

SAJ Multiple Storage Inverters Parallel Solution

General introduction

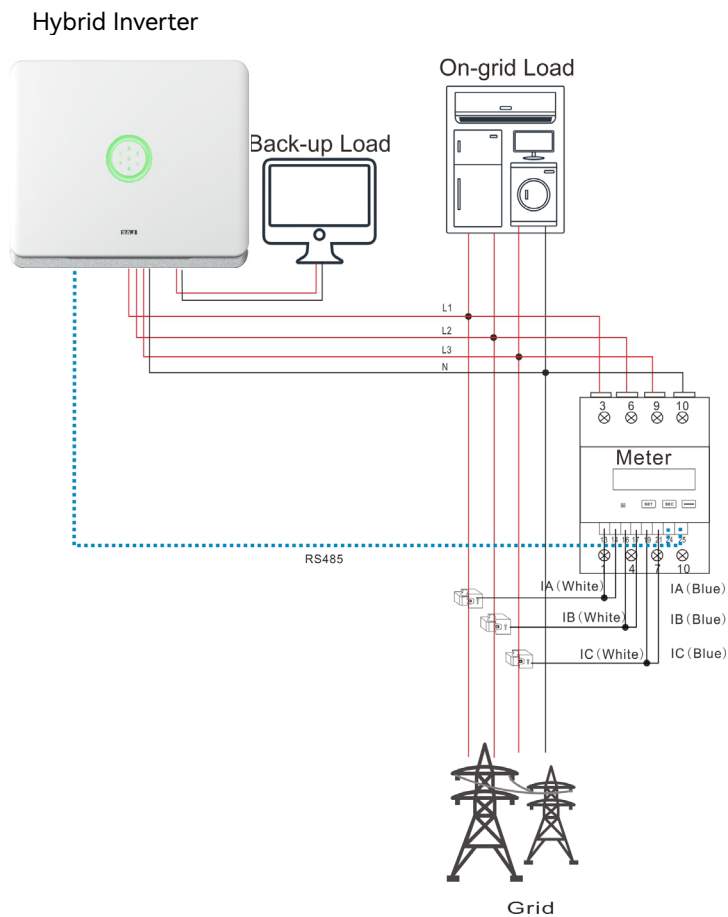
SAJ storage inverter parallel solution is for system capacity expansion from 5kW to 100kW. A maximum of ten H2 storage inverters can be connected parallelly.

Needed devices:

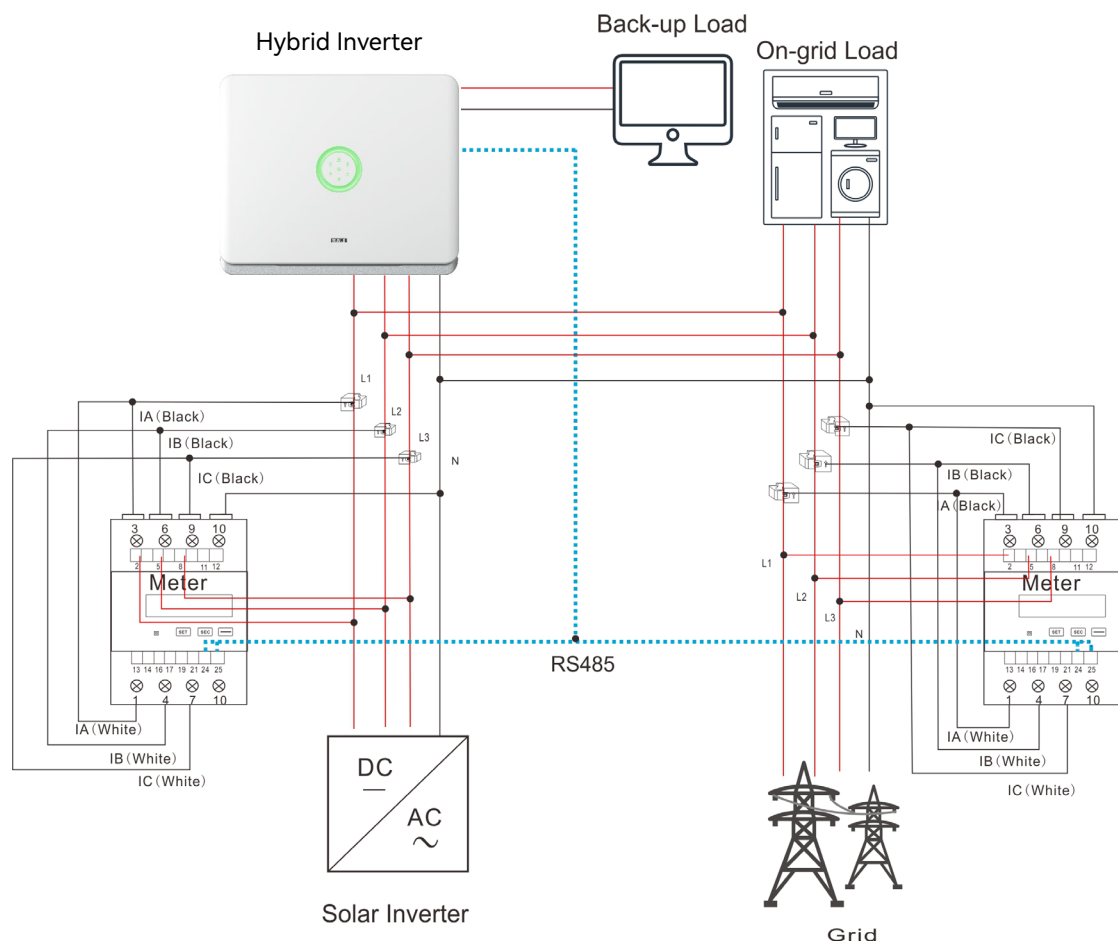
- H2 inverters (Applicable inverter model: SAJ H2-10K-T2 series)
- Smart meter
- CT (if applicable)
- PV on-grid inverter (if applicable)

System connections

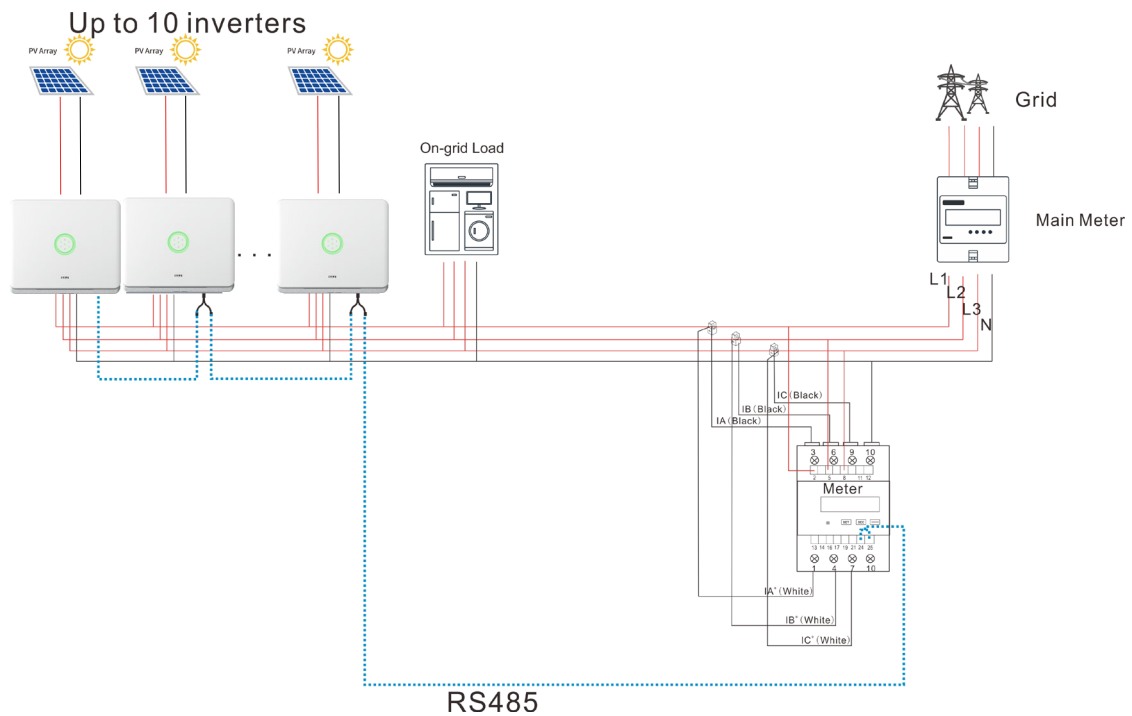
Single H2 (1*100A meter)



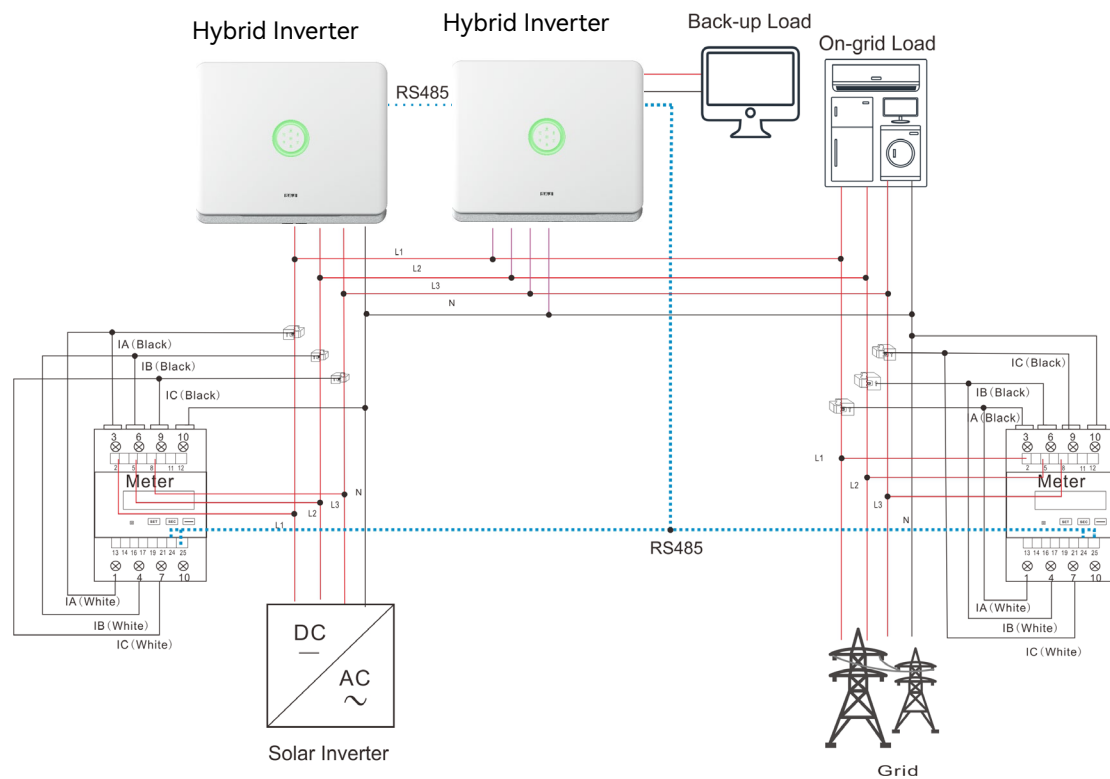
Single H2 with two meter (2*250A meters)



Multiple H2 (1*250A meter)



Multiple H2 with two meters (2*250A meters)



Multiple storage inverters parallel solution is applicable to the **grid side** of H2 inverters. Backup and battery side cannot be paralleled.

The maximum length of the communication cable between two consecutive inverters is 15m.

System commissioning

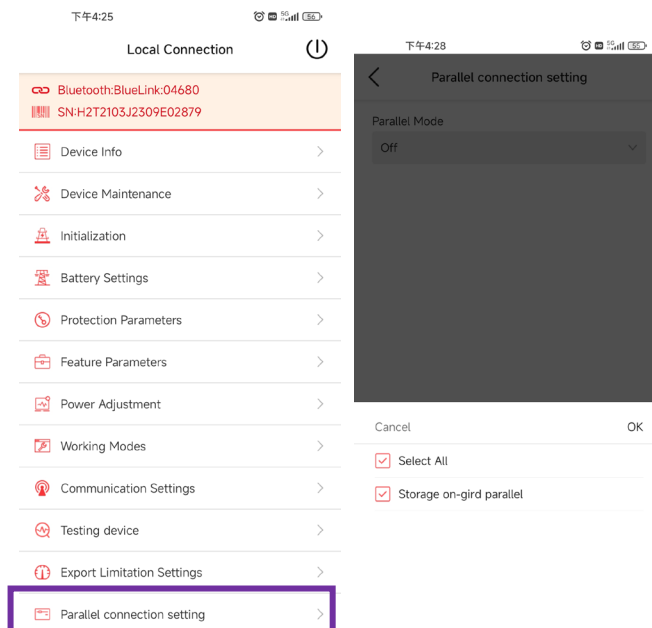
1. Connect the parallel system and then power on the inverters.
2. Commission each inverter on the eSAJ APP: Select a proper grid country, grid code, battery brand, working mode (self-consumption mode only), export limitation setting etc.

Note: It is recommended to set the export limitation setting to be the same for all inverters.

3. Set parallel connection:

- Select **Parallel connection setting**. Then, select the parallel mode.

Configuration	Corresponding parallel mode
Single H2	Storage on-grid parallel
Single H2 with second meter	PV on-grid parallel
Multiple H2	Storage on-grid parallel
Multiple H2 with second meter	Storage on-grid parallel+ PV on-grid parallel



- Select the total number of devices based on the actual situation.
- Set the parallel ID to a number (starting from 0) that is unique for each inverter (a valid ID is 0 through 9).

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< Parallel connection setting

Parallel Mode
Storage on-grid parallel

Total number of parallel devices
1

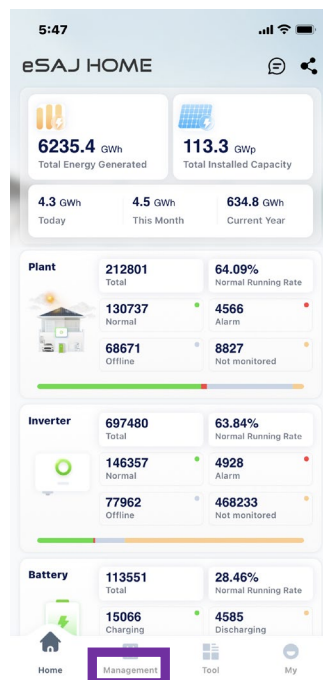
Parallel ID ⓘ
0

Multi-machine connection method
485 Multi-machine connection method

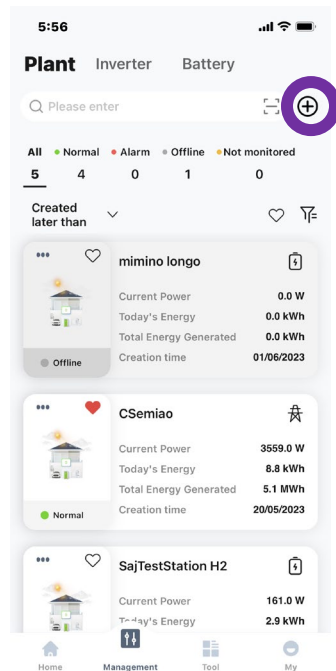
SAVE

4. Create a plant.

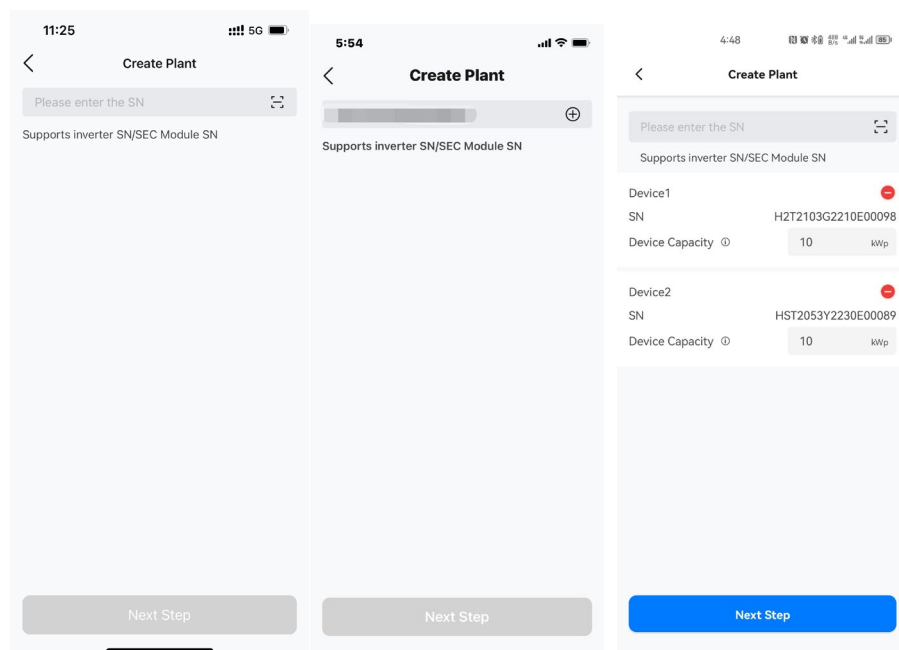
- Select the **Management** tab on the bottom.



- Click on the ⊕ icon on the top right corner. Select **Create Plant for Me**.



- Enter the serial number (SN) of the inverter. Alternatively, scan the SN barcode on the power label on the inverter. Then, click **+** to add the inverter.



- To add more inverters, perform the similar operations in the previous step. Then, click **Next Step**.
- Configure the plant settings. Then, click **Create Plant** to enable the parallel function.

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Please enter information

* Plant Name
Please enter the name

* Plant Capacity ①
20.0 kWp

* Plant Type
Energy Storage Plant

* Country/Region
Please select

* Plant Time Zone
Please select

* Detailed Address
Please enter the detailed address

Parallel Function ☒

Previous Create Plant

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Plant Inverter Battery

Q Please enter

All Normal Alarm Offline Not monitored
5 4 0 1 0

Created later than

mimino longo
Current Power 0.0 W
Today's Energy 0.0 kWh
Total Energy Generated 0.0 kWh
Creation time 01/06/2023
Offline

CSemiao
Current Power 3559.0 W
Today's Energy 8.8 kWh
Total Energy Generated 5.1 MWh
Creation time 20/05/2023
Normal

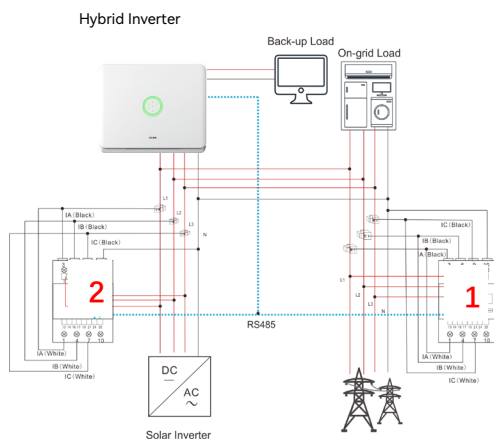
SajTestStation H2
Current Power 161.0 W
Today's Energy 2.9 kWh

Home Management Tool My

5. Set the meter address.

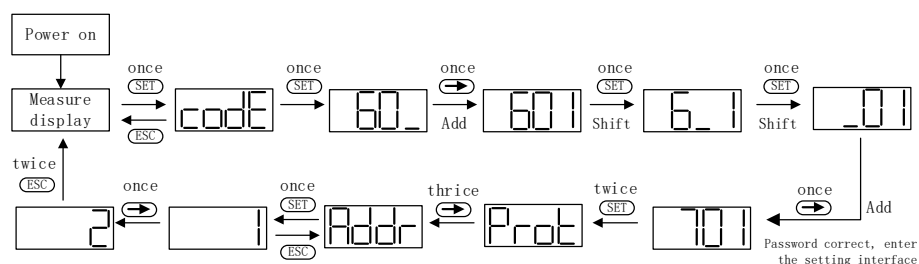
If two meters are connected to the system, set the address of the grid-side meter to 1, and set the address of inverter-side meter to 2 (see below figure).

Note: The default meter address is 1.



DTSU666		
	Button	Description
	SET	Confirmation or cursor shift (when input digits)
	ESC	Exit
	→	Add

The setting methods for three-phase meter is as follows.



① Power on the meter and enter the “Measure display” interface, then press the **SET**

button twice for entering password 701.

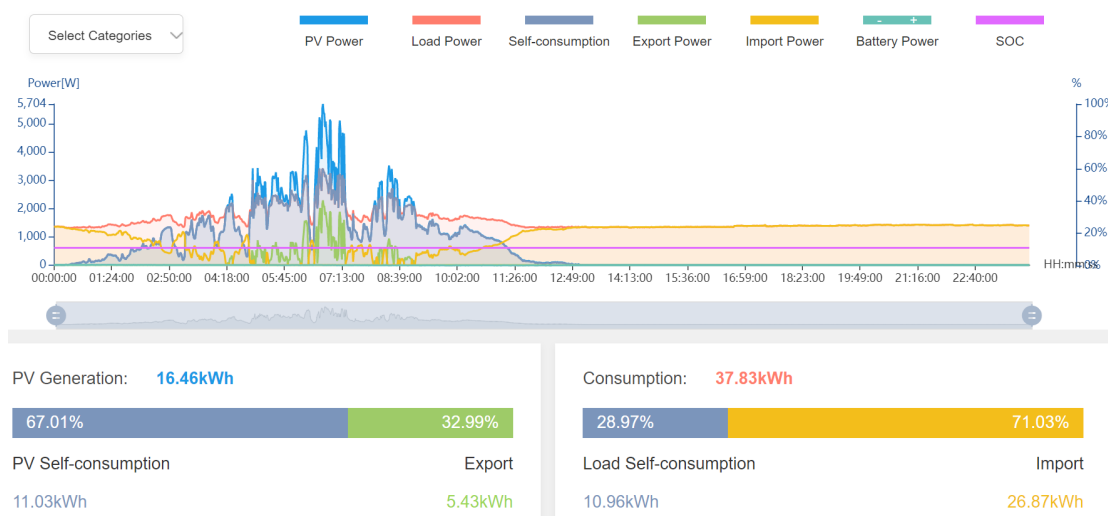
- ② Press the  button once to adjust the value of the first digit. One increment per button pressing.
- ③ Pressing  once to shift to the second digit, and then adjust the third digit in the same way. Set the default password to 701.
- ④ When the password entered correctly, press  twice to enter the port interface and press  for three times to enter address page. Then, press  button once to start to set meter address.
- ⑤ Press  to adjust the value of address. One increment per button pressing.
- ⑥ After the address is set successfully, press the  button twice to exit to the Measure display interface to get the meter work.

System working logic

Electricity generated by solar panels will be provided to on-grid loads first, and the surplus electricity will be used to charge the batteries. If solar is insufficient, the loads would take energy from solar and batteries first, and draw energy from grid if necessary.

System monitoring

Real time data for parallel system can be accessible from SAJ monitoring platform. Total system generation and consumption, battery and export data are available for reviewing.





Individual inverter real time data can be accessible as well.

Home Inverter Alarm								
Status ▾	Inverter Type	Model	SN	E-Daily	Current Power	E-Total ⇅	Details	
●	Storage	H2-10K-T2	H2T2103G2202E00166	N/A	N/A	1,686.79	Battery Info	Realtime
							Alarm	
●	Storage	H2-10K-T2	H2T2103G2141E00098	N/A	N/A	0	Battery Info	Realtime
							Alarm	