

Quick Guide

APX 5.0~30.0P-S0



Environmental conditions



Max.+50℃

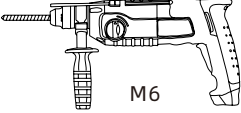


Min.-10℃



RH.5%~95%

Installation tools



M6



M6 2N·m

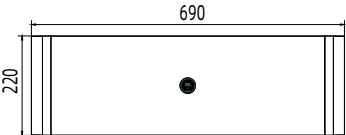


M4 1N·m

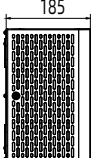
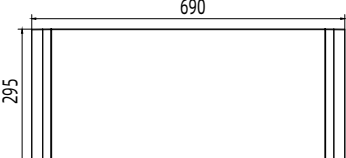
System size

Unit:mm

APX 55027-P0
(Power Module)

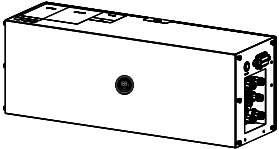


APX 5.0P-B1
(Battery Module)

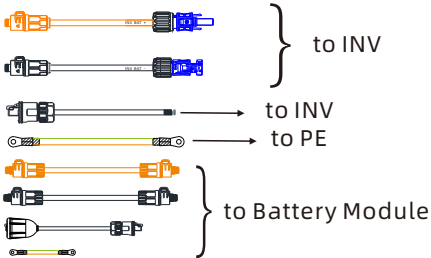


1.Inspection upon delivery

1 - 1 Checking the APX 55027-P0 packing list (New packaging)



APX 55027-P0 (PM)

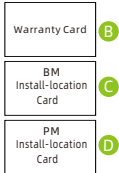


System cable

- to INV
- to INV
- to PE
- to Battery Module



Quick Guide

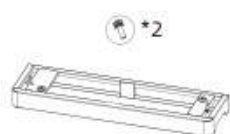


Warranty Card
BM Install-location Card
PM Install-location Card

- A Quick Guide *1
- B Warranty Card *1
- C BM Install-location Card *1
- D PM Install-location Card *1



Anti tipping plate *2
M6 expansion bolt *2
M6x12 stainless steel screws *1
M4x9 stainless steel screws *3
Orange Waterproof Plug *1
Black Waterproof Plug*1
2 mm thick shims *4
1 mm thick shims *4



APX 5.0P-B1 Base*1



Left trim-cover*1

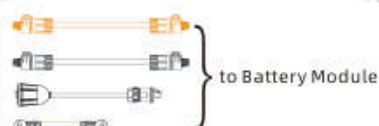


Right trim-cover*1

1-2 Check APX 5.0P-B1 List



APX 5.0P-B1 (BM)



Parallel cable *1



Trim-cover *2

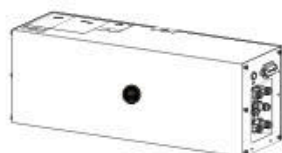


Warranty Card*1



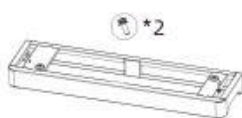
- A Anti tipping plate *2
- B M6 expansion bolt *2
- C M4x9 stainless steel screws *3

1-3 Check the APX Battery System of different capacities

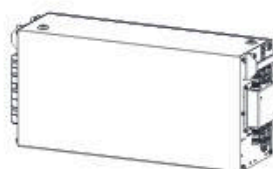


APX 55027-P0

A



APX 5.0P-B1 Base



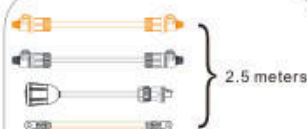
APX 5.0P-B1

B



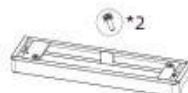
Wall bracket

C



APX 5.0P-B1 Parallel extension cable

D

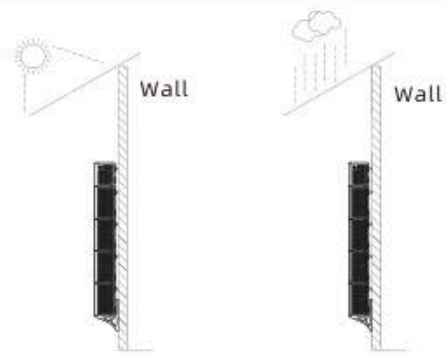


APX 5.0P-B1 Base

E

Battery System Capacity	Floor Installation Compound Mode	Wall-Mounted Installation Compound Mode
5kWh	A+B	A+B+C
10kWh	A+B*2	A+B*2+C
15kWh	A+B*3	A+B*3+C
20kWh	A+B*4	A+B*4+C
25kWh	A+B*5+E+D	A+B*5+C*2+D
30kWh	A+B*6+E+D	A+B*6+C*2+D

2.Installation environment requirements



Note: When installed outdoors, build a sun/rain shelter to protect the battery system from direct sunlight and rain.

3. Floor-mounted installation

3-1 Installation location requirements

Note: For the floor-mounted installation with the base, a maximum of six battery modules can be configured. If the number of the battery modules to be installed is greater than four, you are advised to install them in 2 columns.

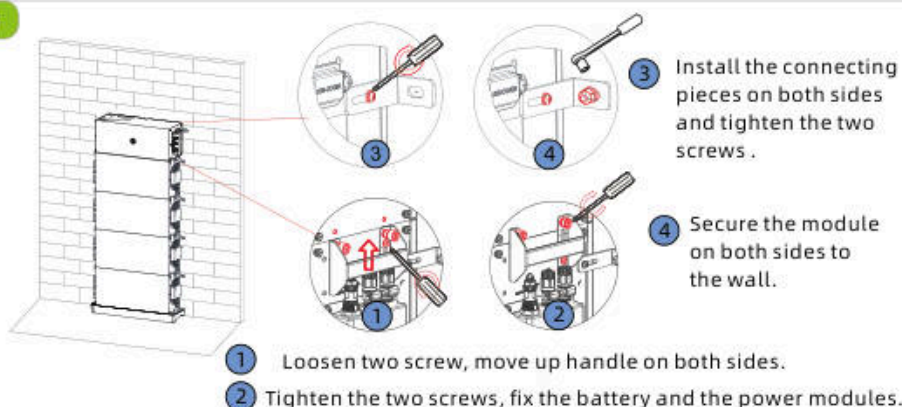
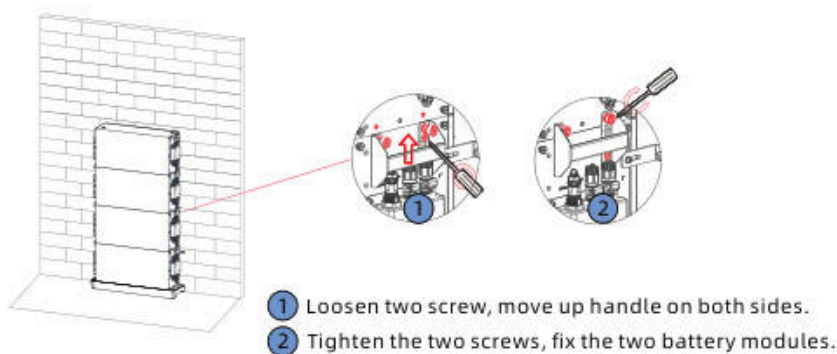
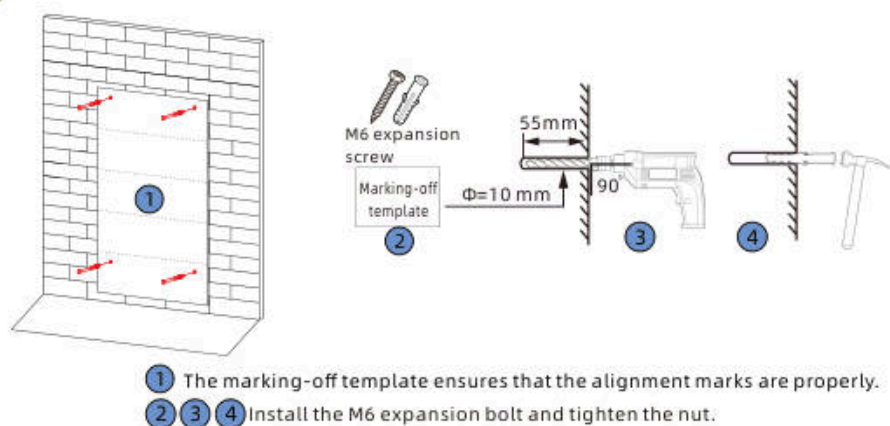
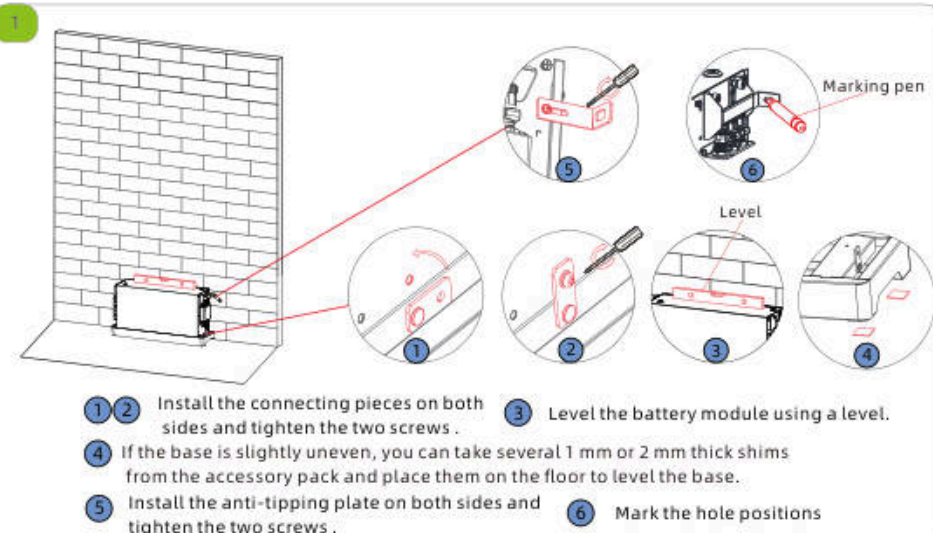
3-2 Installation procedure

Unit:mm

Mounting Hole Dimensions

Power Module installation size

Battery Module installation size



4. Wall-mounted installation

4-1

Installation location requirements

Note: When mounted on the wall, a maximum of six battery modules can be configured.
If the number of the battery modules to be installed is greater than four, you are advised to install them in 2 columns. Ensure that the load-bearing capacity of the wall exceeds the total weight of the system (PM weighs 10 kg and each BM weighs 50 kg).

4-2

Installation procedure

Unit:mm

Mounting Hole Dimensions

20kWh
15kWh
10kWh
5kWh

643
1344
1049
754
459

120
330

Power Module installation size
Left

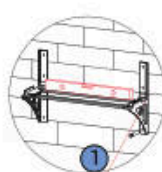
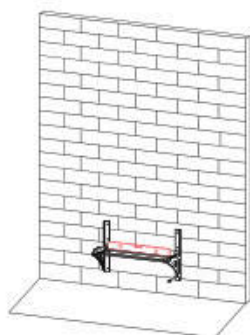
242.5
537.5
832.5
1127.5

Battery Module installation size
Right

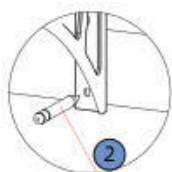
1

install the wall bracket

2



Level



Marking pen

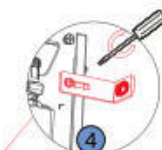
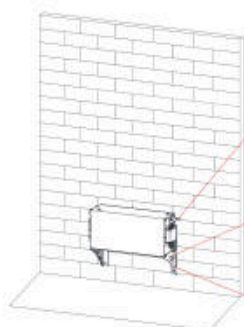


Dia 8.0mm

Deep 45~50mm

- ① Level the battery Module using a level.
- ② Mark the hole positions.
- ③ Drilling eight holes.

3

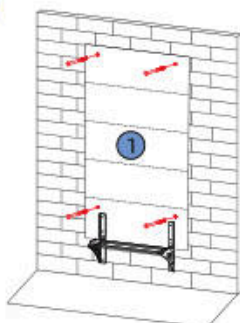


- ④ Install the anti tipping plate on both sides and tighten the two screws.



- ① ② Fix the bracket on the wall.
- ③ Fix the battery module on the bracket.

4



M6 expansion screw

Marking-off template



55mm

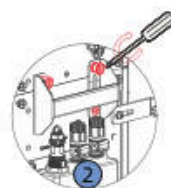
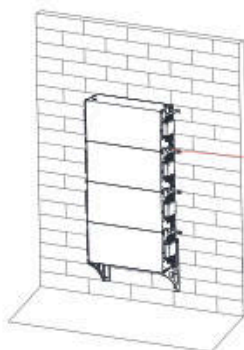
 $\Phi=10\text{ mm}$

90°



- ① Install-location card ensures alignment marks on the wall.
- ② ③ ④ Install the M6 expansion bolt and tighten the nut.

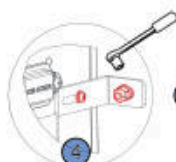
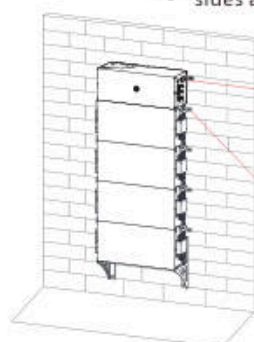
5



- ① Loosen two screws, move up handle on both sides.
- ② Tighten the two screws, fix the two battery modules.

6

- ③ Install the connecting pieces on both sides and tighten the two screws.



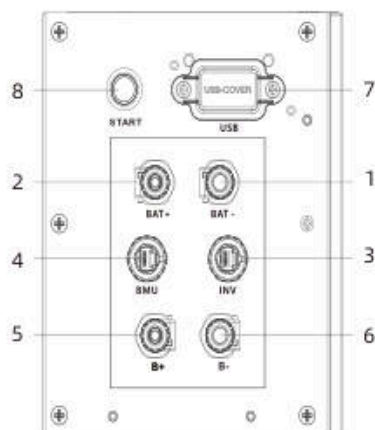
- ④ Secure the module on both sides to the wall.



- ① Loosen two screws, move up handle on both sides.
② Tighten the two screws, fix the battery and the power modules.

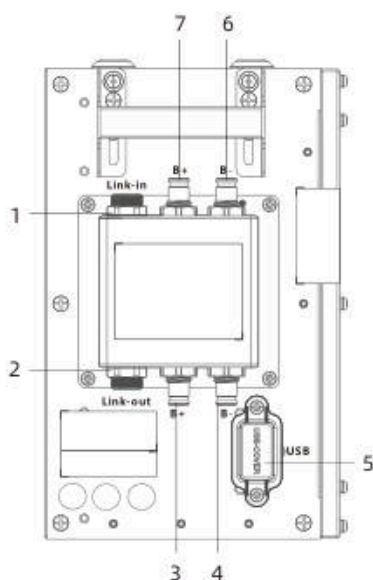
5. Cable connection

5-1 APX 55027-P0 terminal & key description



1	BAT-	Battery negative terminal to INV
2	BAT+	Battery positive terminal to INV
3	INV	Inverter communication to INV
4	BMU	Battery module communication to battery (Link-in) module
5	B+	Battery module positive terminal to battery (B+) module
6	B-	Battery module negative terminal to battery (B-) module
7	USB	USB terminal
8	Start	Startkey

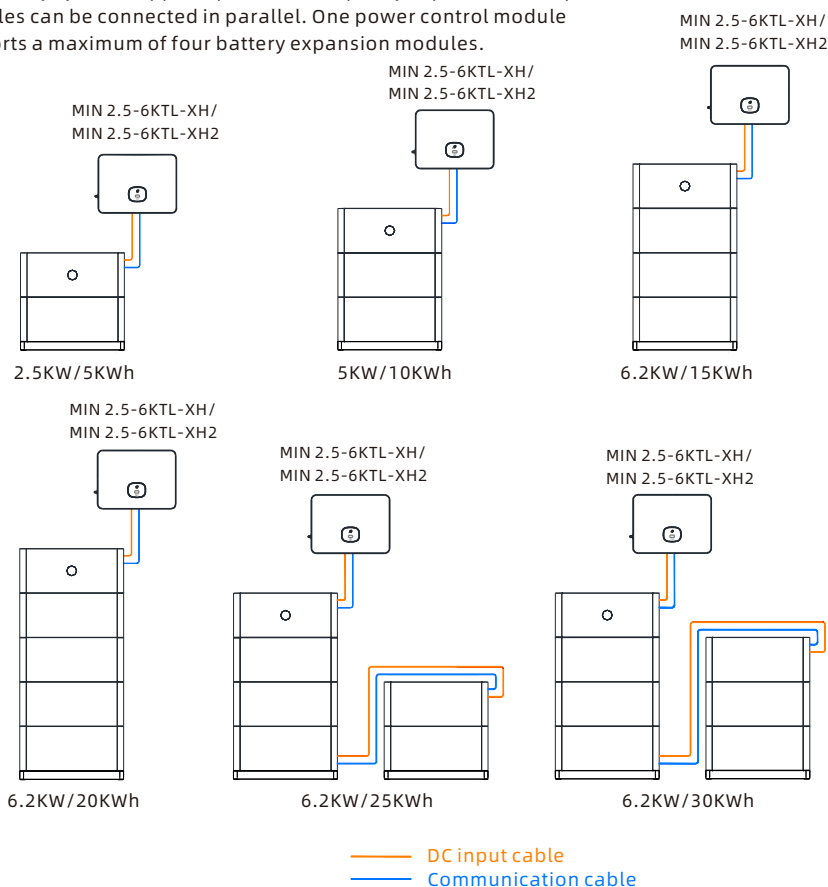
5-2 APX 5.0P-B1 terminal description



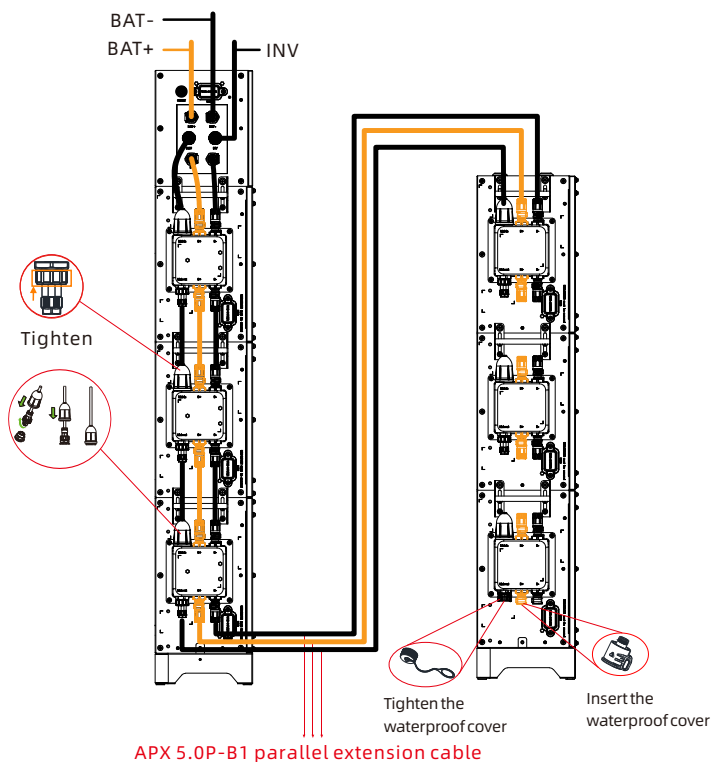
1	Link-in	Link-in communication to another battery (Link-out) or power module (BMU)
2	Link-out	Link-out communication to another battery (Link-in) module
3	B+	Battery positive terminal to another battery (B+) module
4	B-	Battery negative terminal to another battery (B-) module
5	USB	USB terminal
6	B-	Battery negative terminal to another battery (B-) or power module (Module-)
7	B+	Battery positive terminal to another battery (B+) or power module (Module+)

5-3 Battery capacity description

The battery system supports power and capacity expansion. Two power control modules can be connected in parallel. One power control module supports a maximum of four battery expansion modules.



5-4 System wiring diagram

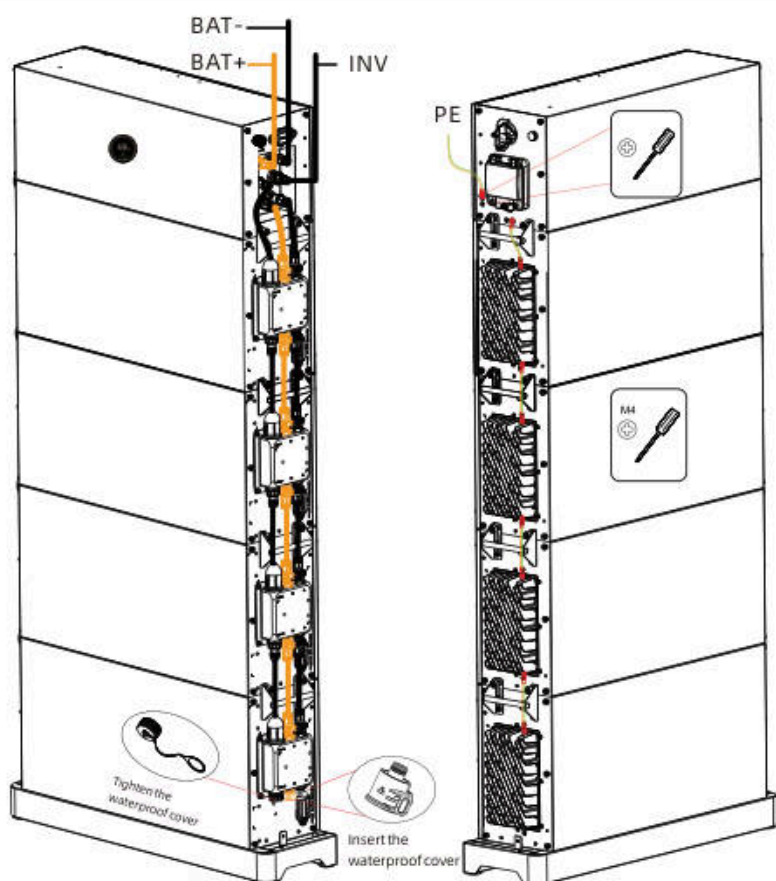


Wiring sequence:

Grounding cable ⇌ Communication cable ⇌ Power cable

Note:

- When wiring the communication cable, remember to tighten the protective cover of the communication cable; otherwise it might undermine the waterproof performance. Water penetration caused by failure to do so is beyond the scope of warranty.)
- The waterproof cover for the power module accessory kit must be connected to the power terminals B+ and B- at the base of the final battery module.



Note: It is not recommended to install a DC circuit breaker between the battery system and the INV, if you want to install a DC circuit breaker with rated working voltage greater than 600V and rated working current greater than 63A, do not operate the DC circuit breaker with power on, otherwise the machine may be damaged.

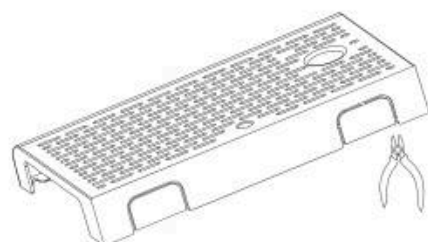
5-5 Routing cables out of the cable hole



APX 98034-P2 Left trim-cover



ground wire



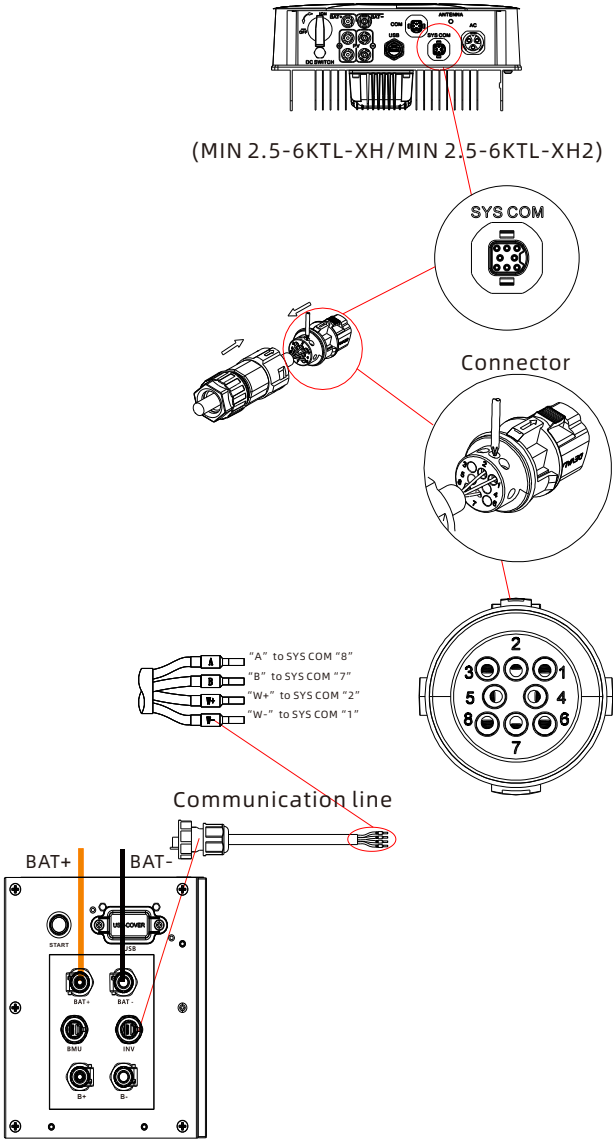
APX 98034-P2 Right trim-cover



BAT-
INV
BAT+

5-6 Communication port connection

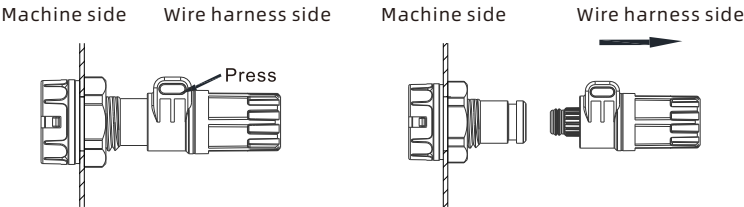
APX 5.0-30.0P-S0			(MIN 2.5-6KTL-XH/MIN 2.5-6KTL-XH2)		
Silk screen	Terminal serial number	Definition	Silk screen	Terminal serial number	Definition
INV	1	WAKE-(W-)	SYS COM	1	Enable-
	2	WAKE-(W+)		2	Enable+
	7	RS485_B(B)		7	BAT_B
	8	RS485_A(A)		8	BAT_A



Note: When wiring the communication cable to the inverter, connect it to PIN 1, 2, 7, 8 of the INV-COM terminal first.

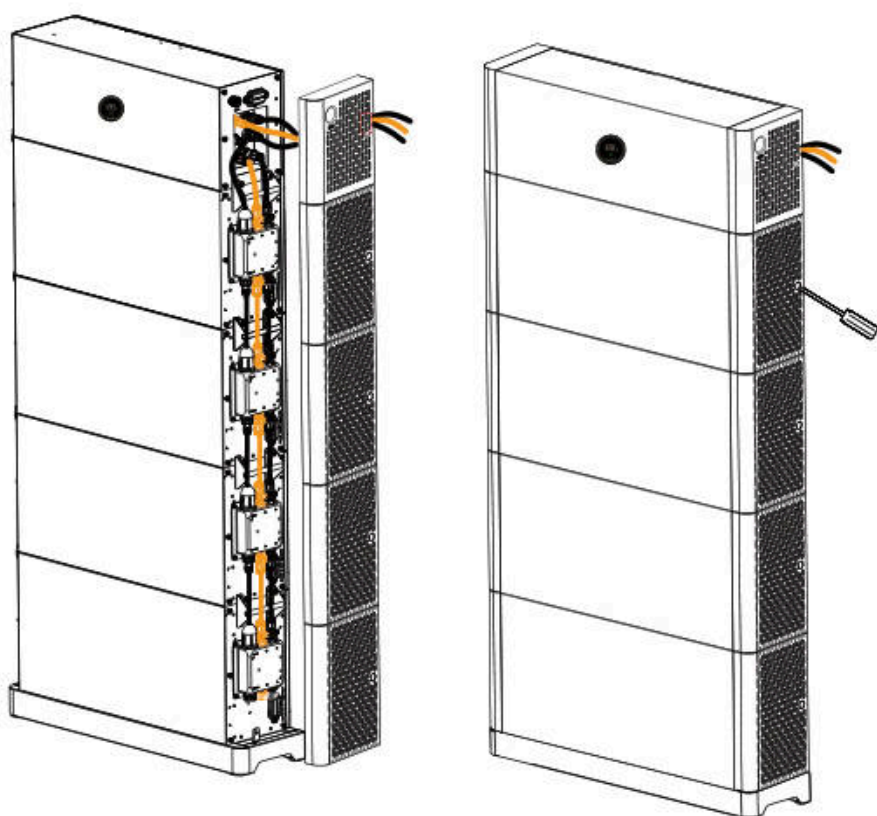
6. Terminal connection

6-1 Power terminal



Note: Press the position indicated in the figure above before disconnecting the power terminal.

6-2 Installing the trim-cover



7. Powering on/off the battery system

Power on	1. Turn on DC Switch 2. Press the start key more than 5s	
System off	Turn off DC Switch (wait for over 90s)	

Note:

1. Before performing maintenance and repair work, ensure that the AC circuit breaker and the PV switch of the PCS, as well as the switch of the APX are disconnected. Wait for 15 minutes after the system is powered off and make sure that the LOGO () indicator on the APX is off. Do not perform any operations until the system is completely shut down.
2. When multiple battery systems are used in parallel connection, you only need to press the start key of and module to start the system.
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