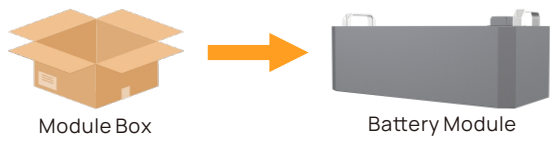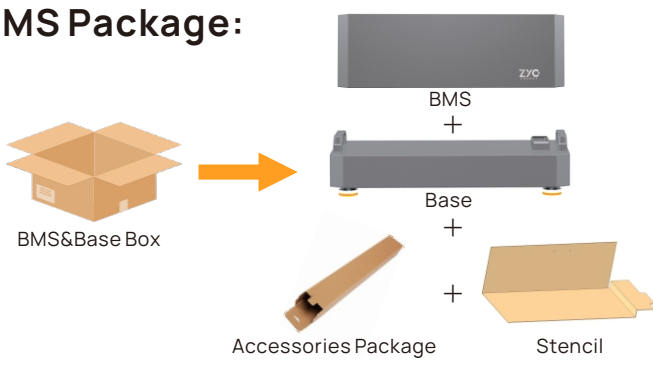## ⚠ Safety Precaution

- **Important**: Installers and users are obliged to familiarise themselves with this manual.
- **Danger:** Power Cables and plugs have high voltage from the battery, be careful when wiring.
- **Important:** Ensure that a fire extinguisher is in place prior to installation and use.
- **Warning:** Installation and operation must be carried out by qualified personnel and the system must be installed in restricted access areas.
- **Caution:** The battery module is with certain weight. Install with the help of tools if necessary.
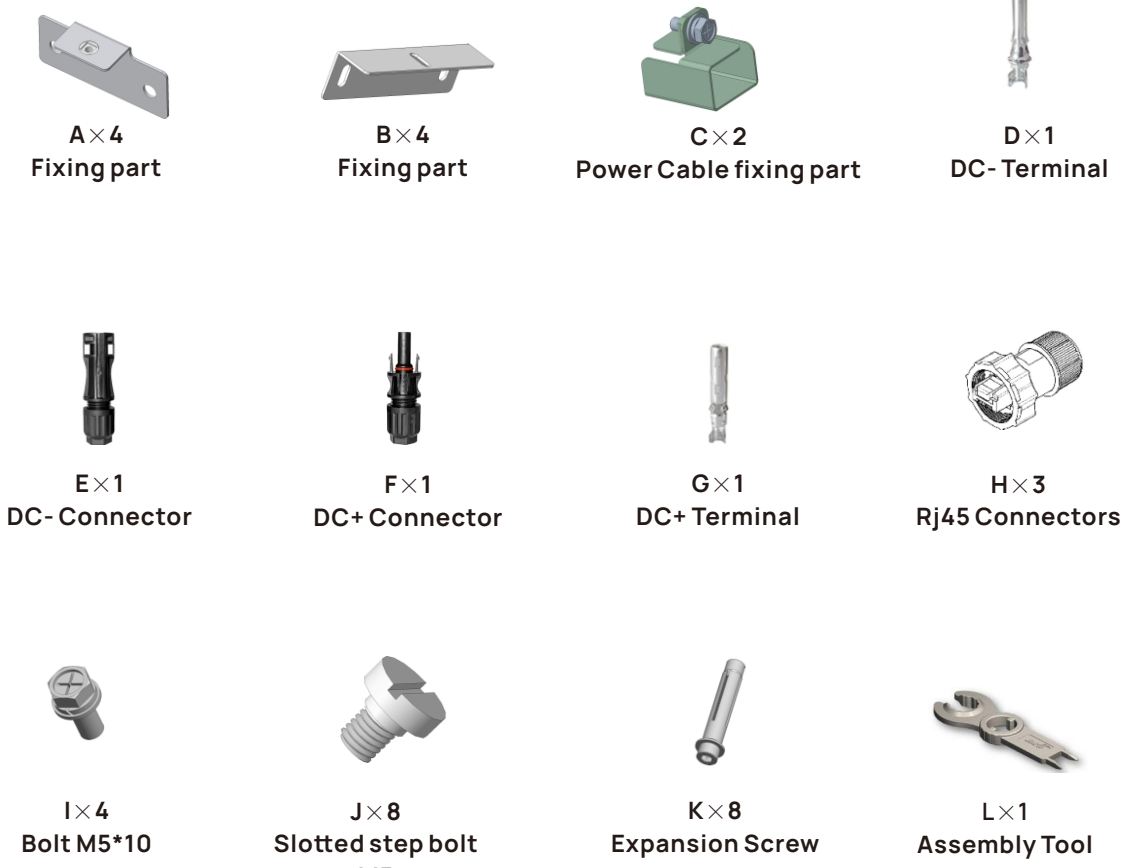
Contents in SIMPO HV Package

Battery Package:

Module Box → Battery Module

BMS Package:

BMS&Base Box → BMS + Base + Accessories Package + Stencil

Accessories Included:

A×4 Fixing part	B×4 Fixing part
C×2 Power Cable fixing part	D×1 DC- Terminal
E×1 DC- Connector	F×1 DC+ Connector
G×1 DC+ Terminal	H×3 Rj45 Connectors
I×4 Bolt M5*10	J×8 Slotted step bolt M5
K×8 Expansion Screw	L×1 Assembly Tool

Extra Accessories

Extra accessories are not included in the accessory box but necessary for system build up.

- DC Cables (≥10 AWG)
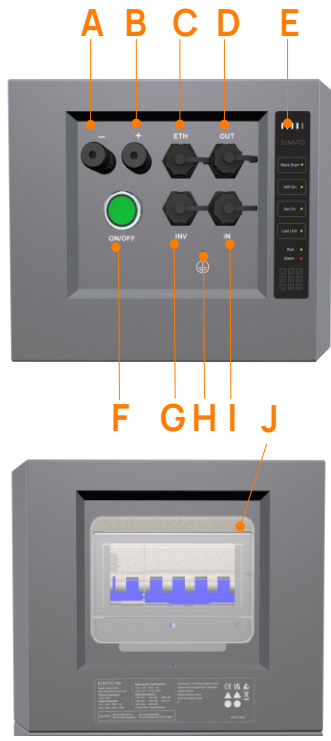- PE Cable with T terminal (SC10-5) (≥8AWG)
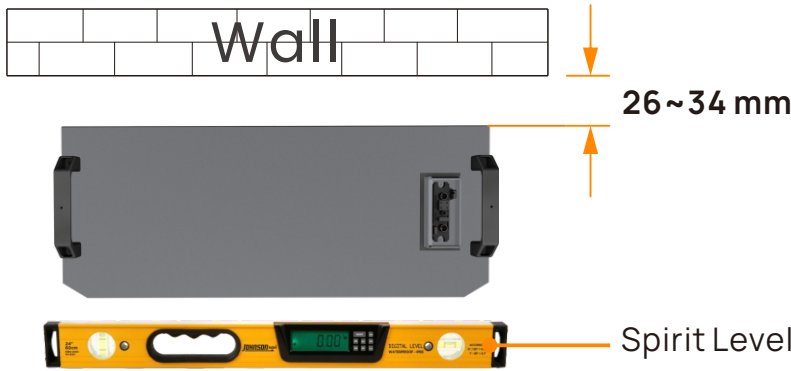- COM Cable (Cat.5e or Upper)

Tools

- Insulated gloves
- Screwdriver
- Safety Shoes
- Drill
- Multimeter
- Crimper
- Torque Wrench
- Wire Cutter
- Utility Knife
- Wrench
- Spirit Level

Different Functional Area on BMS

Letter	Lable	Function
A	-	DC-
B	+	DC+
C	ETH	Ethernet
D	OUT	Com Out
E	HMI	Human Machine Interface
F	ON/FF	ON/OFF
G	INV	Inverter COM
H	PE	PE Connection
I	IN	COM In
J	/	Circuit Breaker

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Place the base

Wall
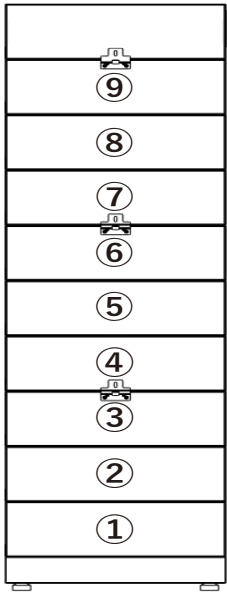
26~34 mm

Spirit Level

The base should be based on solid floor.
A spirit level is recommended for use when adjusting the feet.
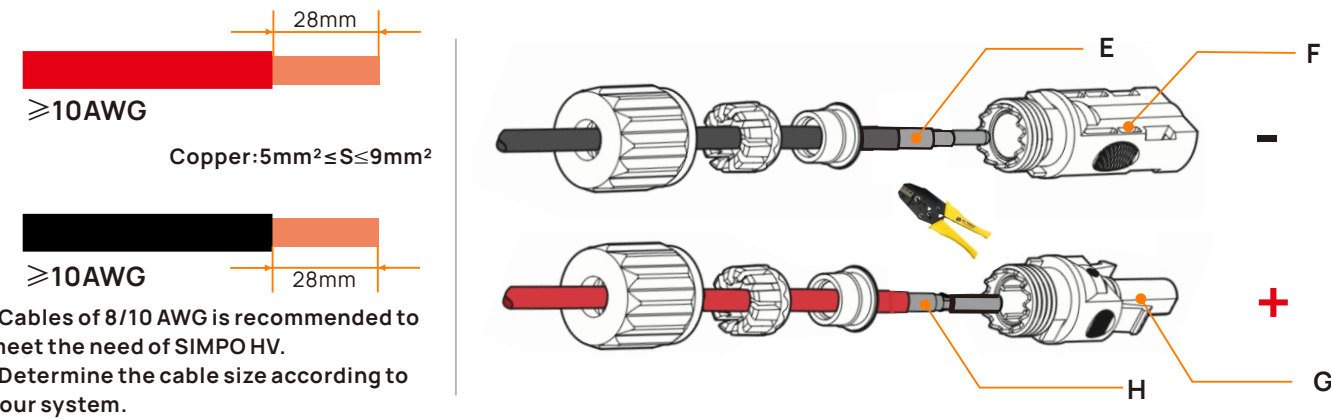
Quantity of Fixing Parts Needed

Number ①-⑨ represent module sequence only in this part.
*Fixing part for BMS is necessary for any amount of modules

⑨ ⑧ ⑦ ⑥ ⑤ ④ ③ ② ①

Module Qty per Tower	Qty of fixing parts recommended	Position of module fixing parts
2	NONE	NONE
3	1	③
4	1	④
5	2	③&⑤
6	2	③&⑥
7	2	③&⑦
8	3	③&⑥&⑧
9	3	③&⑥&⑨

Power Cables Crimping

28mm
≥10AWG
Copper:5mm²≤S≤9mm²

28mm
≥10AWG

*Cables of 8/10 AWG is recommended to meet the need of SIMPO HV.
*Determine the cable size according to your system.

E — F
—

H — G
+

Fix To The Wall

Stack up the modules and whenever reaches the quantity of fixing parts needed, follow the instructions below：

Step 1：Locate and drill holes for fixing parts on the wall.
Before stacking up the module that needs to be fixed to the wall, use the stencil to locate the drilling holes and finish the drilling.
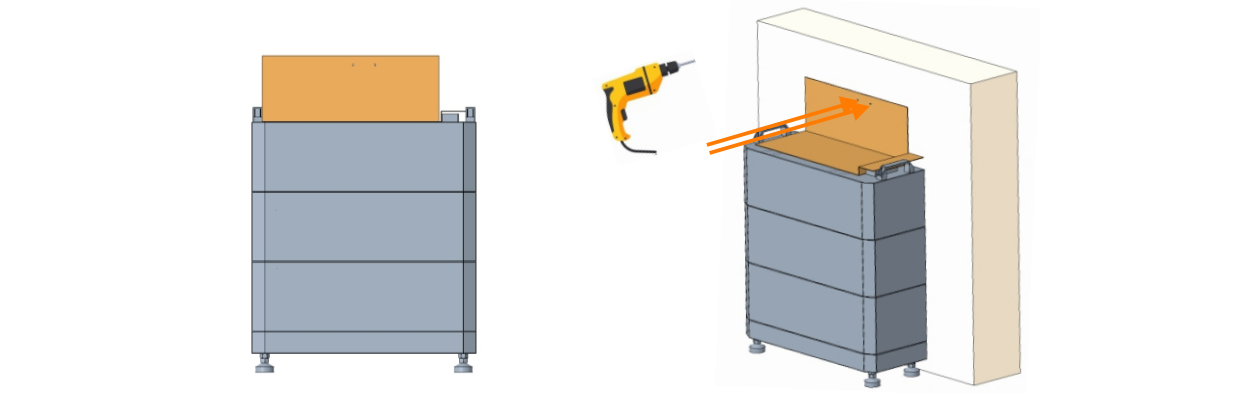
Step 2：Install fixing part A to the wall and fixing part B to the module.

A
K*2
Torque=5N*m

B
J*2
Torque=3.5N*m
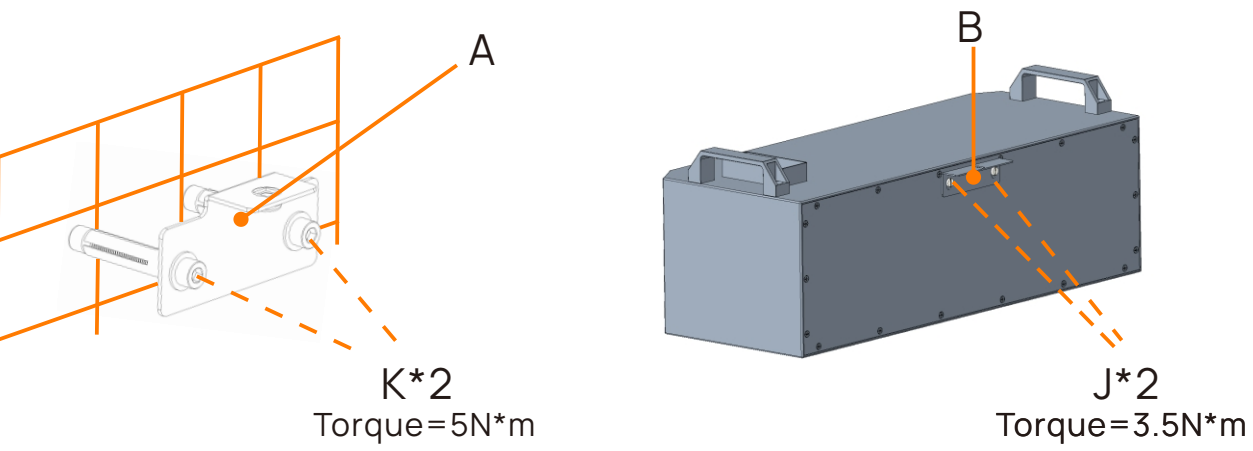
Step 3：Stack up the module and fix the screw between A and B

I
Torque=3.5N*m

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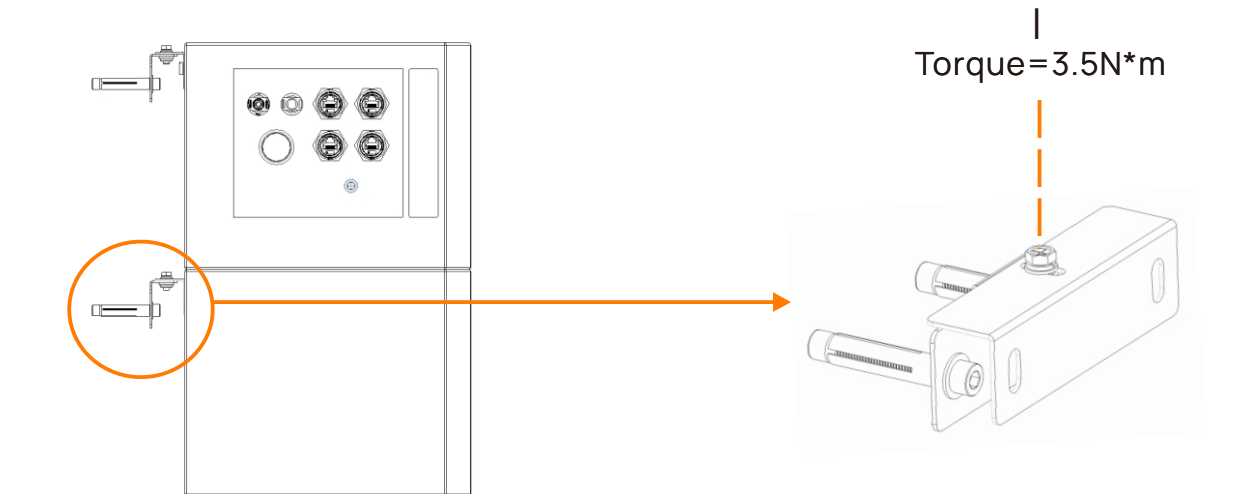
Cables Connection

System Overview:

PE Cables Connection:

Torque=5N · m
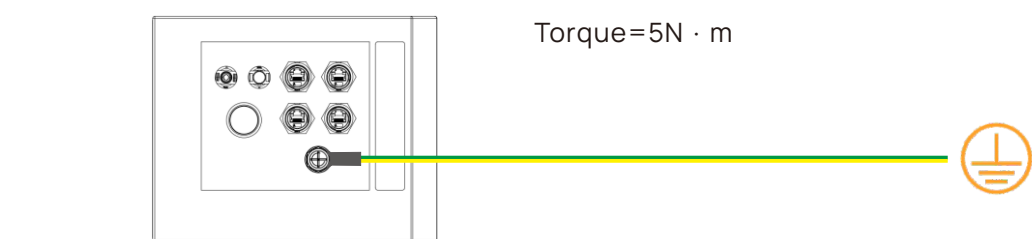
Power Cables Connection:

C×2   C×2   C×2
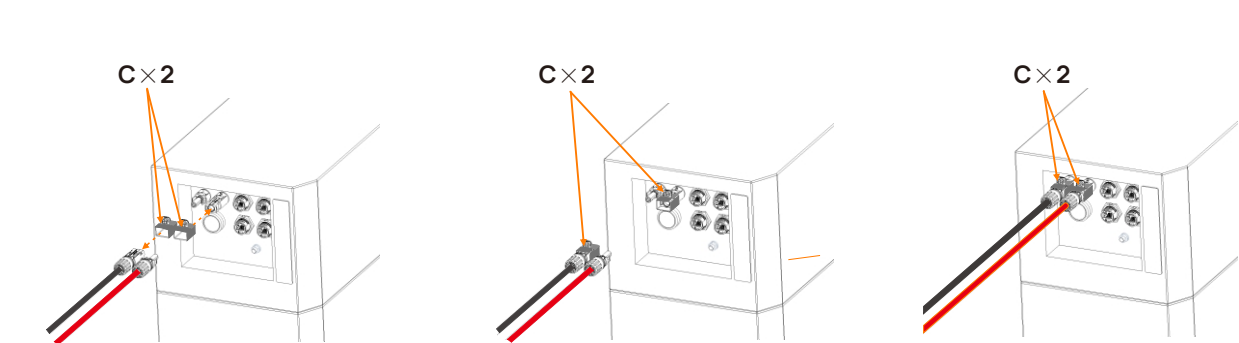
Communication Cables Connection:

1 2 3 4 5 6 7 8

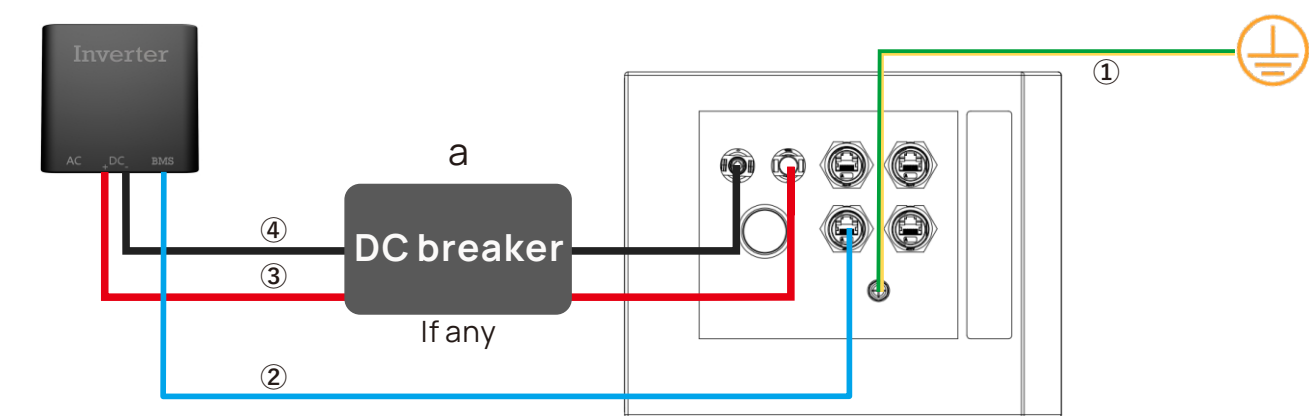### Definition of SIMPO HV "INV" Port

PIN NO.	1	2	3	4	5	6	7	8
Definition	11VGND	12V	11V	CAN_H	CAN_L	12VGND	RS485B	RS485A

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Parallel Multiple Towers

- Power Cable(+)
- Power Cable(-)
- Communication Cable
- PE Cable

Master   Slave 1   Slave N（N≤7）

HMI Status:

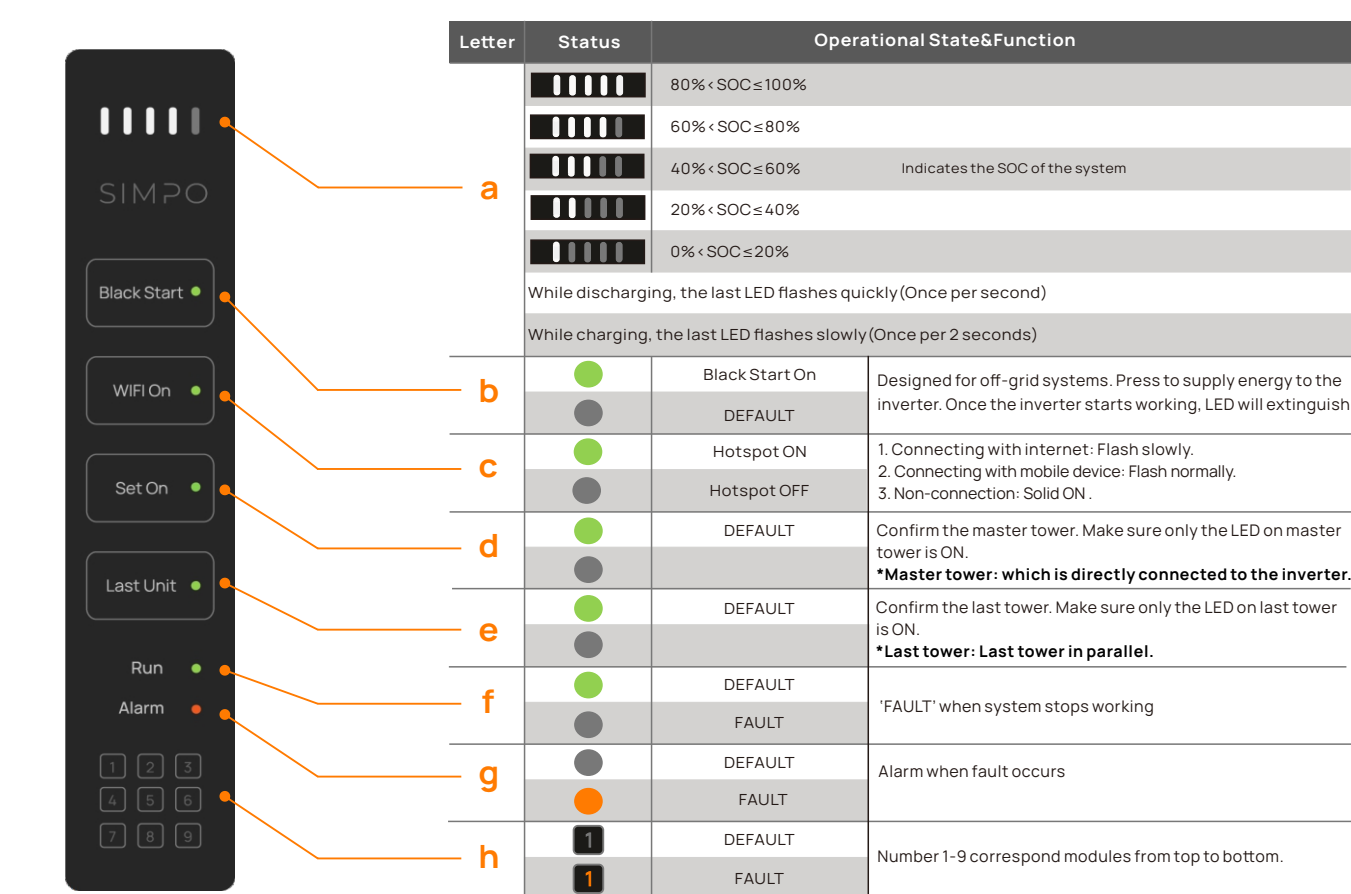| Black Start | | Black Start | | Black Start |
WIFI On		WIFI On		WIFI On
Set On		Set On		Set On
Last Unit		Last Unit		Last Unit
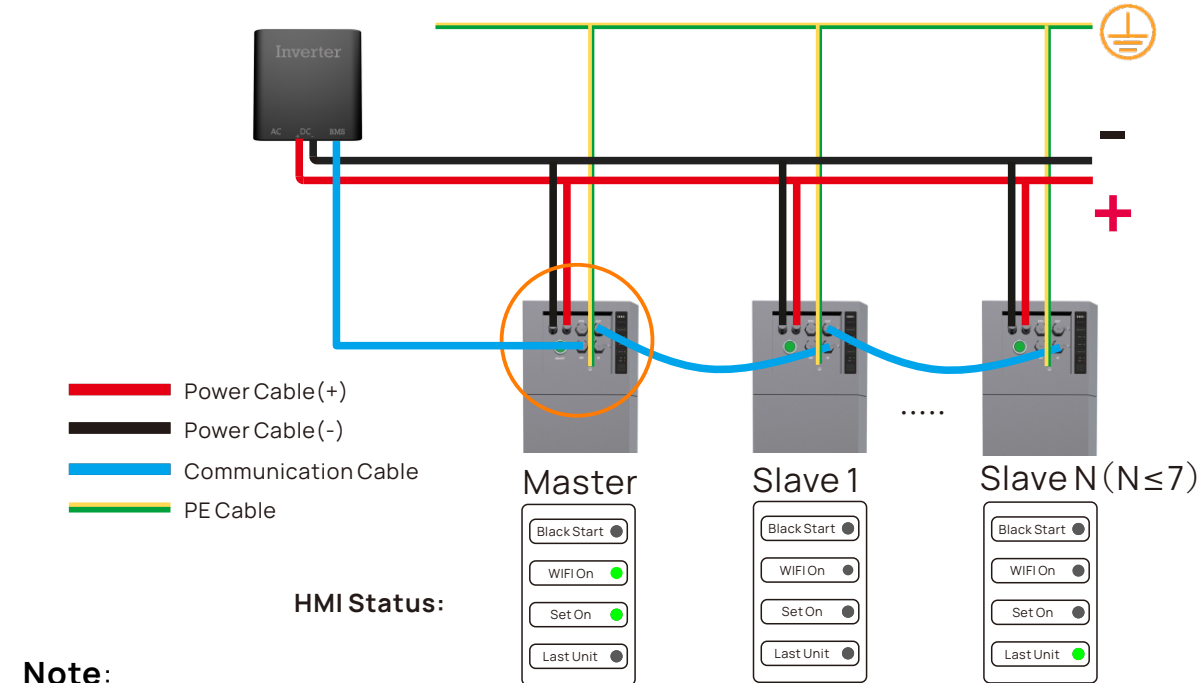
Note:
- When parallel multiple towers（≤8）only the 'Set On' LED on master is ON.
- Only the 'Last Unit' LED of last tower（N）is ON.
- Only the 'WIFI On' on master tower will be on for energy saving. This function on slave towers will be turned off by master tower automatically.
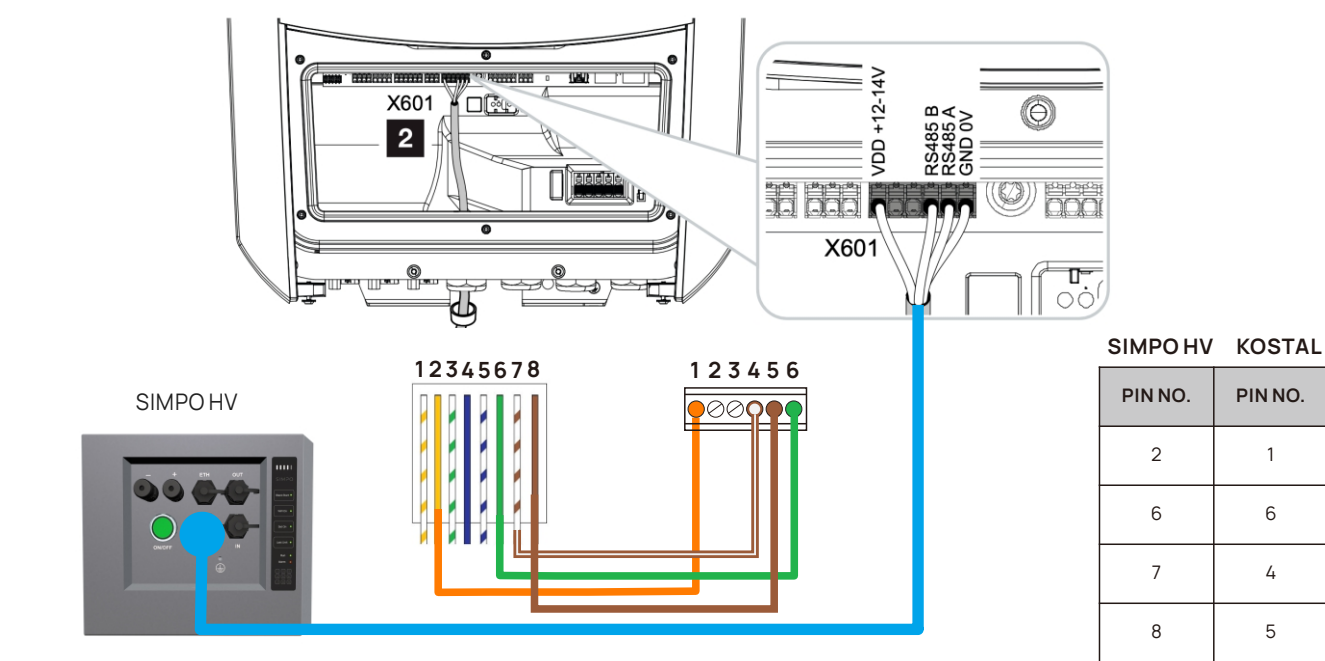
Human Machine Interface (HMI)

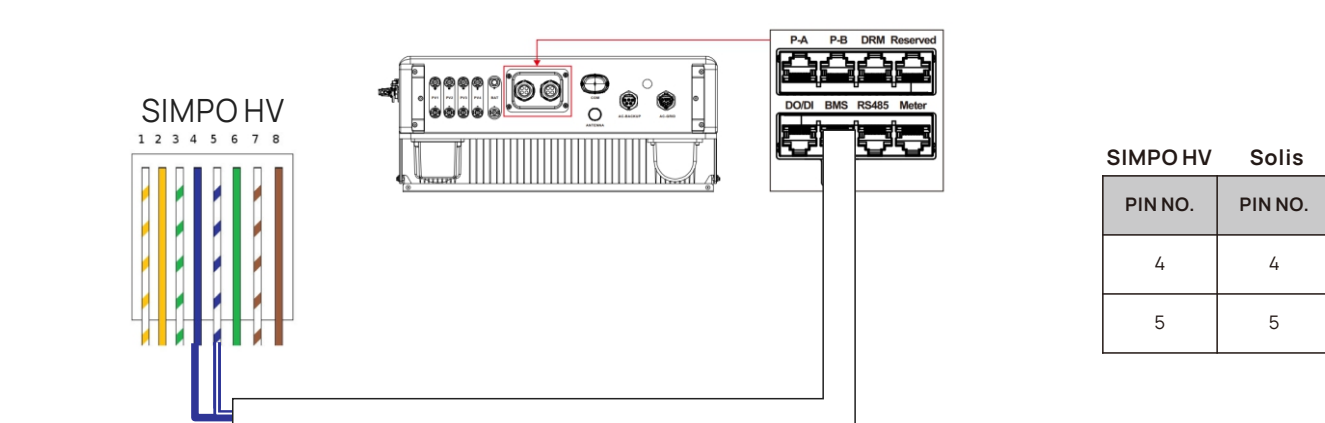| Letter	Status	Operational State&Function	
a	▮▮▮▮▮	80%‹SOC≤100%	
	▮▮▮▮	60%‹SOC≤80%	
	▮▮▮	40%‹SOC≤60%	Indicates the SOC of the system
	▮▮	20%‹SOC≤40%	
	▮	0%‹SOC≤20%	
		While discharging, the last LED flashes quickly(Once per second)	
		While charging, the last LED flashes slowly(Once per 2 seconds)	
b	●	Black Start On	Designed for off-grid systems. Press to supply energy to the inverter. Once the inverter starts working, LED will extinguish.
	●	DEFAULT	
c	●	Hotspot ON	1. Connecting with internet: Flash slowly. 2. Connecting with mobile device: Flash normally. 3. Non-connection: Solid ON .
	●	Hotspot OFF	
d	●	DEFAULT	Confirm the master tower. Make sure only the LED on master tower is ON. *Master tower: which is directly connected to the inverter.
	●		
e	●	DEFAULT	Confirm the last tower. Make sure only the LED on last tower is ON. *Last tower: Last tower in parallel.
	●		
f	●	DEFAULT	'FAULT' when system stops working
	●	FAULT	
g	●	DEFAULT	Alarm when fault occurs
	●	FAULT	
h	1	DEFAULT	Number 1-9 correspond modules from top to bottom.
	1	FAULT	

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Connection With Inverters

Connecting with **Kostal Plenticore Plus G2/ Plenticore G3 / Plenticore BI G2**

1 2 3 4 5 6 7 8   1 2 3 4 5 6

SIMPO HV

SIMPO HV	KOSTAL
PIN NO.	PIN NO.
2	1
6	6
7	4
8	5

Connecting with **Solis S6-EH3P & RHI -3P**

SIMPO HV
1 2 3 4 5 6 7 8

SIMPO HV	Solis
PIN NO.	PIN NO.
4	4
5	5

Connecting with **GoodWe** Inverters

SIMPO HV	GoodWe
PIN NO.	PIN NO.
4	4
5	5

SIMPO HV
1 2 3 4 5 6 7 8

To battery   To smart meter

RS485

Select '**Default 25A**' when selecting 'Battery model'
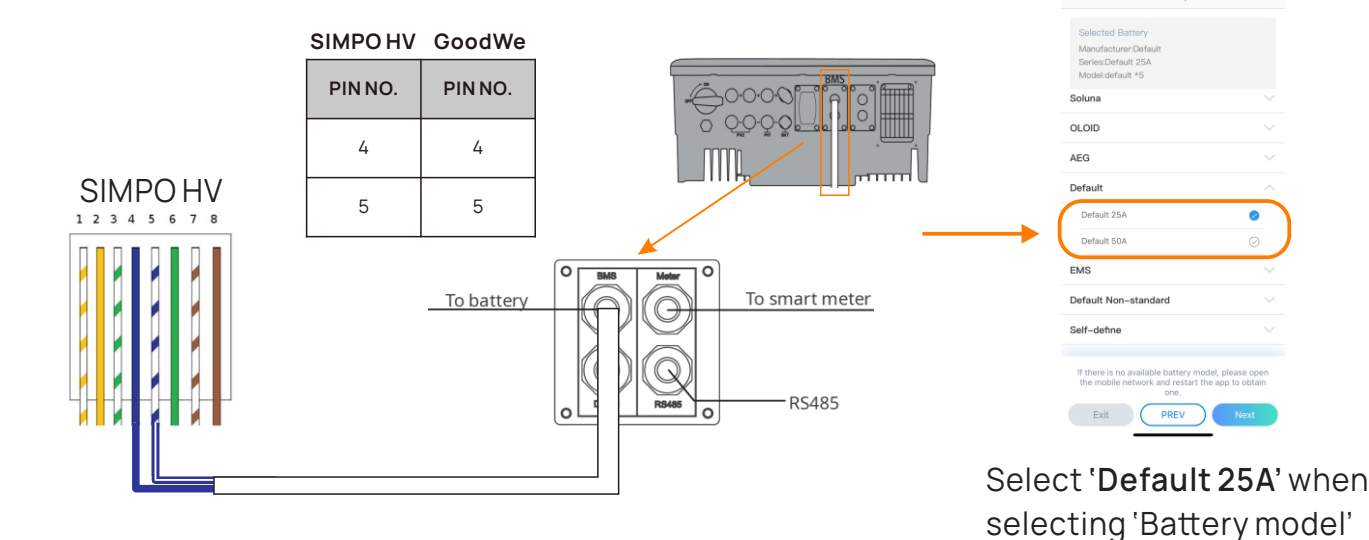
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Start Up

BMS

a.Turn on the **DC breaker** between battery and inverter(if any).
b.Turn on the **Air Switch.**
c.Press '**ON/OFF**' to start the system.
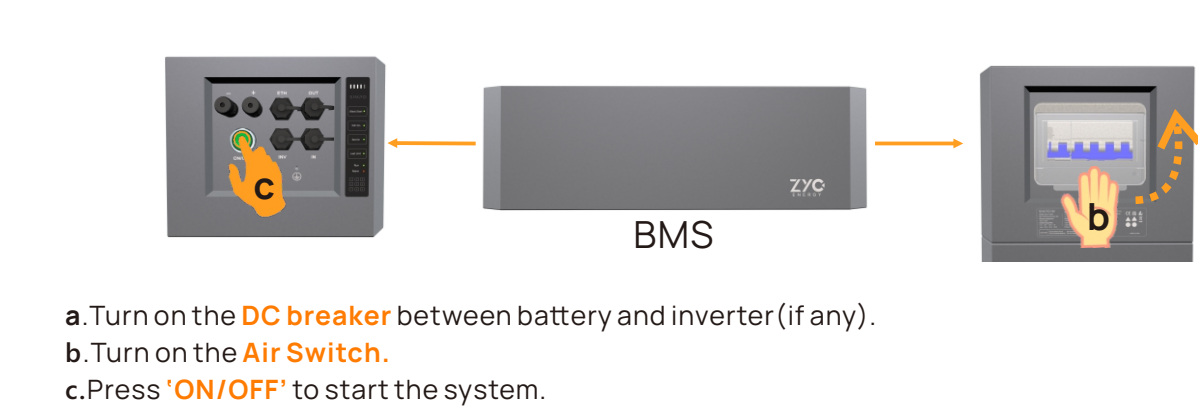
Connect to Internet & ZYC Portal & ZYC Assist

Internet

Connection   Router   **Master BMS**

Wireless

Network cable

Lable with WiFi name &password

Web: ZYC Portal
www.zycportal.com

Get ZYC Assist

ZYC **Assist Pro** (PC)   ZYC **Assist**

Configure SIMPO WIFI to the internet:
When the app is connected to the hotspot of SIMPO WIFI, follow the steps below:

Open ZYC Assist APP ➝ Others ➝ Connect to Internet ➝ Fill in the WiFi name and password of Router

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