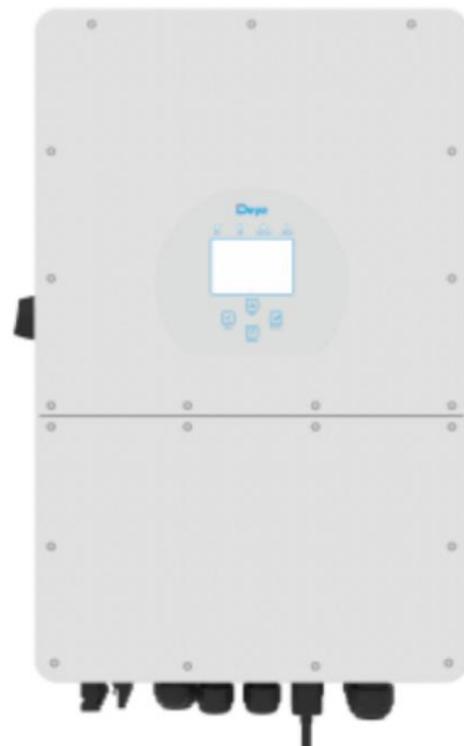
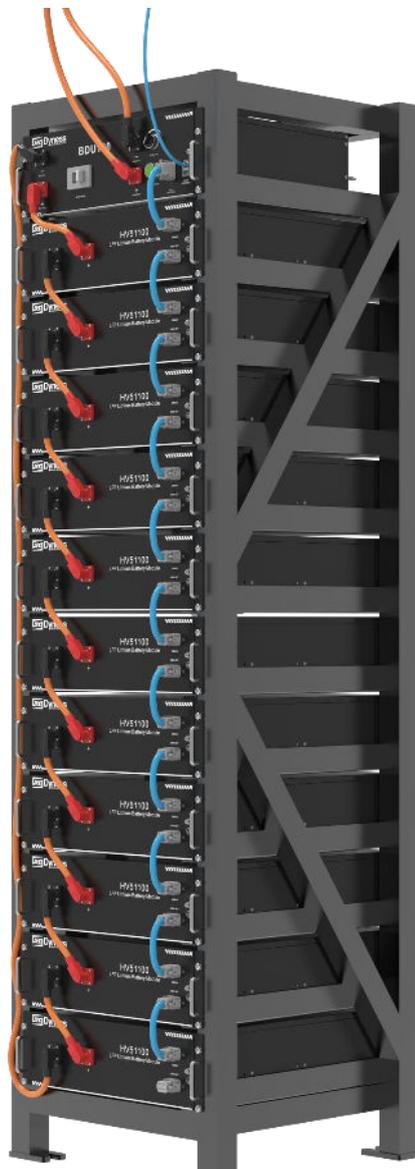


DYNESS HV4 ,HUB and DEYE SUN-50K-SG01HP3

Connection Guideline



Note

This is an instruction for connection and commissioning between HV51100 battery and Deye SUN-50K-SG01HP3-EU-BM4.

For details of the connection and commissioning, please go to user manual of the battery and the Deye SUN-50K-SG01HP3-EU-BM4 if you cannot find it in this instruction.

Applicable Product type

- HV51100 Battery Module Type(HV51100 battery, hereinafter referred to as HV4):
HV4-20 ESS unit/HV4-25 ESS unit/HV4-30 ESS unit/HV4-35 ESS unit/HV4-40 ESS unit/HV4-46 ESS unit/HV4-51 ESS unit/HV4-56 ESS unit
- Deye Inverter Type:
SUN-25K-SG01HP3-EU-BM2/ SUN-30K-SG01HP3-EU-BM3/ SUN-40K-SG01HP3-EU-BM4/SUN-50K-SG01HP3-EU-BM4

Installation Steps

1 Install HV4 as per user manual. Take HV4-56 as an example.



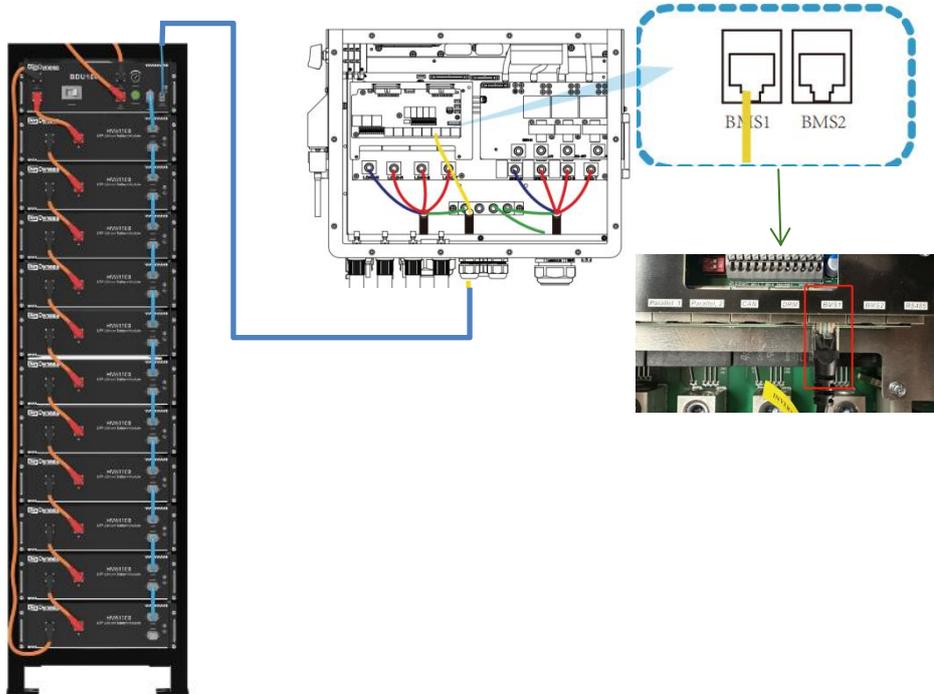
2 Refer to user manual to connect energy meter, grid, loads, etc. to SUN-50K-SG01HP3.



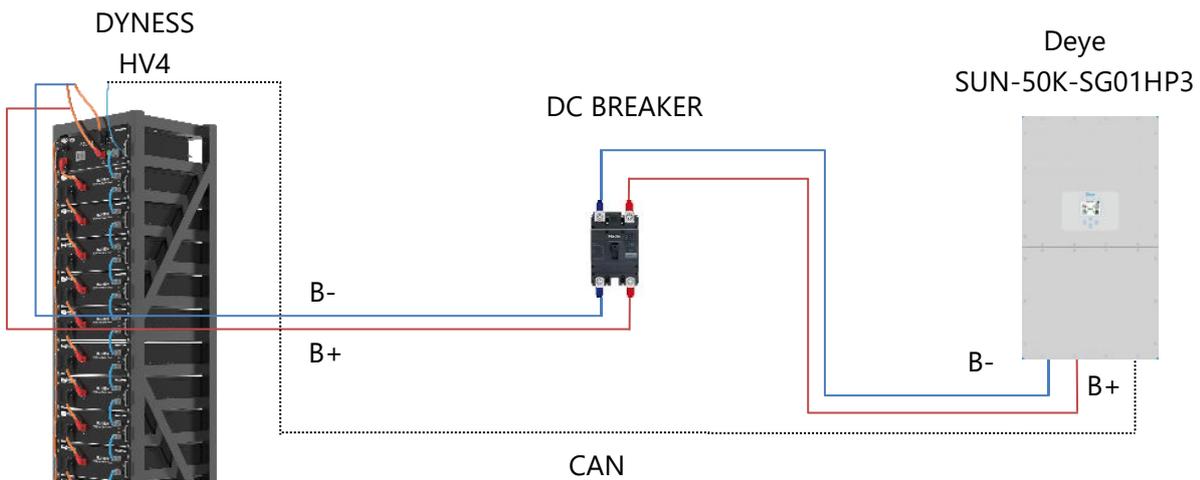
3 Connect the battery power cables to inverter. Plug the socket and plug of the battery's DC power cables onto the BAT1+ and BAT1-



4 Connect the battery communication cable to BMS1 of the inverter

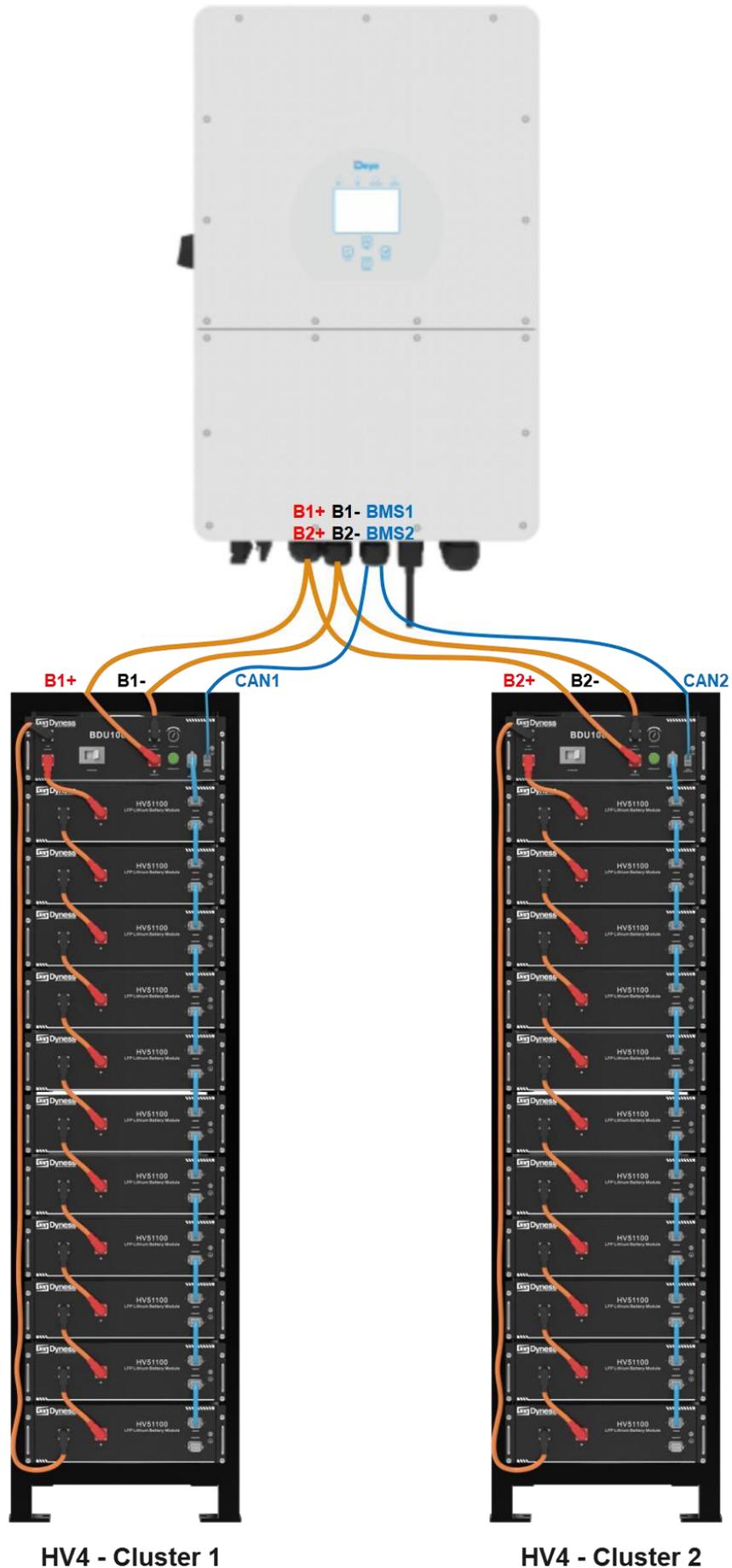


It is recommended to install a circuit breaker between HV4 and Deye

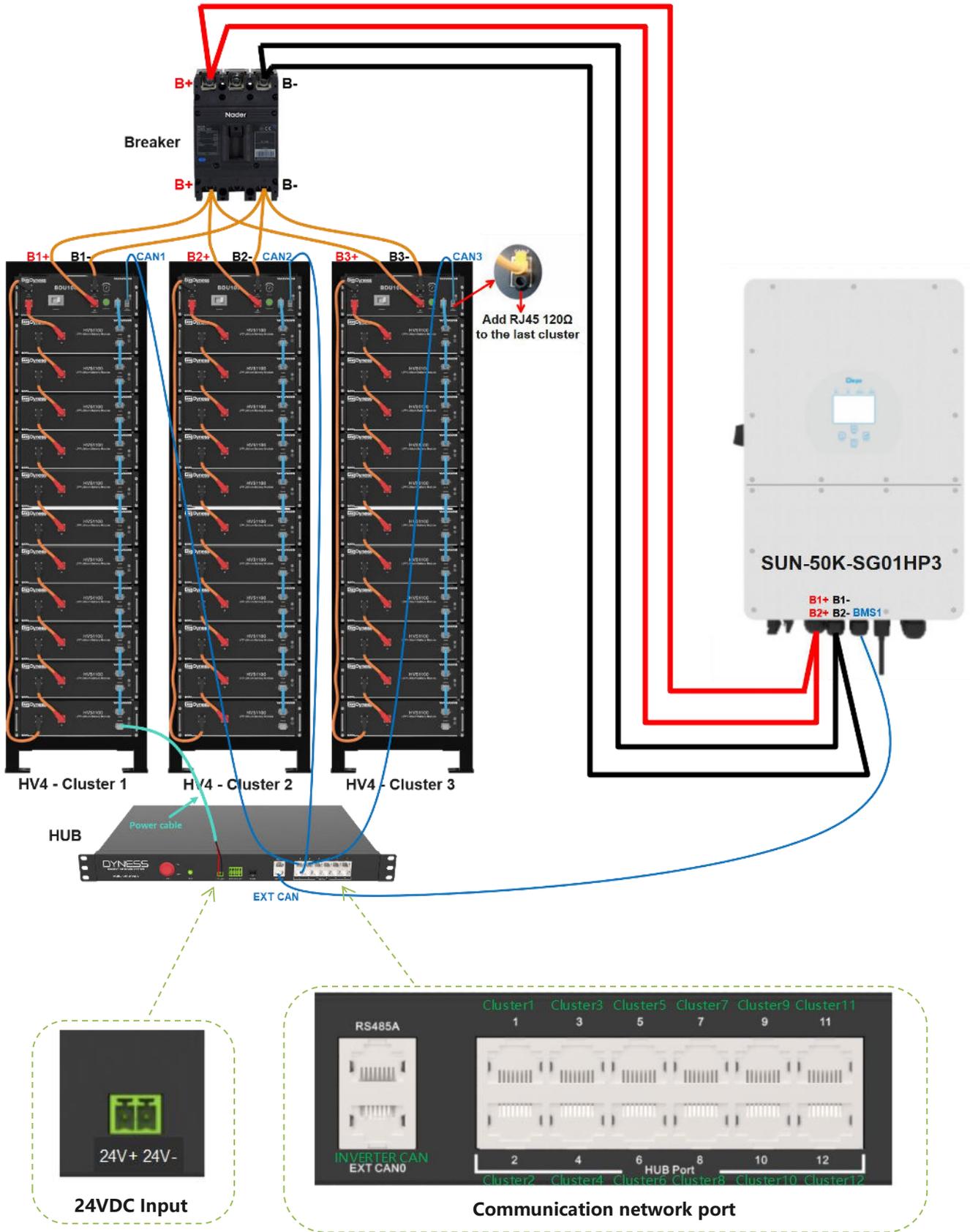


HV4 and Deye connection diagram

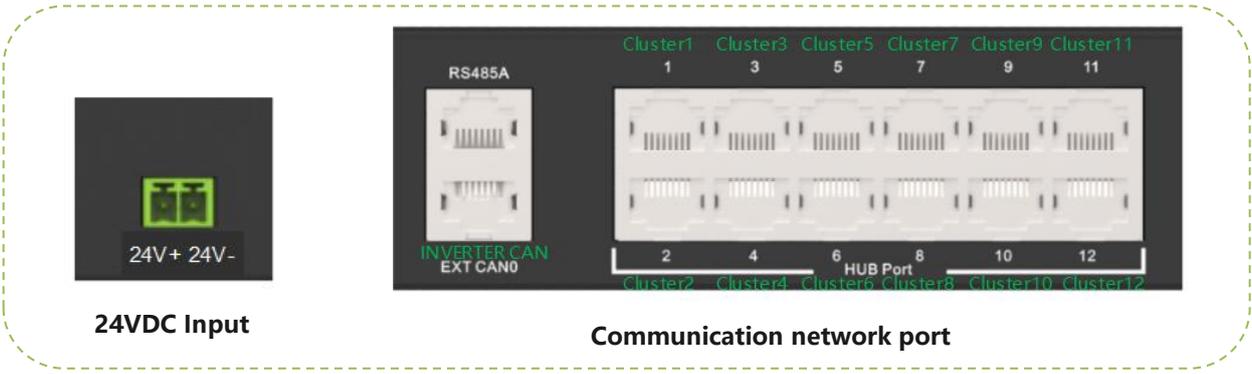
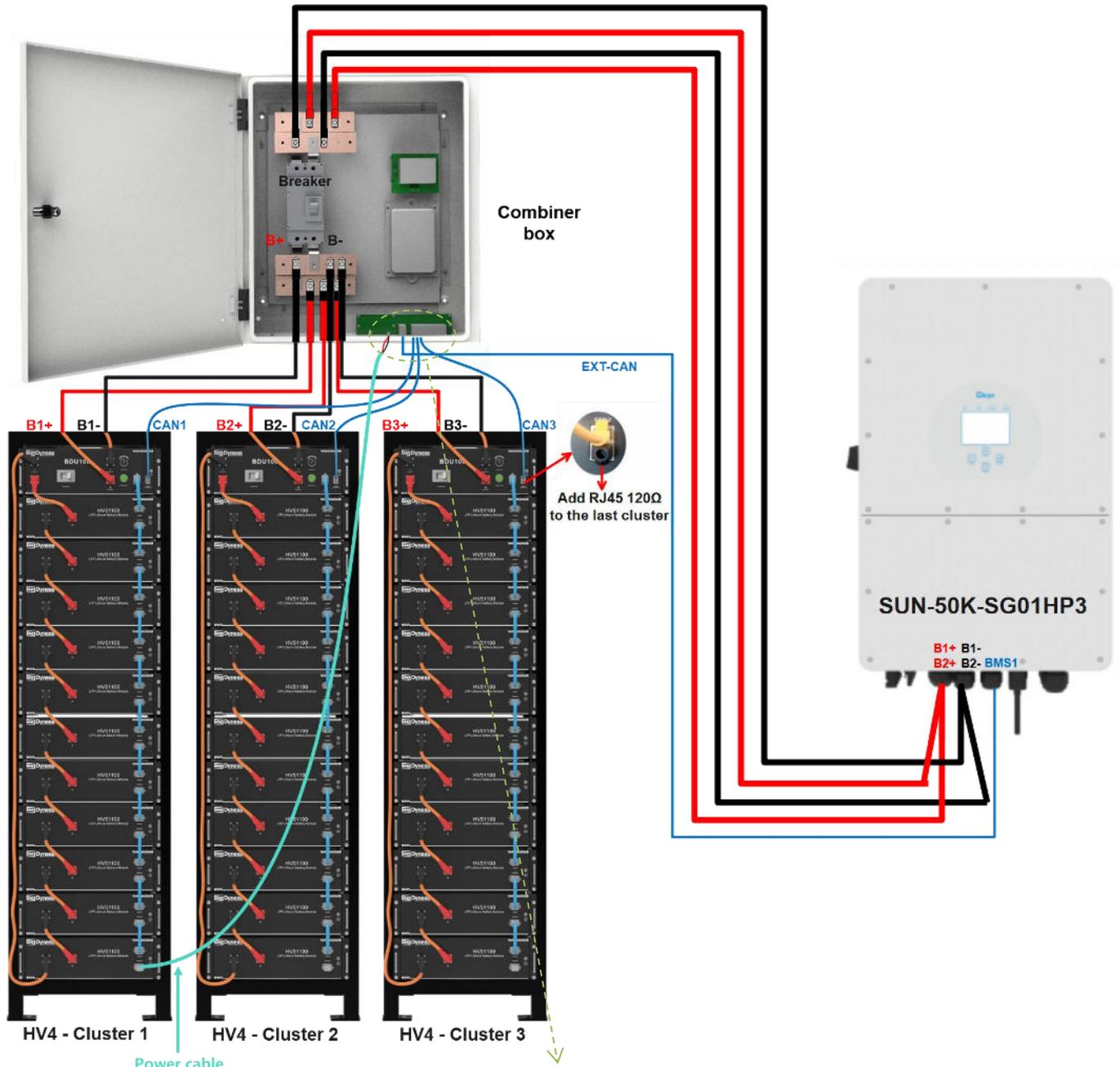
5 Connection diagram for using 2 clusters of HV4 batteries with DEYE SUN-50K-SG01HP3



Connection diagram of 3 clusters of HV4 batteries using HUB with DEYE SUN-50K-SG01HP3

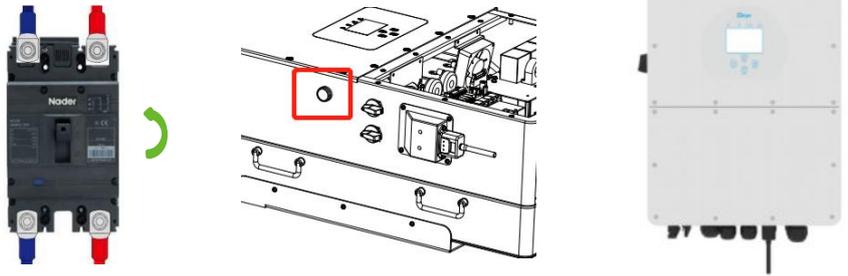


Connection diagram of 3 clusters of HV4 batteries using combiner box with DEYE SUN-50K-SG01HP3



6 Inverter and battery startup

Inverter startup: Turn on the mains circuit breaker and press the "ON/OFF" button on the left side of Deye. Turn on the DC switch to "1" position.

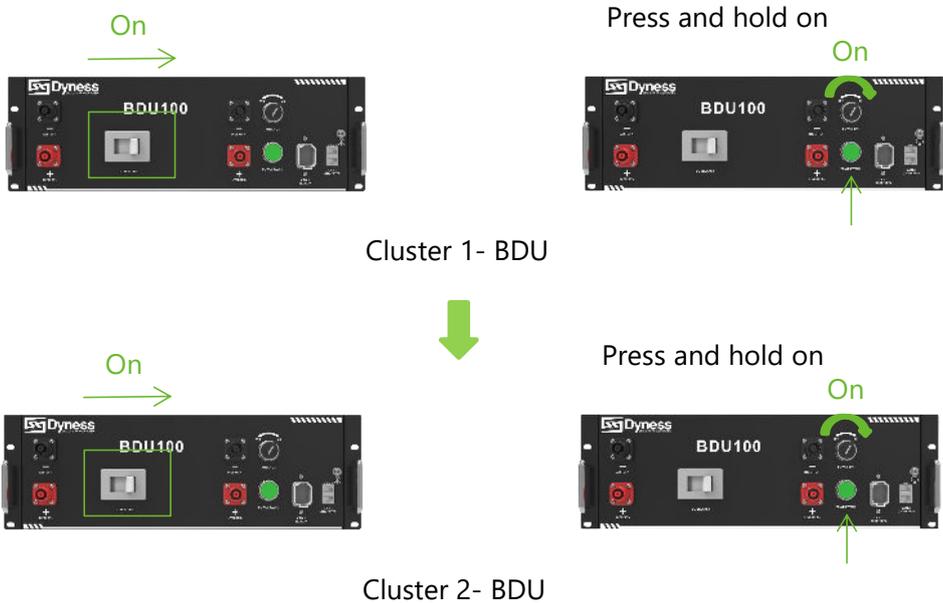


Battery startup:

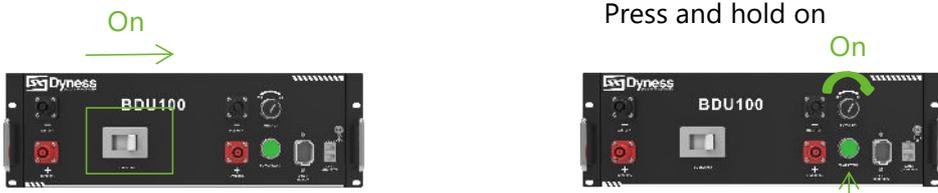
1 cluster HV4 usage: Turn on the circuit breaker on HV4 BDU100, turn on the power switch, and press hold the 'wake up' button for 10 seconds.



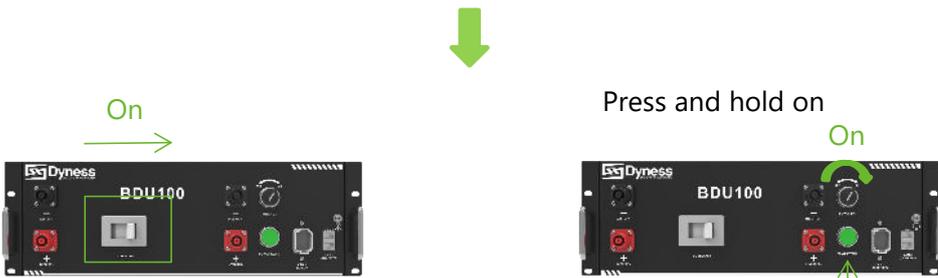
2 clusters HV4 usage: Turn on the circuit breaker on HV4 BDU100, turn on the power switch, and press hold the 'wake up' button for 10 seconds. Next, turn on the second cluster of batteries in order.



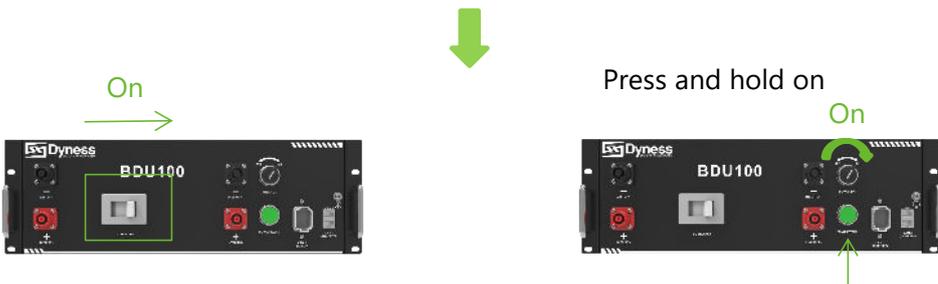
3 clusters HV4 and HUB usage: Turn on the circuit breaker on HV4 BDU100, turn on the power switch, and press hold the 'wake up' button for 10 seconds. Next, turn on the second and third battery clusters in order.



Cluster 1- BDU



Cluster 2- BDU



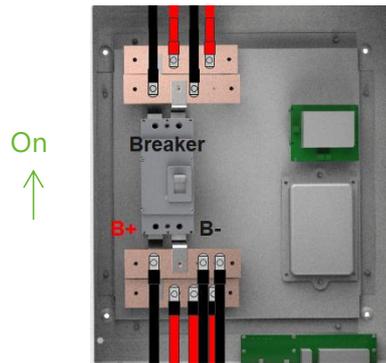
Cluster 3- BDU

Turn on the red switch of HUB-12P-HV to the "ON" position, the LED will light up.



HUB-12P-HV

3 clusters HV4 and combiner box usage: Turn on the breaker of the combiner box .



Turn on the circuit breaker on HV4 BDU100, turn on the power switch, and press hold the 'wake up' button for 10 seconds. Next, turn on the second and third battery clusters in order.



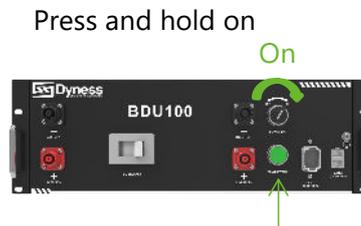
Cluster 1- BDU



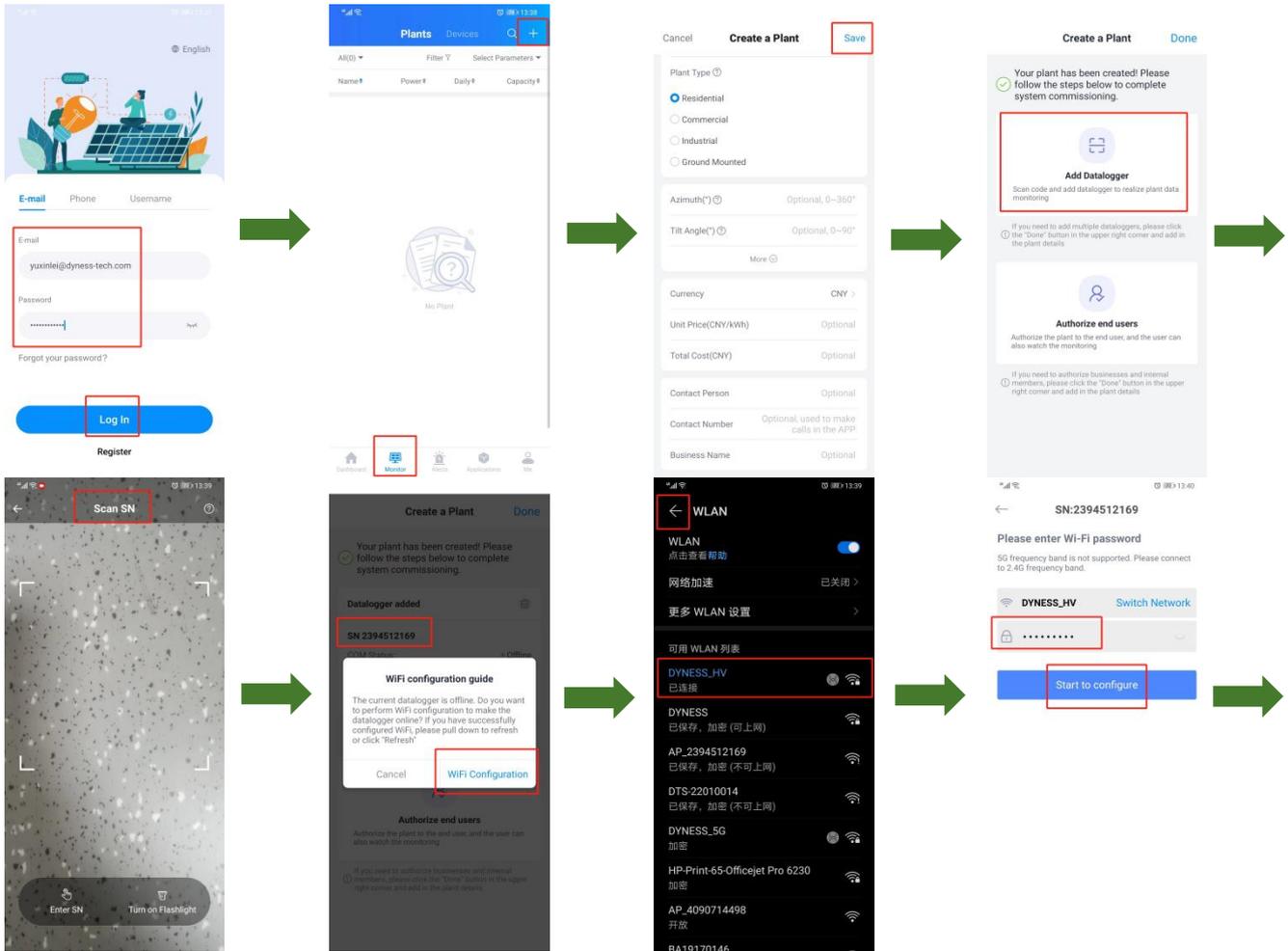
Cluster 2- BDU

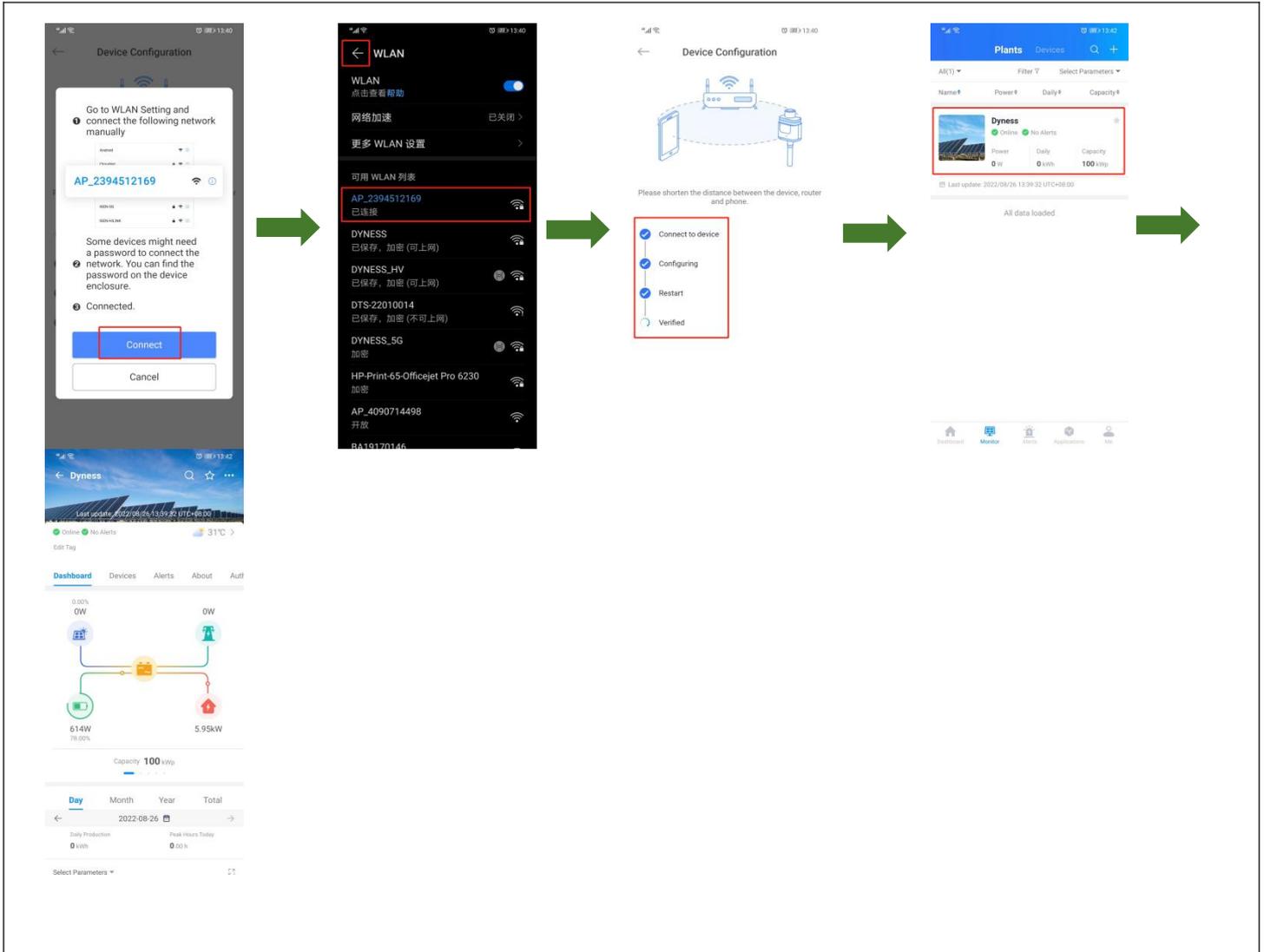


Cluster 3- BDU

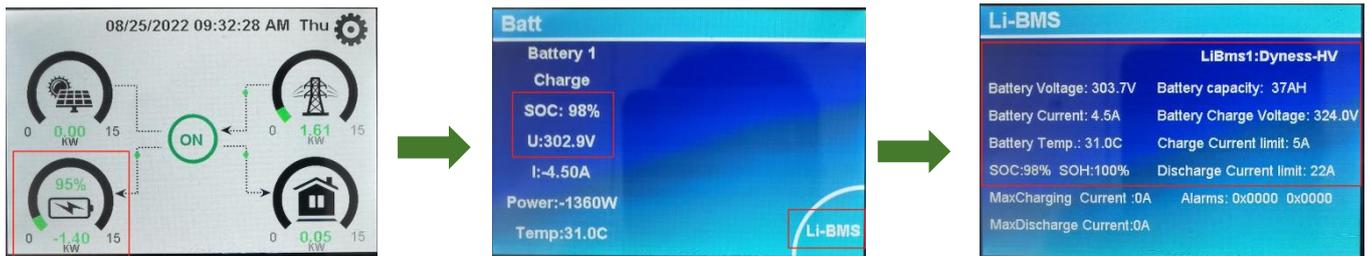


6 After the inverter is powered on, log in to the app "SOLARMEN" to configure the inverter. The detailed operation steps are as follows:

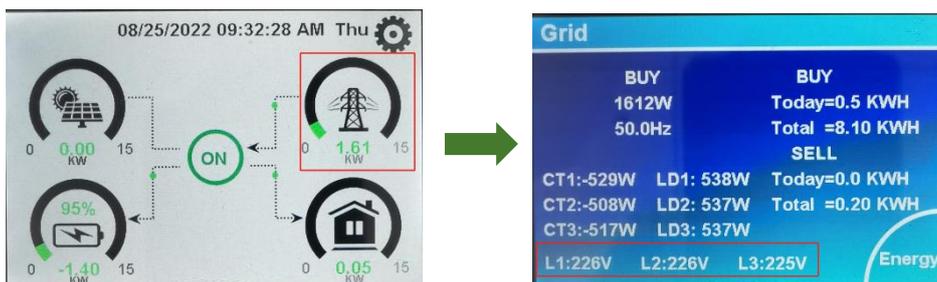




7 After the inverter network configuration is completed, the battery information can be viewed on the LCD touch screen. The detailed operation steps are as follows:



8 After the communication between the battery and the inverter is normal, turn on the mains air switch and check the grid information. The detailed operation steps are as follows:



- 9 In the inverter setting interface, set the parameters in "Battery Setting" and "System Work Mode" respectively, and execute charging and discharging commands. The detailed operation steps are as follows:

Charging settings:

The charging settings sequence consists of four screenshots:

- Screenshot 1: Battery Setting**
 - Batt Mode: Lithium, Use Batt V, NO Batt
 - Batt Capacity: 200Ah
 - Max A Charge: 30A
 - Max A Discharge: 20A
 - Buttons: Activate Battery1, Parallel bat1&bat2, Activate Battery2
- Screenshot 2: Battery Setting**
 - Start: 30%
 - A: 20A
 - Gen Charge: Gen Charge, Grid Charge
 - Gen Signal: Gen Signal, Grid Signal
 - Gen Max Run Time: 24.0 hours
 - Gen Down Time: 0.0 hours
- Screenshot 3: Battery Setting**
 - Lithium Mode: 00 | 00/02
 - Shutdown: 10%
 - Low Batt: 15%
 - Restart: 50%
- Screenshot 4: System Work Mode**
 - Selling First: Selling First, 55000W Max Solar Power
 - Zero Export To Load: Zero Export To Load, Solar Sell
 - Zero Export To CT: Zero Export To CT, Solar Sell
 - Max Sell Power: 50000, Zero-export Power: 150
 - Energy pattern: Batt First, Load First
 - Grid Peak Shaving: Grid Peak Shaving, 50000W Power

Discharge settings:

The discharge settings sequence consists of five screenshots:

- Screenshot 1: Battery Setting**
 - Batt Mode: Lithium, Use Batt V, NO Batt
 - Batt Capacity: 200Ah
 - Max A Charge: 30A
 - Max A Discharge: 25A
 - Buttons: Activate Battery1, Parallel bat1&bat2, Activate Battery2
- Screenshot 2: Battery Setting**
 - Lithium Mode: 00 | 00/02
 - Shutdown: 10%
 - Low Batt: 10%
 - Restart: 50%
- Screenshot 3: Battery Setting**
 - Start: 30%
 - A: 20A
 - Gen Charge: Gen Charge, Grid Charge
 - Gen Signal: Gen Signal, Grid Signal
 - Gen Max Run Time: 24.0 hours
 - Gen Down Time: 0.0 hours
- Screenshot 4: System Work Mode**
 - Selling First: Selling First, 15000W Max Solar Power
 - Zero Export To Load: Zero Export To Load, Solar Sell
 - Zero Export To CT: Zero Export To CT, Solar Sell
 - Max Sell Power: 15000, Zero-export Power: 500
 - Energy pattern: Batt First, Load First
 - Grid Peak Shaving: Grid Peak Shaving, 15000W Power
- Screenshot 5: System Work Mode**

Grid Charge	Gen	Time		Power	Batt
		Start	End		
<input type="checkbox"/>	<input type="checkbox"/>	01:00	05:00	15000	80%
<input type="checkbox"/>	<input type="checkbox"/>	05:00	09:00	15000	10%
<input type="checkbox"/>	<input type="checkbox"/>	09:00	13:00	15000	10%
<input type="checkbox"/>	<input type="checkbox"/>	13:00	18:00	15000	10%
<input type="checkbox"/>	<input type="checkbox"/>	18:00	21:00	15000	10%
<input type="checkbox"/>	<input type="checkbox"/>	21:00	01:00	15000	80%

10 Off-Grid Mode Settings:

When the inverter is disconnected from the grid, it automatically enters the off-grid mode, and it can discharge when connected to the load.



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Official Website



Digital version access

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www.dyness-tech.com