PV Panel
Nominal Power:14.2kW

Inverter
Nominal Power:10.0kW

Battery
Installed Capacity:22.9kWh
Usable Capacity:20.6kWh

System Model
Storion-SMILE-T10

System Status: Normal

< 1 > Go to 1

Basic Information

Inverter Information

Battery Information

Meter Information

Software Information

Electricity Tariff Information

Charging / Discharging Setting

EV-Charger

Generator Control

Backup Box

Save

>

>

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☒ Enable Backup Box

L1 priority

L2 Priority

L3 Priority

1

2

3

L1 Priority Triggering SOC Value

10

L2 Priority Triggering SOC Value

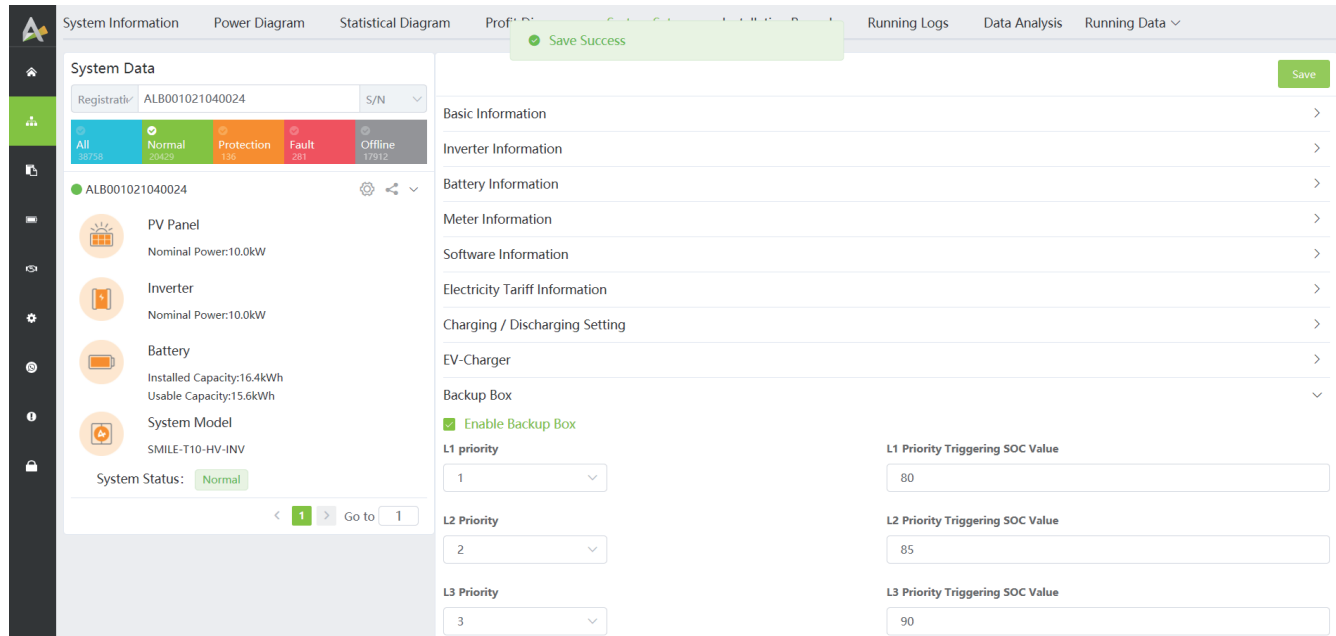
20

L3 Priority Triggering SOC Value

30

Configuration on AlphaCloud.

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



The screenshot displays the AlphaCloud configuration interface. At the top, a navigation bar includes tabs for System Information, Power Diagram, Statistical Diagram, Profit Diagram, Control Strategy, Installation Report, Running Logs, Data Analysis, and Running Data. A green notification bubble in the top center reads "Save Success".

The left sidebar contains a vertical menu with icons for home, user, system, settings, and other functions. The main content area is titled "System Data" and shows a list of system components: PV Panel, Inverter, Battery, and System Model. The "System Status" is indicated as "Normal".

The right panel displays the "Backup Box" configuration settings. The "Enable Backup Box" checkbox is checked. Below this, there are three sections for L1, L2, and L3 priority triggering SOC values:

- L1 priority:** Set to 1. L1 Priority Triggering SOC Value: 80.
- L2 priority:** Set to 2. L2 Priority Triggering SOC Value: 85.
- L3 priority:** Set to 3. L3 Priority Triggering SOC Value: 90.

A "Save" button is located in the top right corner of the configuration panel.

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

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