



## **Pylontech Force H Series Battery & Solis Connection Guide**

## Note:

This is an instruction for connection and commissioning between **Force H** battery and **Solis HV** series. Applicable battery models and inverter models are as follows:

Battery models	Inverter models
Force H1	S6-EH3P20K-H
Force H1-V2	RH1-1P-HVES-5G series
Force H2	RHI-3P-HVES-5G series
Force H2-V2	S5-EH1P(3-6)K-L
Force H3	S6-EA1P(3.6-6)K-L
	S6-EH1P(3-6)K-L-EU
	S6-EH3P(5-10)K-H-EU
	S6-EH1P(3.8-11.4)K-H-US
	S6-EH3P(29.9-50)K-H

For details of the connection or commissioning, please go to user manual of the battery and the inverter if you cannot find it in this guide.

## Precautions:

### Please ensure:

1. Battery and inverter are not damaged
2. The accessories in the original packaging are consistent with the packing list.
3. The battery breaker is turned off before making any installation.



Breaker status	Status color	Pic.
OFF	GREEN	
ON	RED	

## Installation steps:

### 1. Power cable wiring:

Use the power cables that came in the original packaging of the Pylon products.

Items	Model	Force H1	Force H1- V2	Force H2	Force V2	H2-	Force H3
DC+ red external power cable		1pcs, 10 AWG	1pcs, 8 AWG	1pcs, 10 AWG	1pcs, 8 AWG		1pcs, 8 AWG
DC- black external power cable		1pcs, 10 AWG	1pcs, 8 AWG	1pcs, 10 AWG	1pcs, 8 AWG		1pcs, 8 AWG
Yellow-green grounding cable		1pcs, 10 AWG	1pcs, 10 AWG	1pcs, 10 AWG	1pcs, 10 AWG		1pcs, 10 AWG

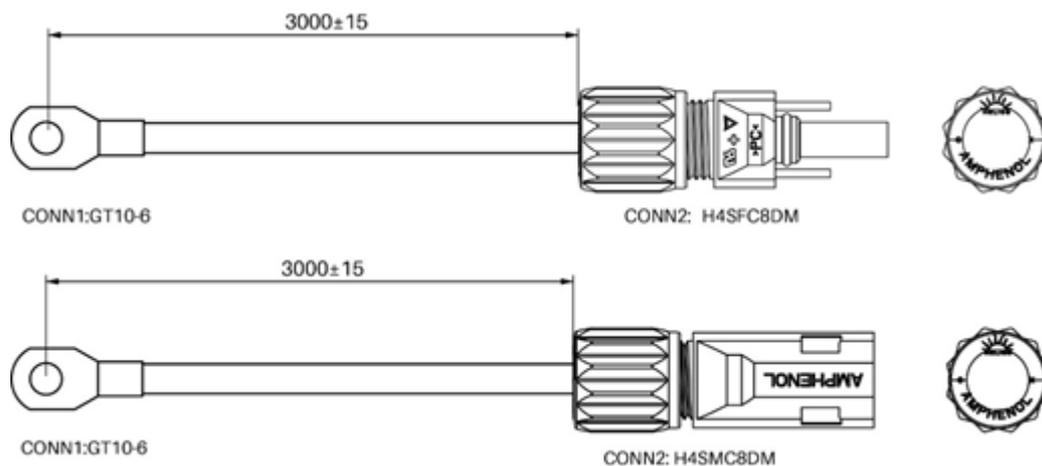


Figure 1: DC+ red external power cable and DC- black external power cable

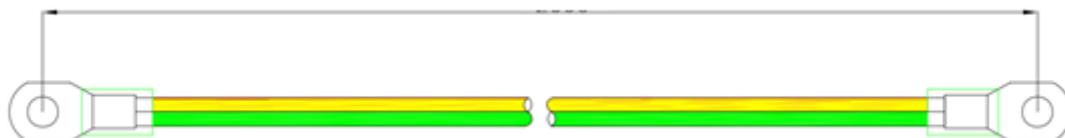
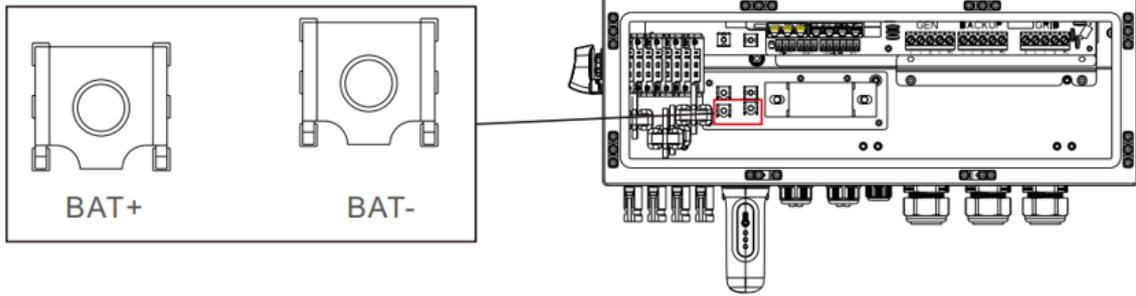


Figure 2: yellow-green grounding cable

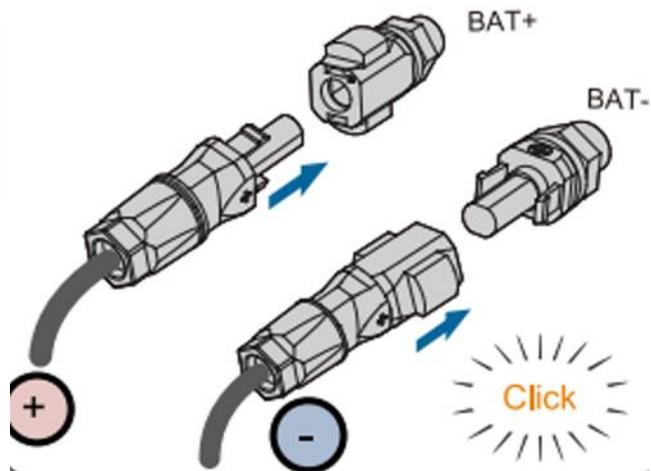
1) Connecting power cables



2) Connect the power cables to battery "D+" & "D-" and inverter "BAT".



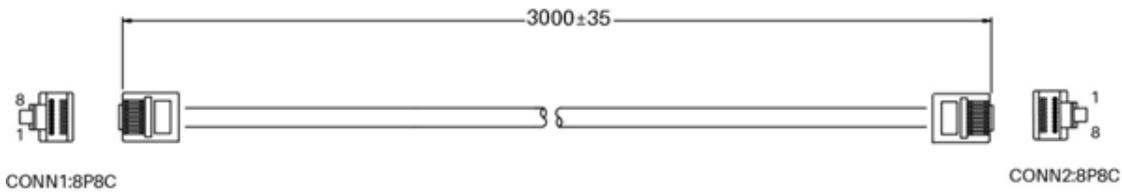
**Battery side: Connect power cables.**



**Inverter side: Connect power cables.**

## 2. Communication Cable Wiring:

**NOTE:** Use the cables included with battery packing list or in inverter components box.



### Battery side:

#### Force H1:

Connect the communication cable to battery “CAN” port (red box).  
And fasten the gland for water-proof.



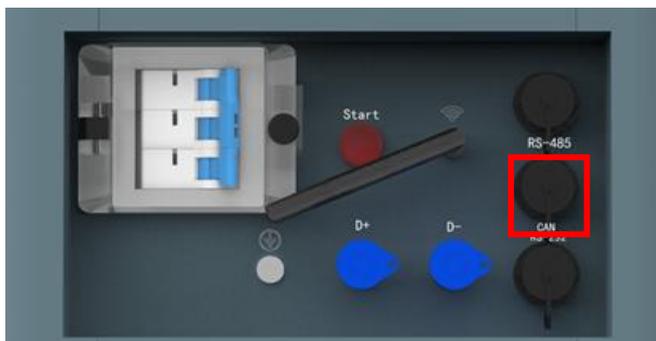
#### Force H1-V2:

Connect the communication cable to battery “CAN” port (red box).  
And fasten the gland for water-proof.



#### Force H2:

Connect the communication cable to battery “CAN” port (red box).  
And fasten the gland for water-proof.



**Force H2-V2:**

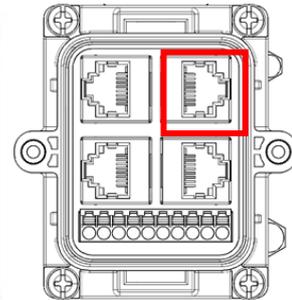
Connect the communication cable to battery “CAN” port (red box).  
And fasten the gland for water-proof.



**Force H3:**

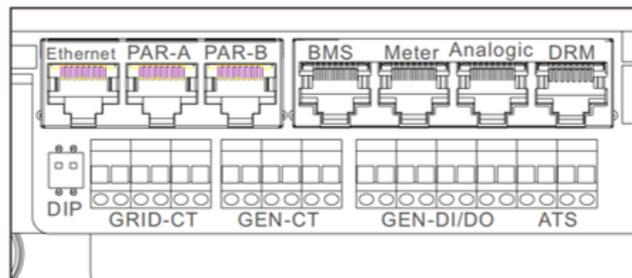
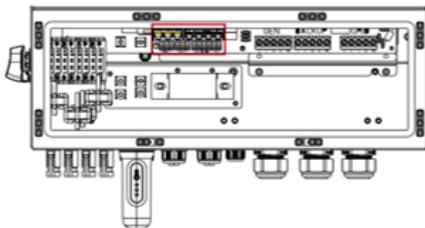
Loosen the 2 screws (green box) on the cover (blue box) as follows, then you can see the CAN port.

Connect the communication cable to battery “CAN” port (red box).  
And reinstall the cover for water-proof.



**Inverter side:**

Connect the communication cable to inverter “BMS” port.



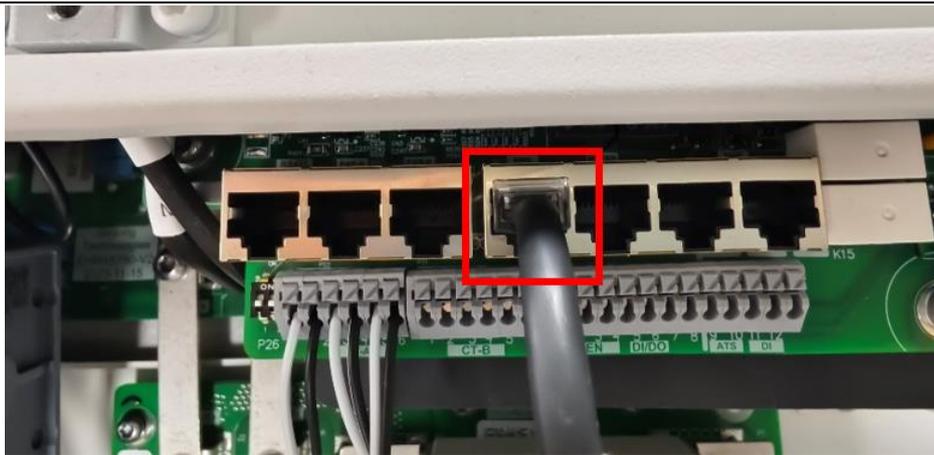
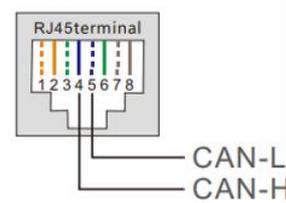


Figure3: Connection of the communication cable

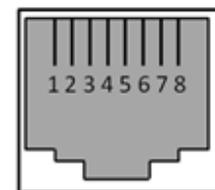
Pin definition of the inverter BMS port is following EIA/TIA 568B.  
 CAN-H on Pin 4: blue  
 CAN-L on Pin 5: blue/white



**Note: please follow the pin sequence of the initial RJ45 as below.**

No.	CAN	Color
1	---	Orange&White
2	GND	Orange
3	---	Green&White
4	CANH	Blue
5	CANL	Blue&White
6	---	Green
7	---	Brown&White
8	---	Brown

Figure 4:Pins setup of the communication cable



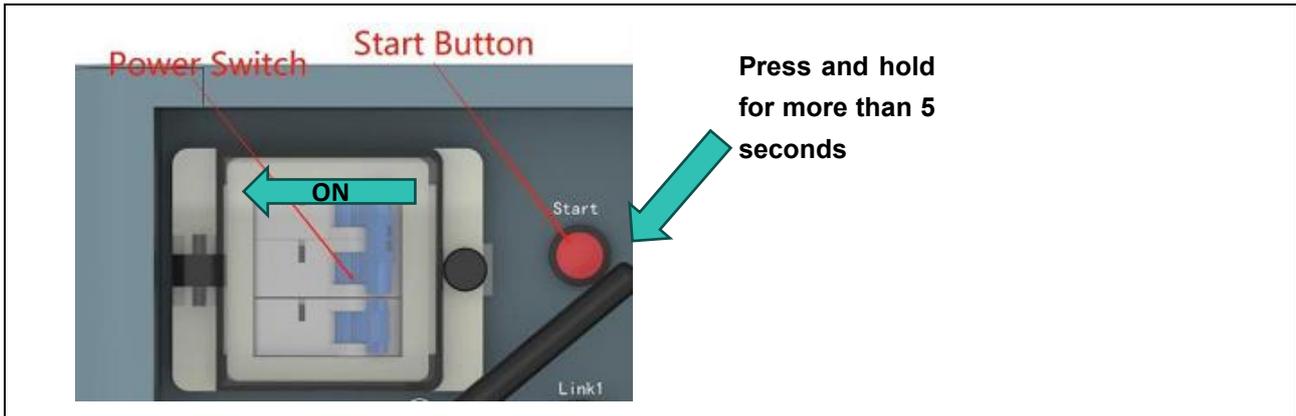
RJ45 Port



RJ45 Plug

### 3. Turn on Force system and Solis inverter:

1. Turn on the AC switch between inverter and grid.
2. Turn on the DC switch between the Pylontech battery and inverter.
3. Switch on the main breaker on the Battery controller.
4. Press and hold the "Start" button of Force H system for more than 5sec until the buzzer rings, to turn on controller.
5. Turn on the DC switch between inverter and PV. (if applicable)
6. Turn on the DC switch of inverter. (if applicable)



## Inverter Commissioning:

- 1) Download and install SolisCloud app on your smart phone and connect inverter via wireless.

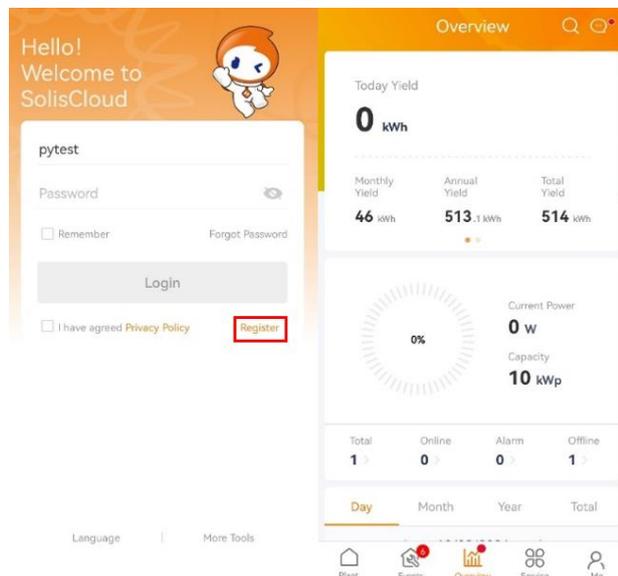
There are three ways to download and install the latest APP:

1. You can visit [www.soliscloud.com](http://www.soliscloud.com) to download the latest version APP.
2. You can search "**SolisCloud**" in Google Play or App Store.
3. You can scan this QR code below to download "**SolisCloud**".

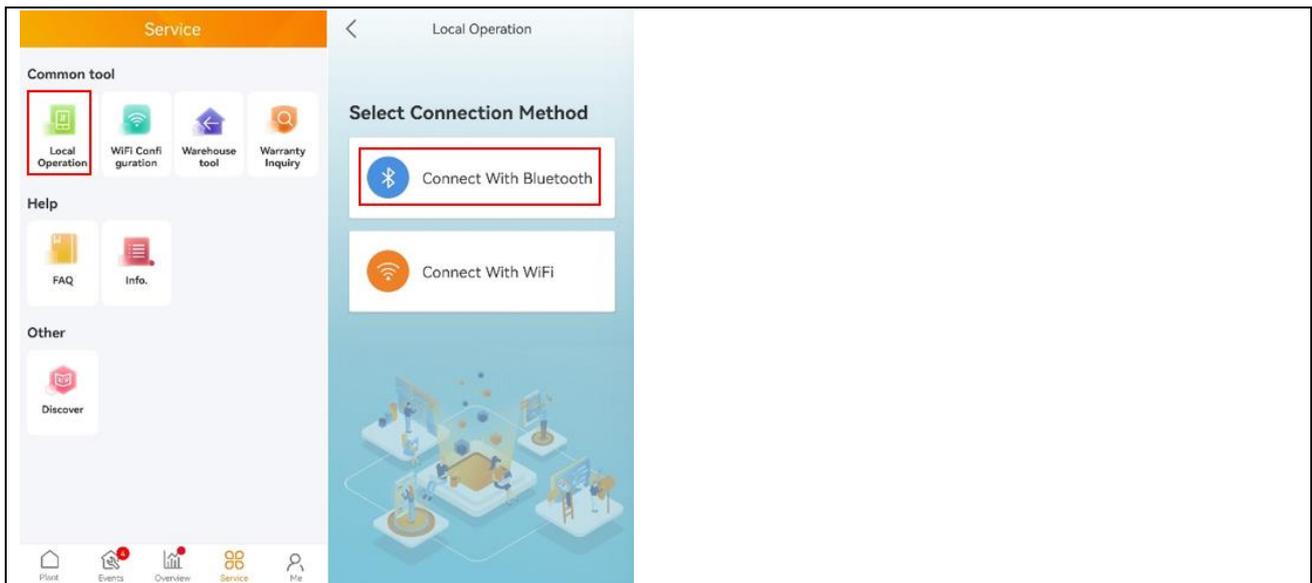


- 2) Open APP

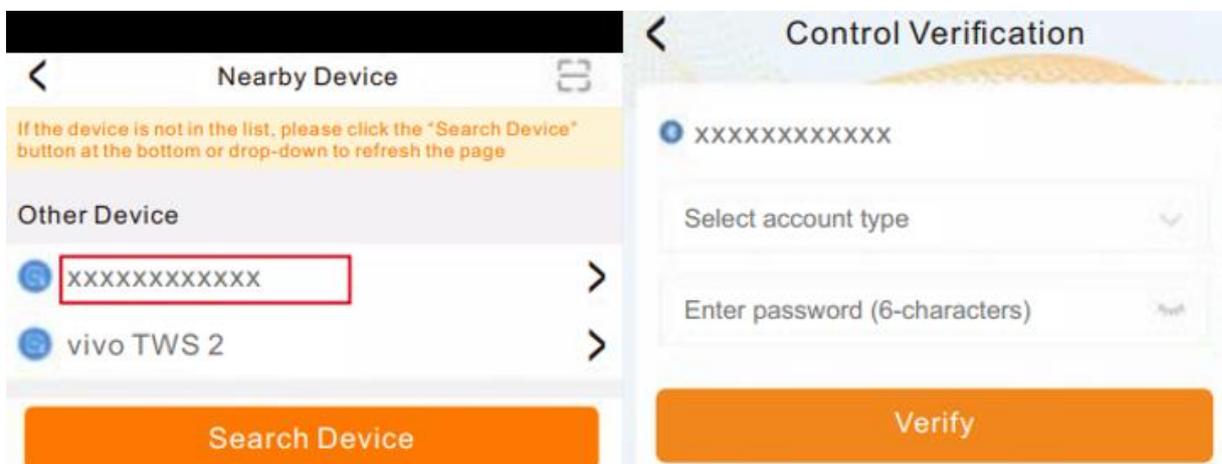
Register an account and login



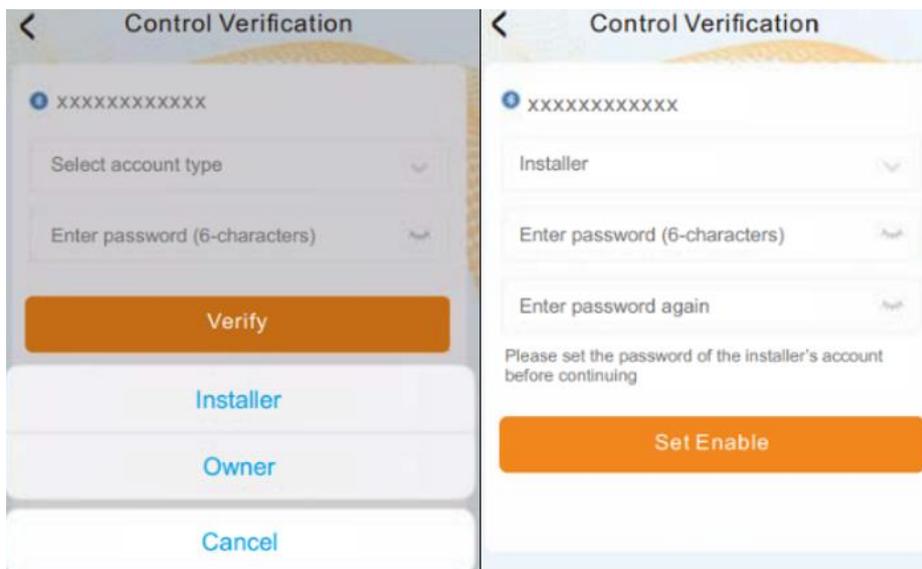
- 3) Click on Services and select Local Settings, click on Use Bluetooth Connection



4) Select the Bluetooth signal from the inverter. (Bluetooth Name: Inverter SN)



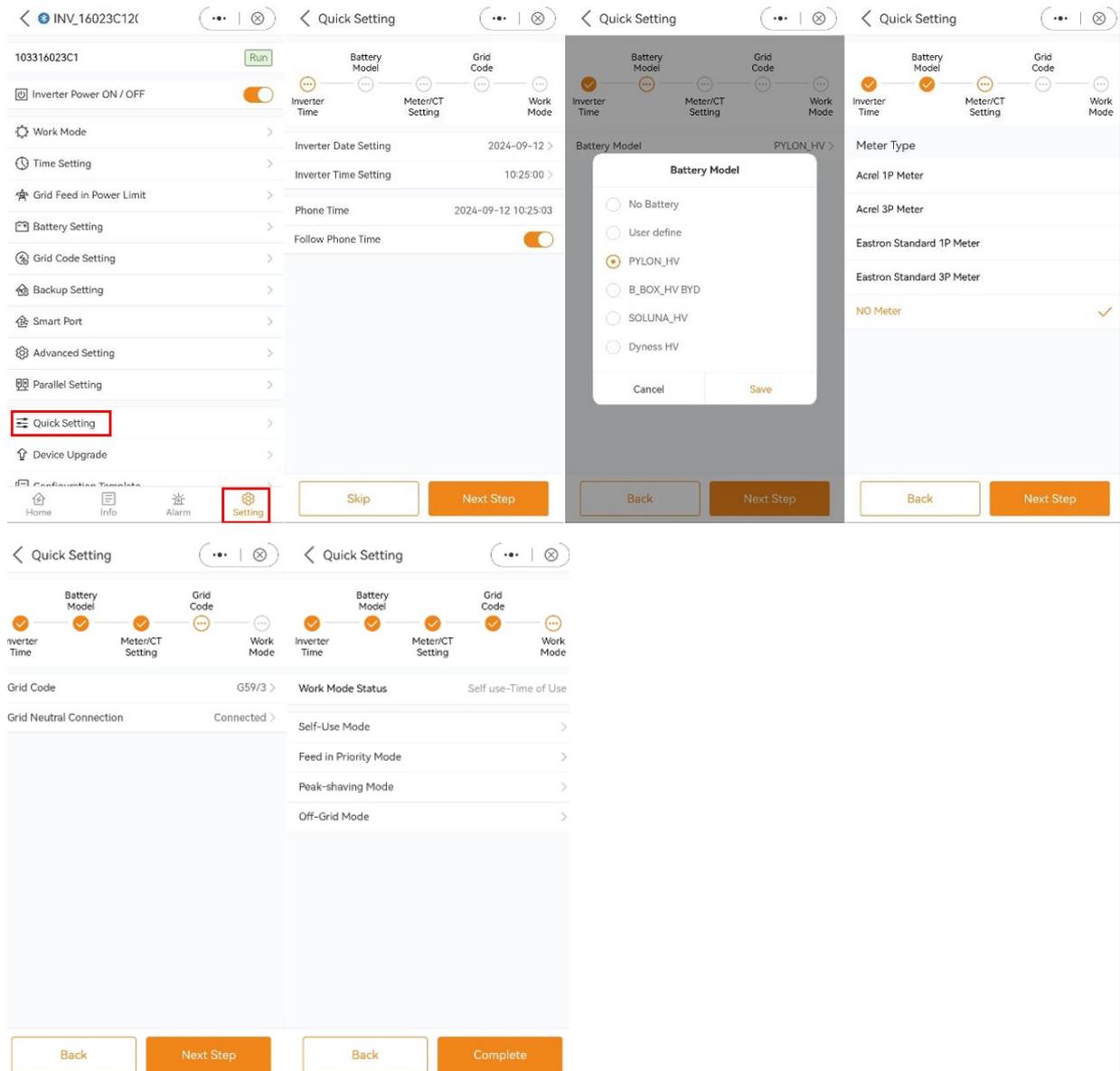
5) Choose whether you are an installer or an owner. Then set your own initial password for control verification.



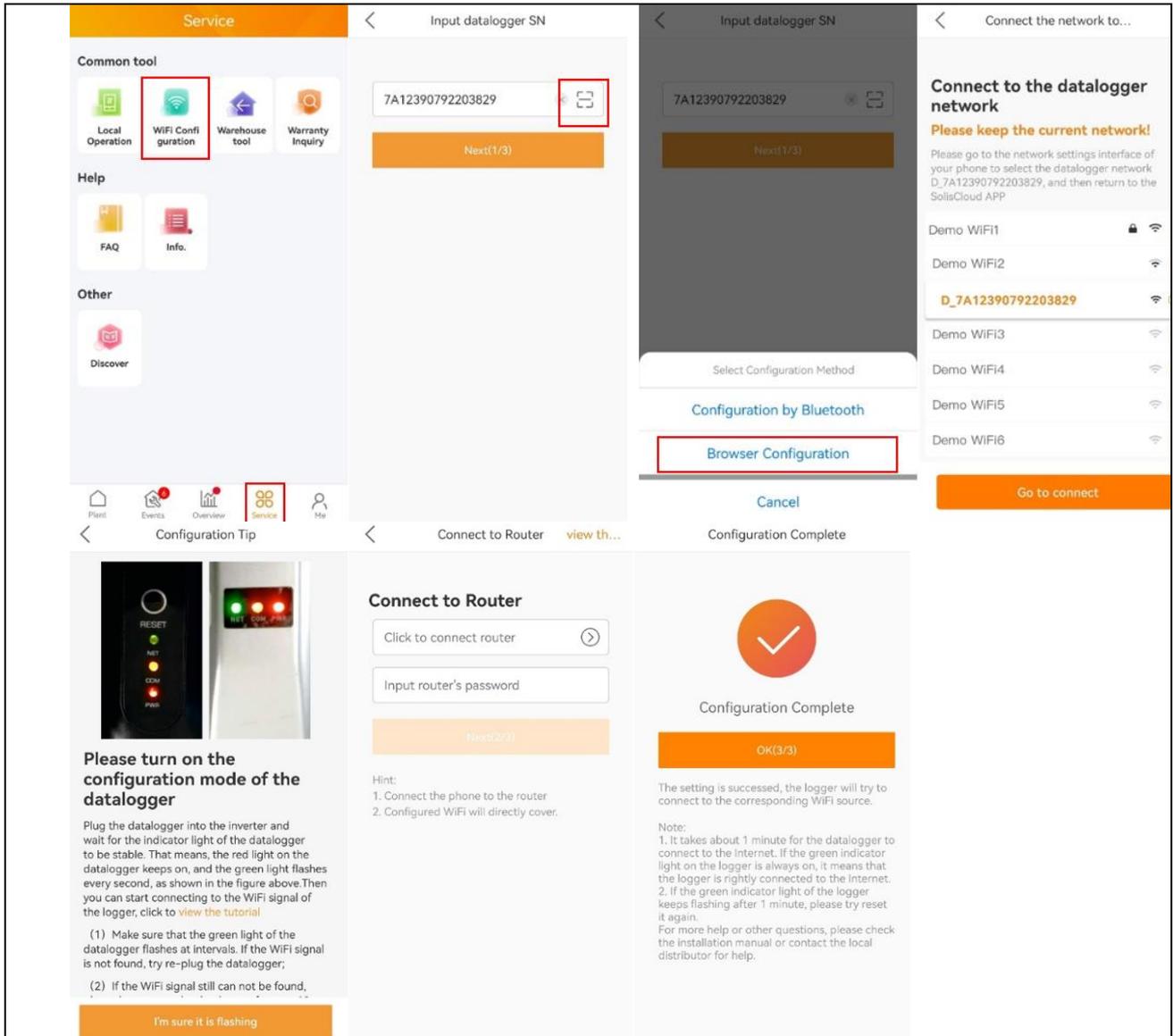
6) Quick Setting

Click Settings and select Quick Setting

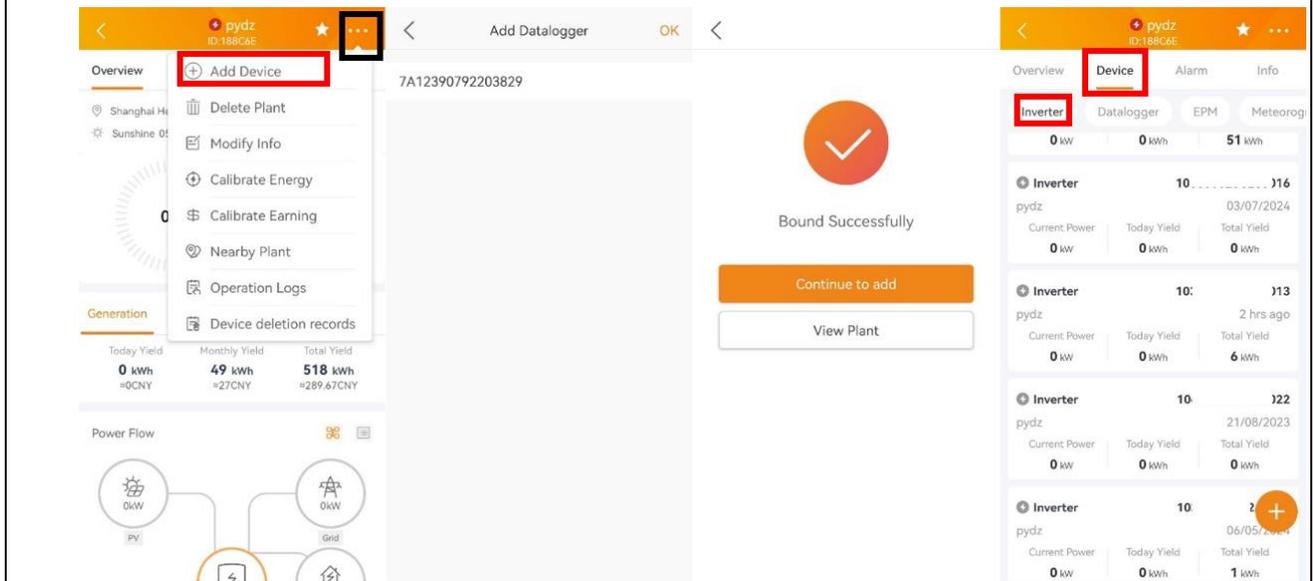
Set time → select PYLON\_HV → Complete Meter/CT Setting, Grid Code and work mode according to your actual needs and instructions of the inverter



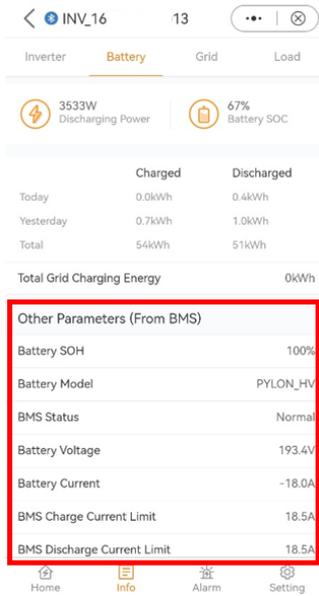
7) Click WIFI configuration and scan the QR code on the inverter datalogger. Complete the network allocation in sequence. The default network password of the data logger is 123456789.



8) Please add the data logger to the power plant  
Then you can find your inverter in the Plant → Device → Inverter interface and control the inverter



9) If the communication between the battery and the inverter is successfully established, the battery parameters such as SOC, voltage, charge and discharge current limit can be displayed on this page.



INV\_16 13

Inverter **Battery** Grid Load

3533W Discharging Power 67% Battery SOC

	Charged	Discharged
Today	0.0kWh	0.4kWh
Yesterday	0.7kWh	1.0kWh
Total	54kWh	51kWh

Total Grid Charging Energy 0kWh

**Other Parameters (From BMS)**

Battery SOH	100%
Battery Model	PYLON_HV
BMS Status	Normal
Battery Voltage	193.4V
Battery Current	-18.0A
BMS Charge Current Limit	18.5A
BMS Discharge Current Limit	18.5A

Home Info Alarm Setting

## Notes

1. For detailed commissioning of the system on inverter, please follow Solis User Manual.

2. **Wrong commissioning will cause BMS communication failure.** Pylontech Force H series Battery only works when the communication is correctly connected.

Communication Status	LED on BMS	Description	Solution
Normal		Battery LED: Status Blue solid Inverter: Battery parameter displayed	
Abnormal		Battery LED: Status Orange solid Inverter: No battery parameters displayed	<ol style="list-style-type: none"> <li>1. Check pin sequence (Figure 4: Pins setup of the communication cable)</li> <li>2. Check firmware version on Solarman</li> </ol>

### 3. Battery Wi-Fi setting

For network connection, please scan the QR code below to get Network Connecting Instructions Wi-Fi Portal Introduction or contact Pylontech service team <service@pylontech.com.cn> for further questions.



The SN of the Solarman logger is located on the battery control module, as shown in the figure.

*Figure 5: the location of logger's SN*



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