

GROWATT
APX 98020-P1
Power Module
Battery Module



GROWATT APX 98020-P1 Power Module Battery Module Installation Guide

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GROWATT APX 98020-P1 Power Module Battery Module



Specifications

- **Product Model:** APX 5.0~30.0P-S1
- **Manufacturer:** Shenzhen Growatt New Energy Co., Ltd.
- **Battery Capacity:** 5kWh, 10kWh, 15kWh, 20kWh, 25kWh, 30kWh

Product Usage Instructions

Installation Environment Requirements

Ensure the installation environment has a maximum temperature of +50°C.

Floor-Mounted Installation

When installing on the ground, stack a maximum of six battery modules. For more than four modules, install them in two columns.

Installation Procedure

1. Install connecting pieces on both sides and tighten the two screws.
2. Level the battery module using a level.
3. Install anti-tipping plates on both sides and tighten the two screws.
4. Mark the hole positions using the marking-off template.
5. Secure the module to the ground.

Wall-Mounted Installation

Mount a maximum of five battery modules on the wall. Ensure the wall's load-bearing capacity exceeds 280 kg.

Installation Procedure

1. Loosen two screws, move up the handle on both sides.
2. Tighten the two screws to fix the battery modules.
3. Install connecting pieces on both sides and tighten the screws.
4. Secure the modules to the wall.

Frequently Asked Questions

Q: What is the maximum temperature for the installation environment?

A: The maximum temperature for the installation environment is +50°C.

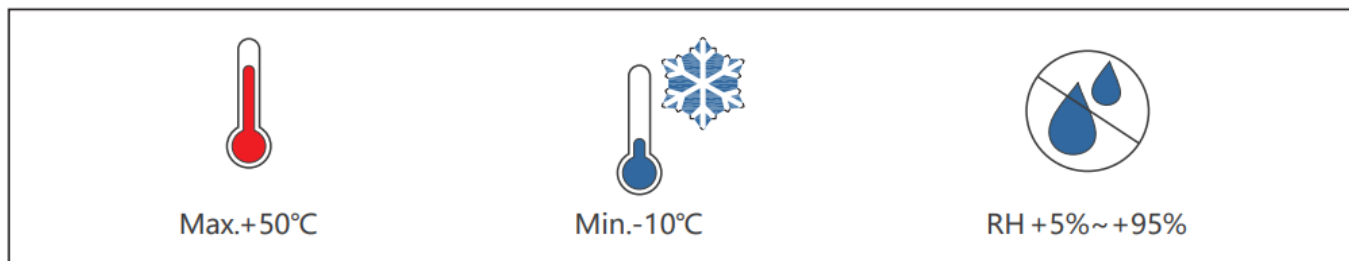
Q: How many battery modules can be stacked when floor-mounted?

A: A maximum of six battery modules can be stacked on the ground, with a recommendation to install more than four modules in two columns.

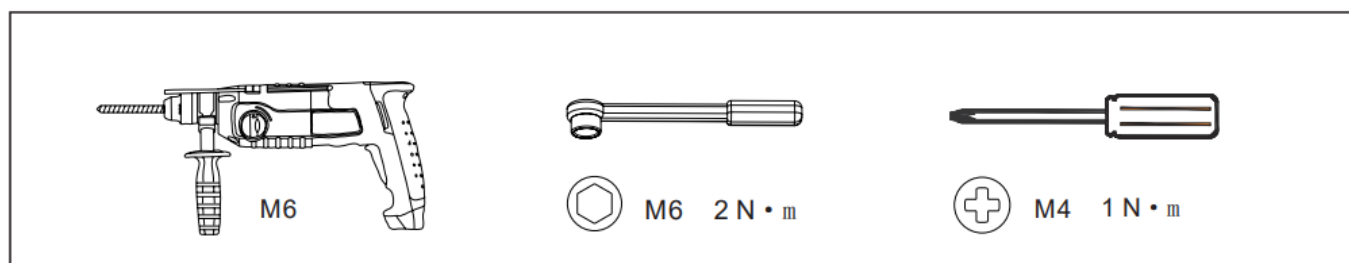
Q: How many battery modules can be mounted on a wall?

A: A maximum of five battery modules can be stacked on a wall, ensuring the wall's load-bearing capacity exceeds 280 kg.

Environment requirements



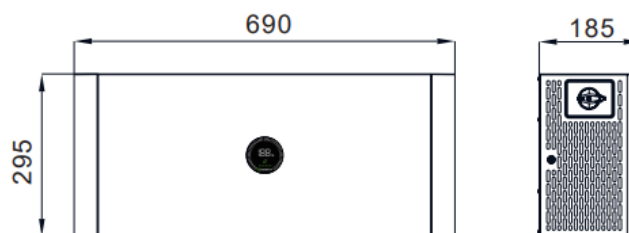
Installation tools



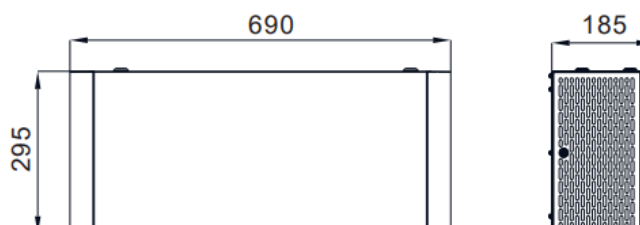
Dimensions

Unit:mm

APX 98020-P1
(Power Module)



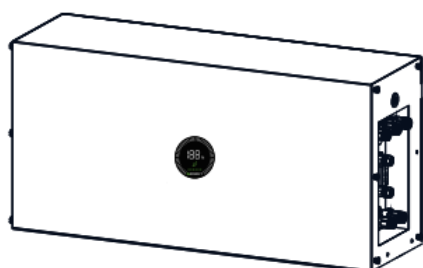
APX 5.0P-B1
(Battery Module)



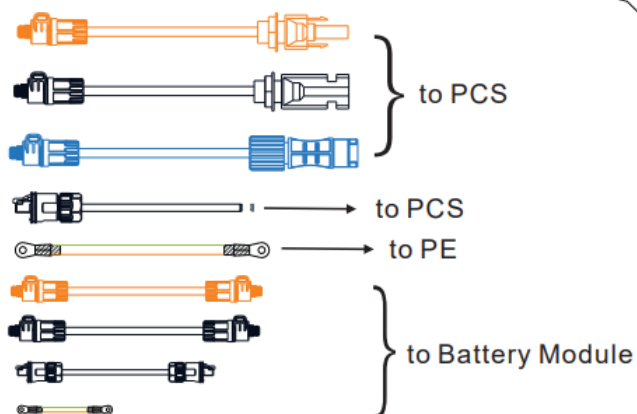
Inspection upon delivery

Checking the APX 98020-P1 packing list

Please check that the content is complete



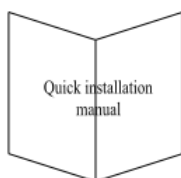
APX 98020-P1 (PM)



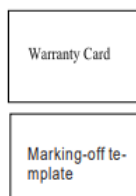
System cable



A



B



C

D

- A Operation Manual *1
- B Quick installation manual *1
- C Warranty Card *1
- D Marking-off template *1



A



B



C

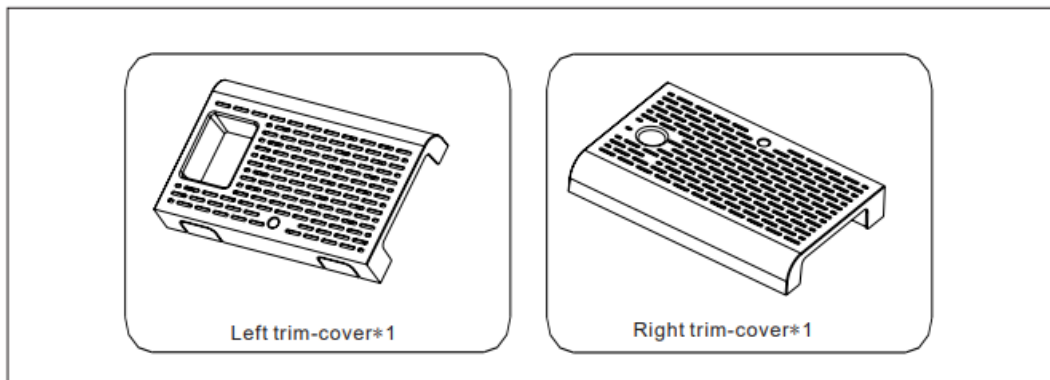


D

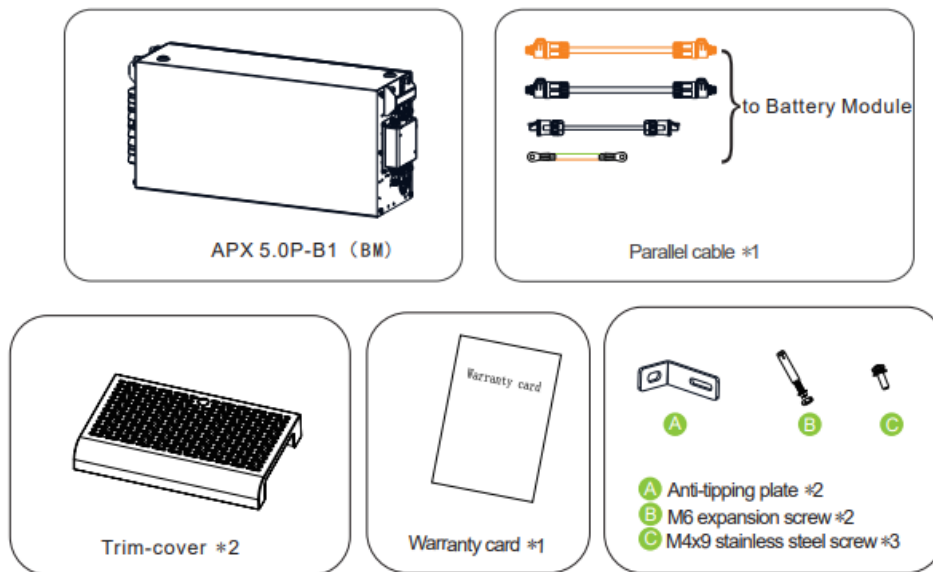


E

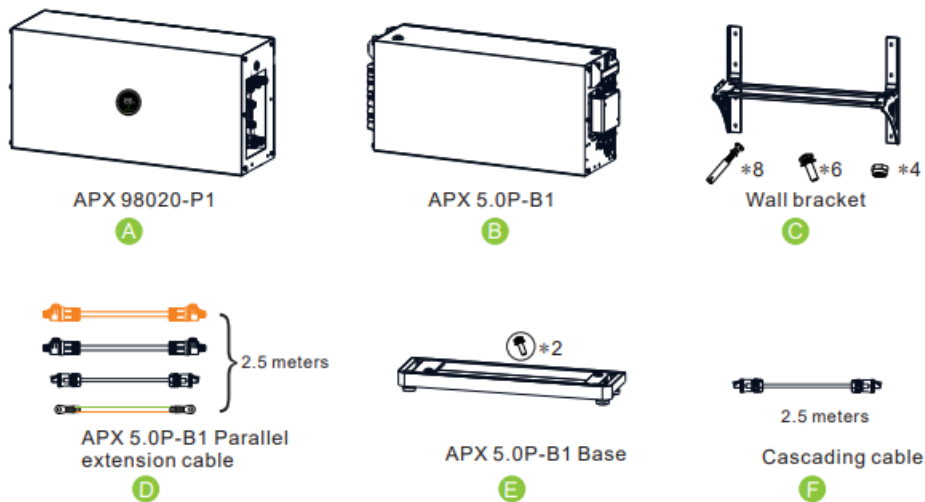
- A Protective rubber ring *4
- B Anti-tipping plate *2
- C M6 expansion screw *2
- D M6x12 stainless steel screw *1
- E M4x9 stainless steel screw *3



Checking the APX 5.0P-B1 packing list

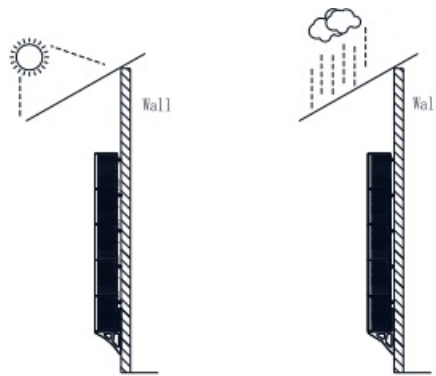


Check accessories



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

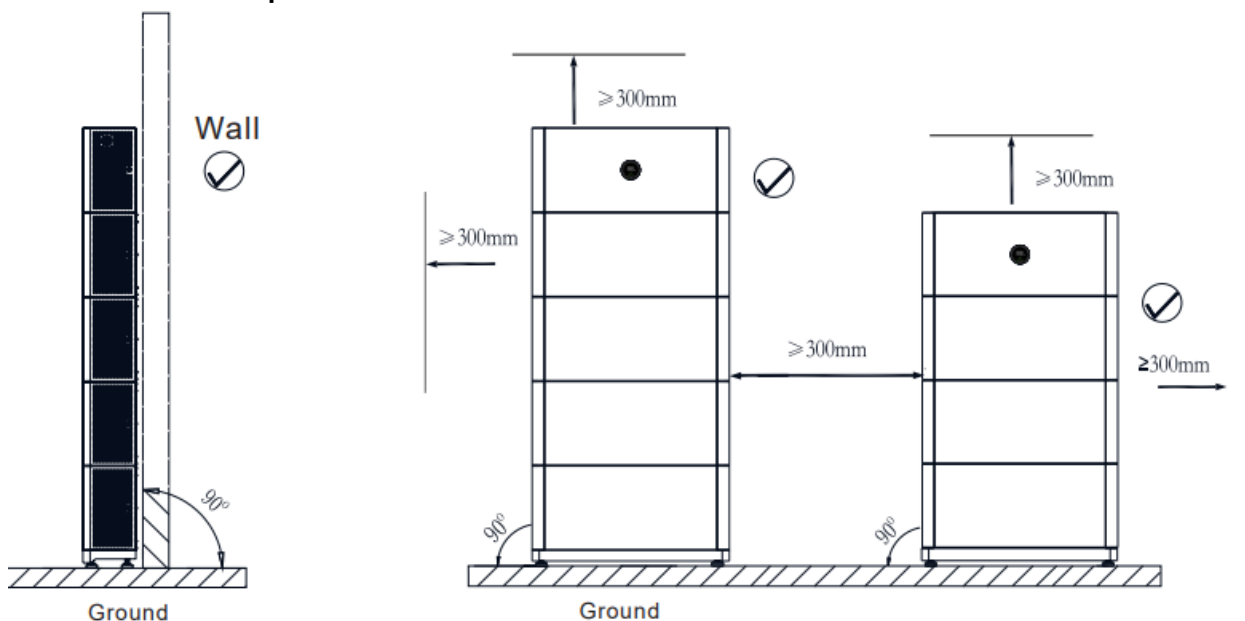
Installation Environment Requirement



Note: Install a sun/rain shade to avoid exposure to direct sunlight and rain.

Floor-mounted installation

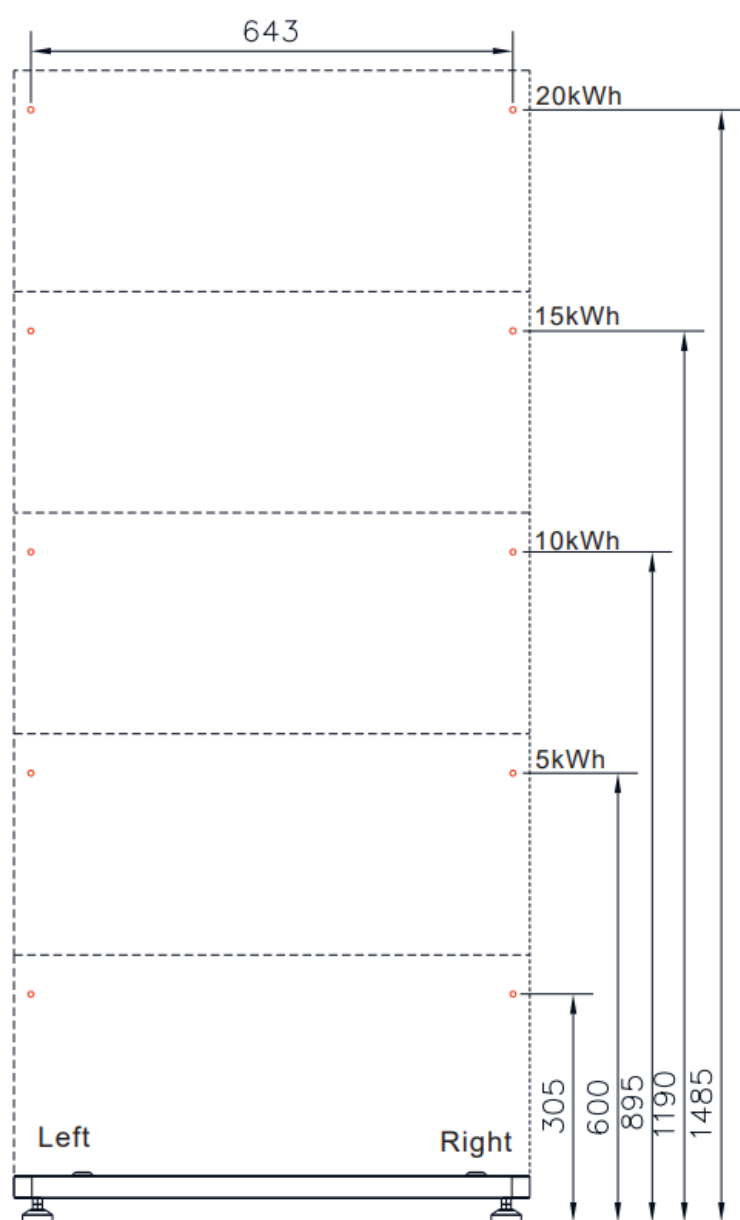
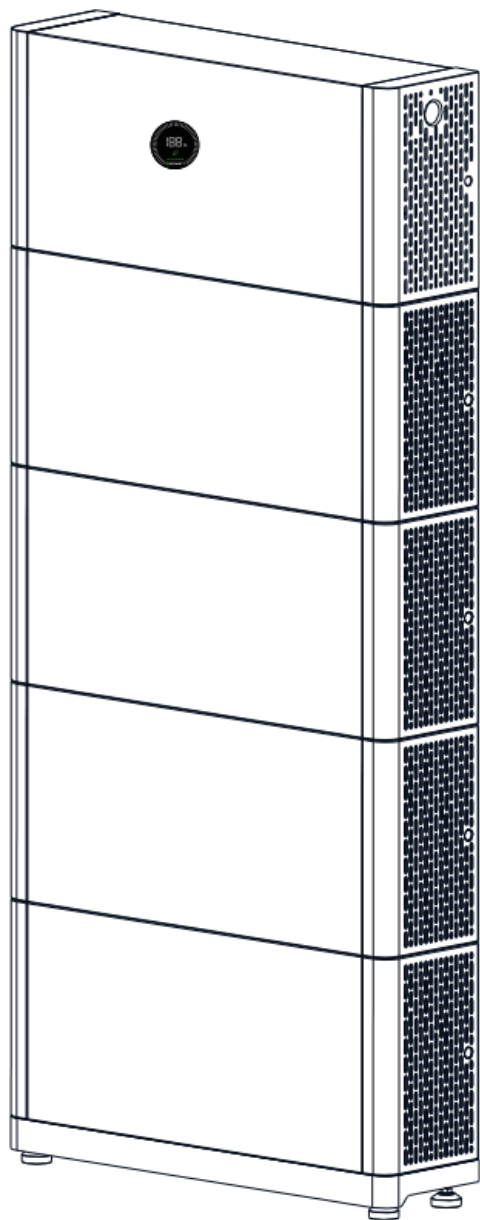
Installation Location Requirements

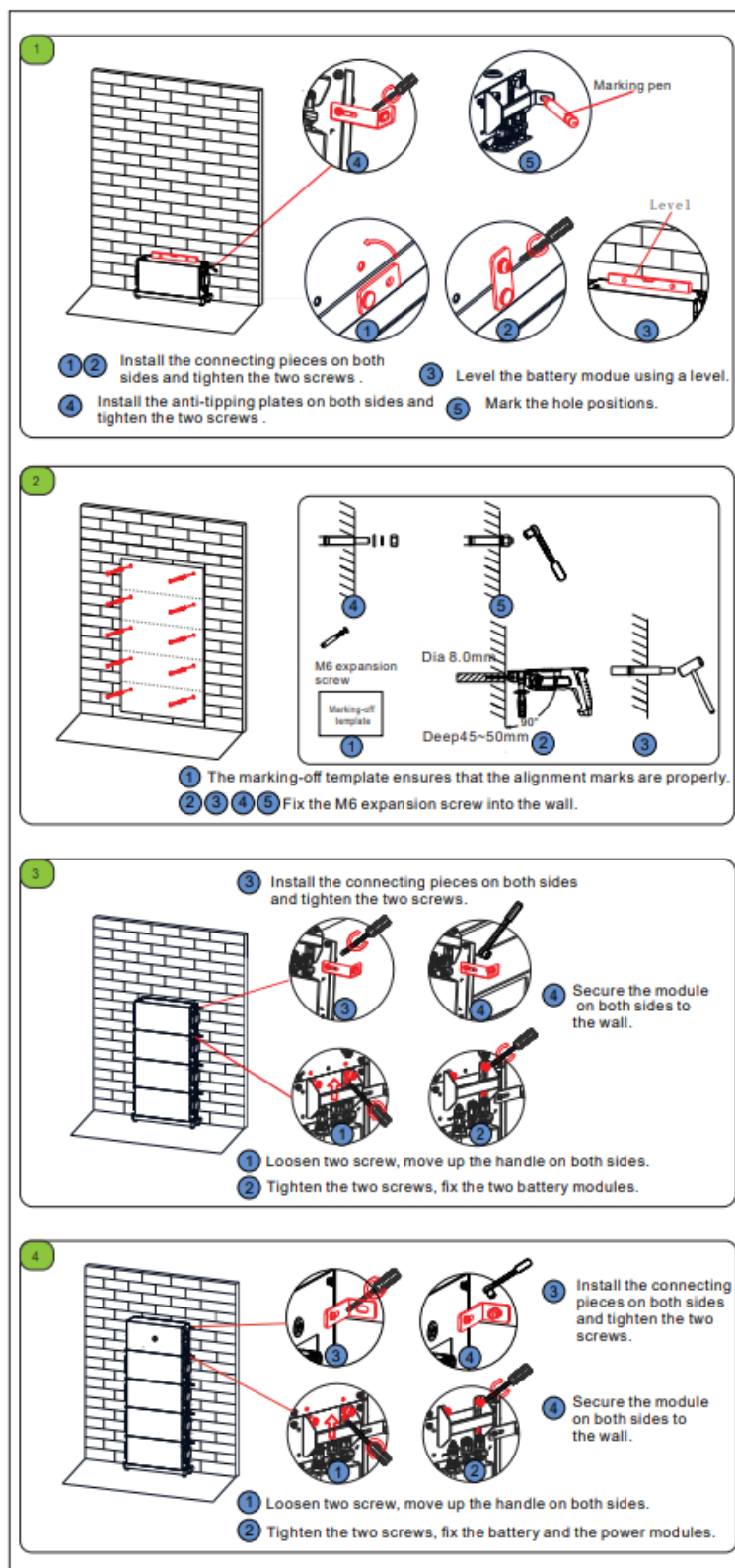


- **Note:** When mounted on the ground, a maximum of six battery modules can be stacked.
- If you are installing more than four modules you are advised to install them in two columns.

Installation Procedure

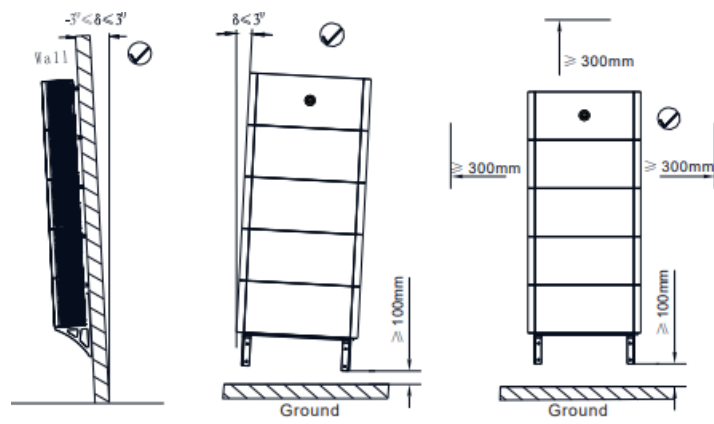
Mounting Hole Dimensions Unit: mm





Wall-Mounted Installation

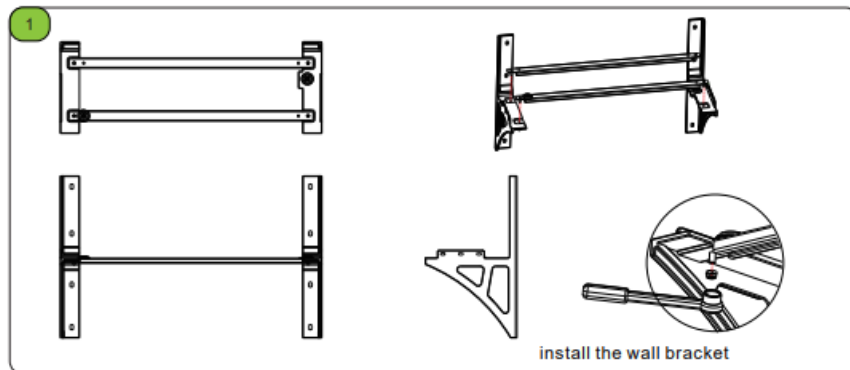
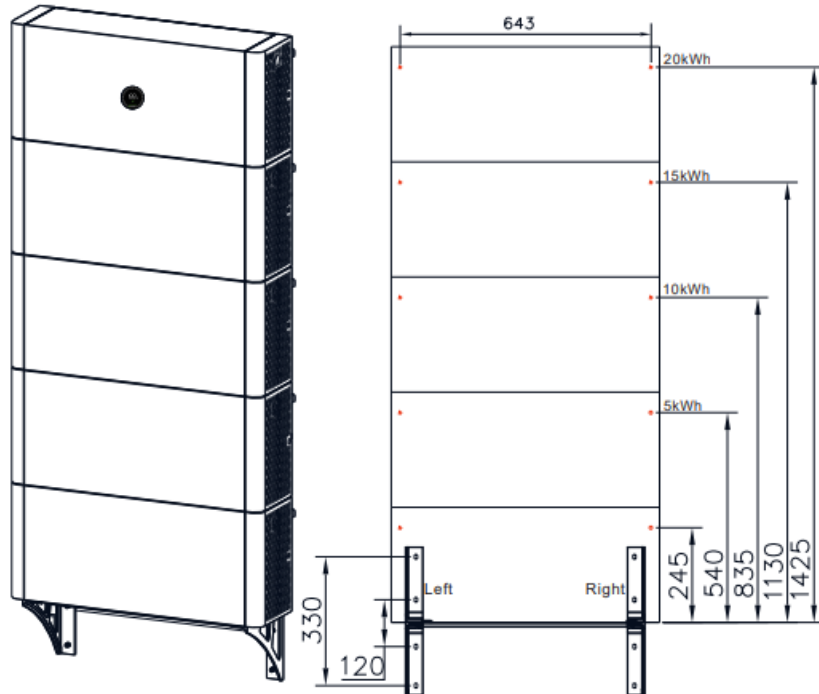
Installation Location Requirements



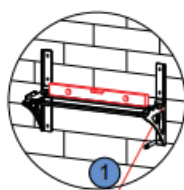
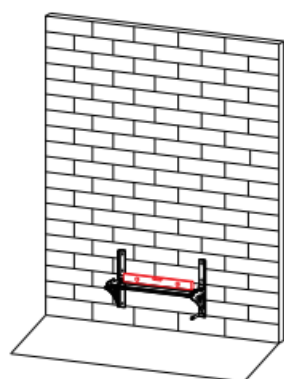
Note: When mounted on the wall, a maximum of five battery modules can be stacked. Please ensure that the load-bearing capacity of the wall exceeds 280 kg.

Installation Procedure

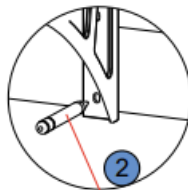
Mounting Hole Dimensions Unit: mm



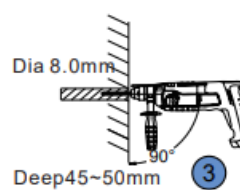
2



Level



Marking pen

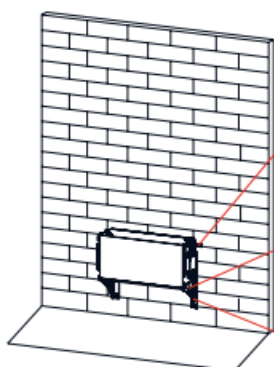


Dia 8.0mm

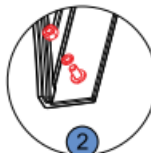
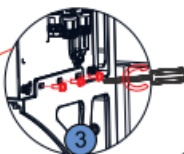
Deep 45~50mm

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

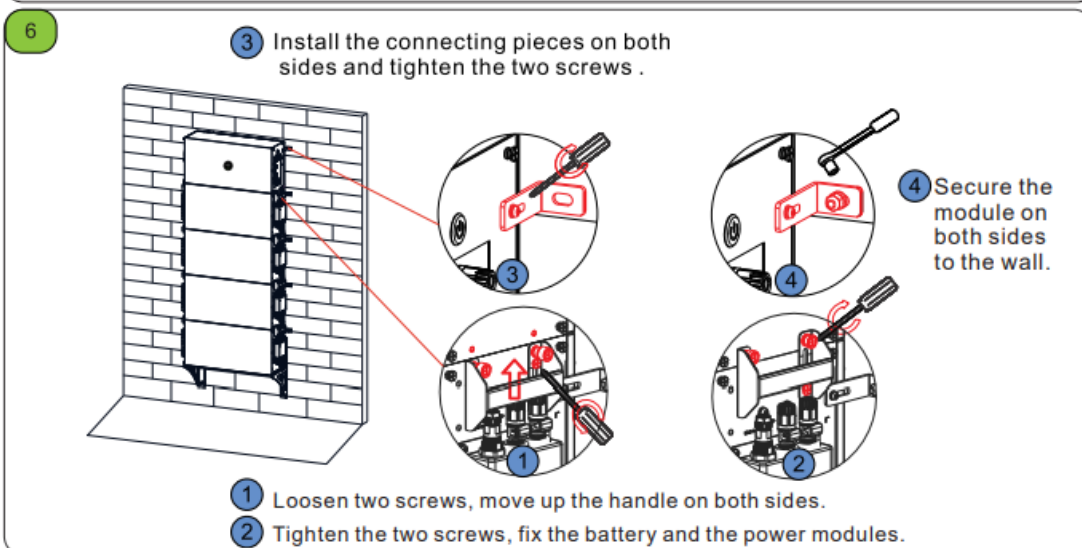
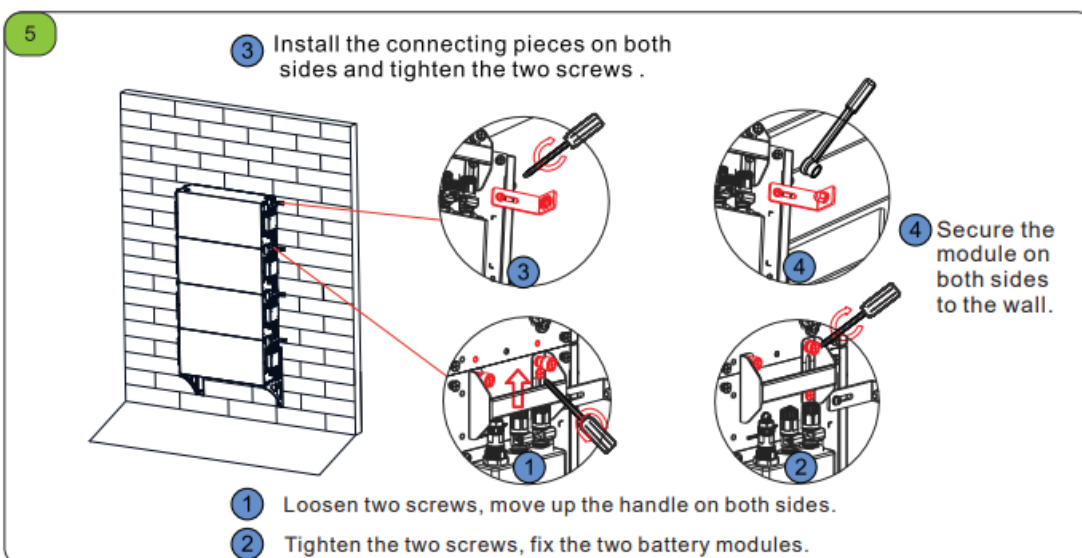
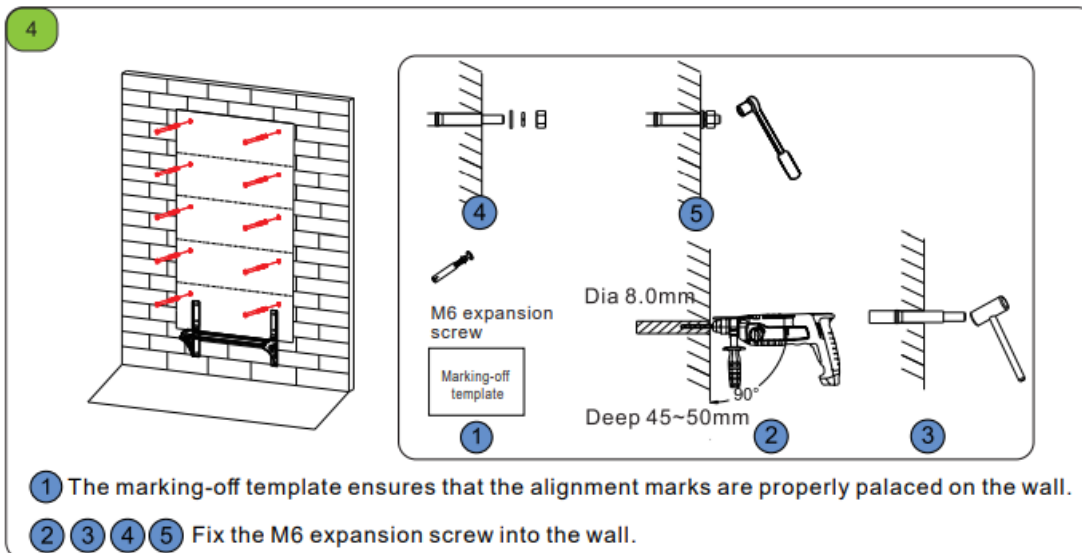
3



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

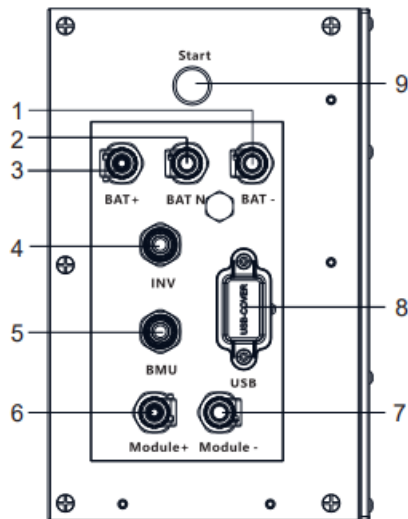


- ① ② Fix the bracket on the wall.
- ③ Fix the battery module on the bracket.



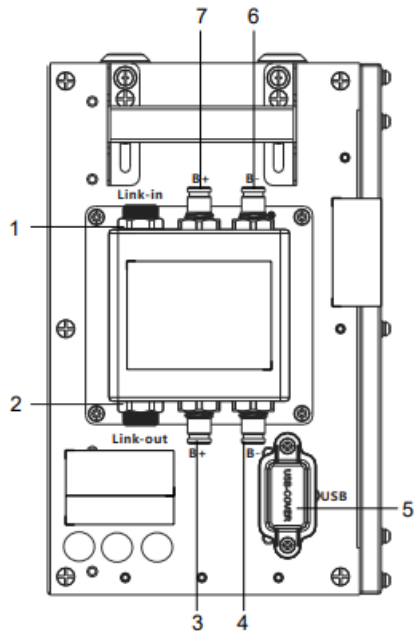
Wire Connection

APX 98020-P1 terminal & key description



1	BAT-	Battery negative terminal to connected to the PCS
2	BAT N	Battery neutral terminal to connected to the PCS
3	BAT+	Battery positive terminal to connected to the PCS
4	INV	Communication terminal connect to the PCS
5	BMU	Communication terminal connect to the battery module (Link-in)
6	Module+	Connect to the positive battery terminal of the Battery Module (B+)
7	Module-	Connect to the positive battery terminal of the Battery Module (B-)
8	USB	USB terminal
9	Start	Start key

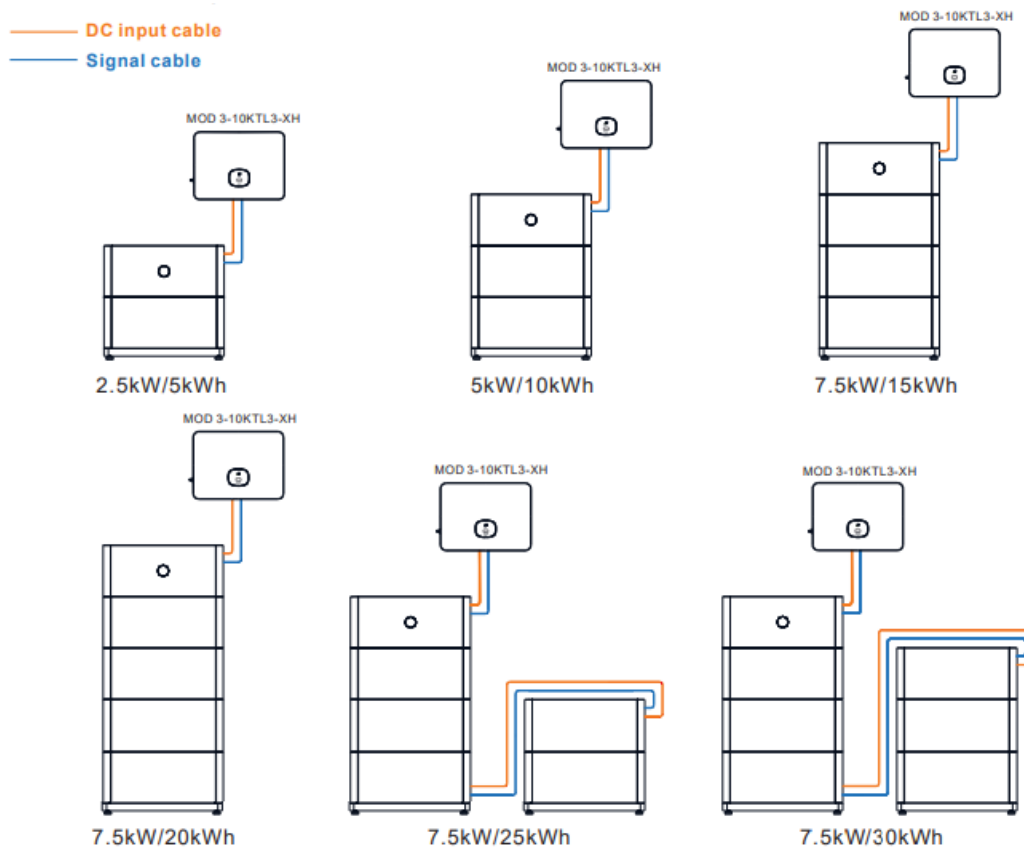
APX 5.0P-B1 Connection end face introduction



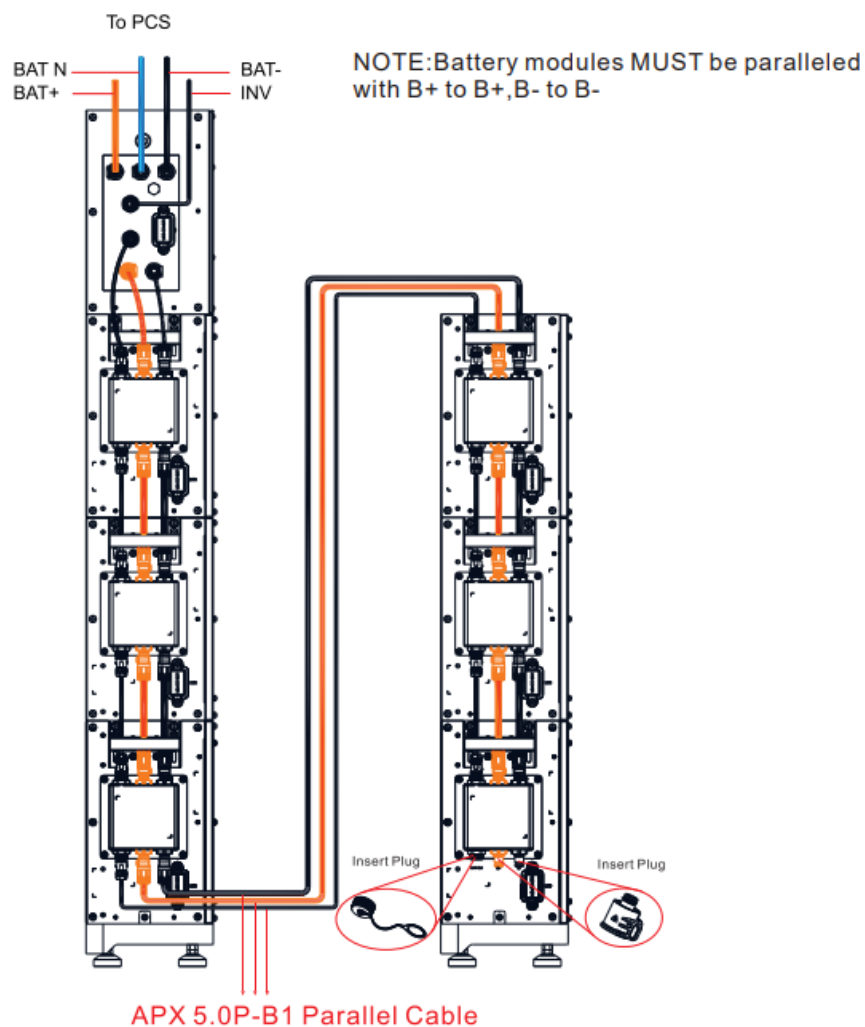
1	Link-in	Communication terminal Connect to another BM(Link-out) or the PM(BMU) Communication
2	Link-out	Communication terminal Connect to another BM(Link-in) or the PM(BMU)Communication
3	B+	Battery positive terminal Connect to another BM(B+)
4	B-	Battery negative terminal Connect to another BM (B-)
5	USB	USB terminal
6	B-	Battery negative terminal Connect to another BM(B-) or the PM (Module-)
7	B+	Battery positive terminal Connect to another BM(B-) or the PM (Module-)

Battery Capacity Description

The battery supports power and capacity expansion. A maximum of six battery modules can be connected to a single power module.

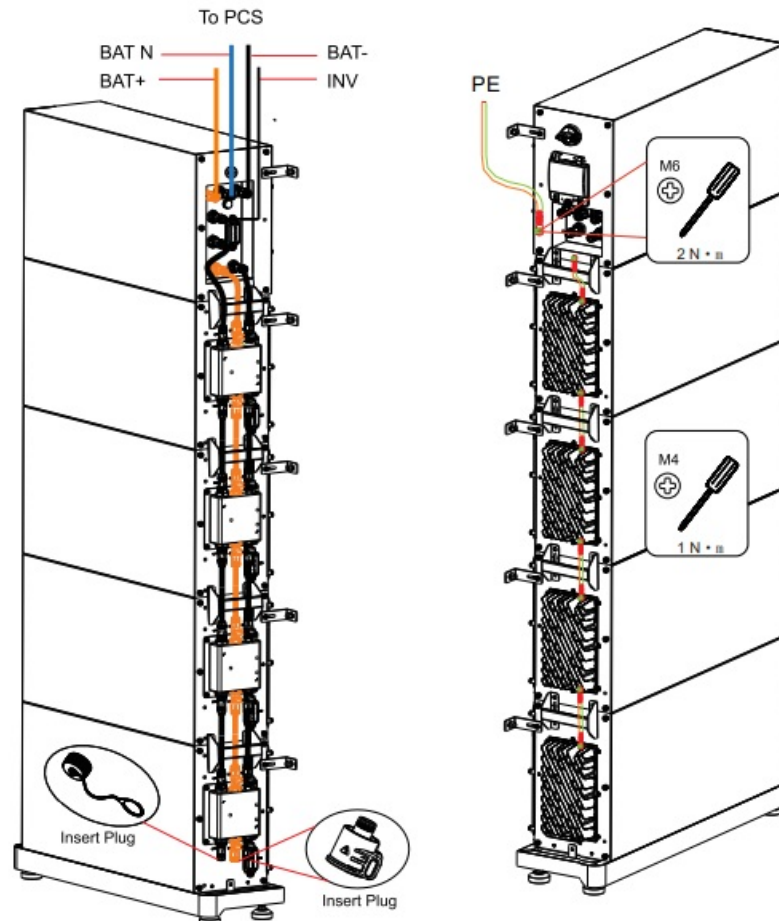


Wiring diagram



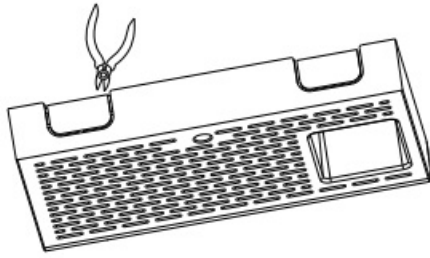
wire connection sequence:

ground cable → communication cable → power cable

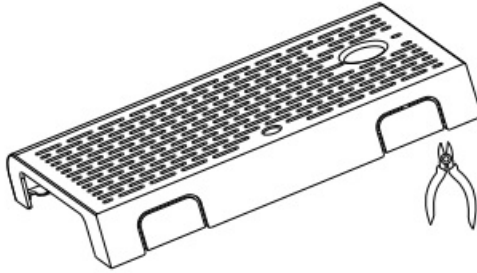
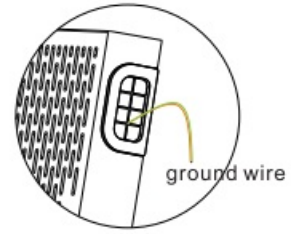
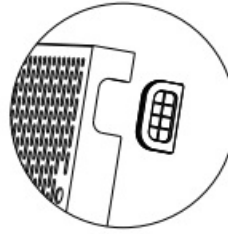


- **Note:** It is not recommended to install a DC circuit breaker between the battery system and the PCS.
- If you want to install a DC circuit breaker with a rated working voltage greater than 1000V and a rated working current greater than 63A, do not operate the DC circuit breaker with power on, otherwise the machine may be damaged.

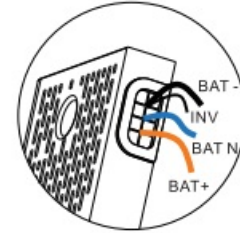
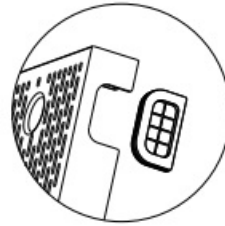
Routing Cables Out of the Cable Hole



APX 98020-P1 Left trim-cover

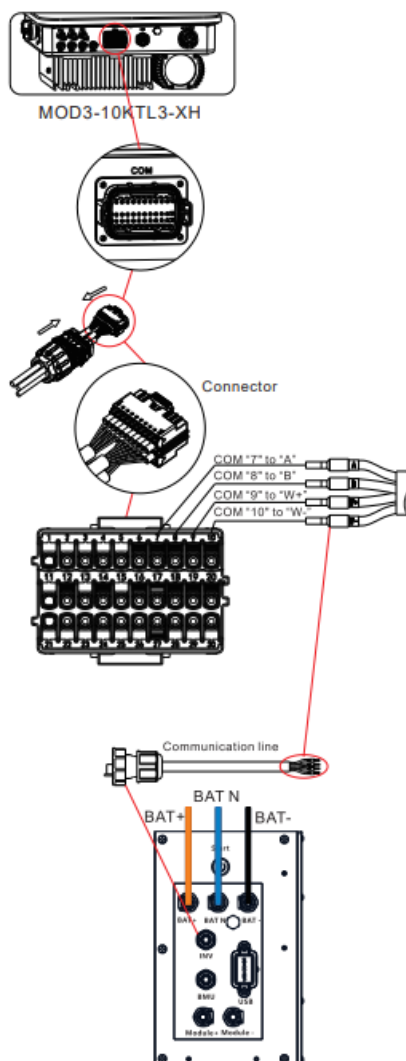


APX 98020-P1 Right trim-cover



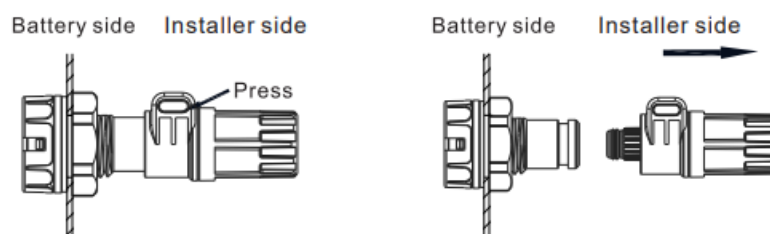
Communication port connection

APX 5. 0-30. 0P-S1			MOD 3-10KTL3-XH		
Silk screen	Terminal serial number	Definition	Silk screen	Terminal serial number	Definition
INV	1	WAKE- (W-)	COM	10	BAT.EN-
	2	WAKE+ (W+)		9	BAT.EN+
	7	RS485_B (B)		8	RS485B2
	8	RS485_A (A)		7	RS485A2



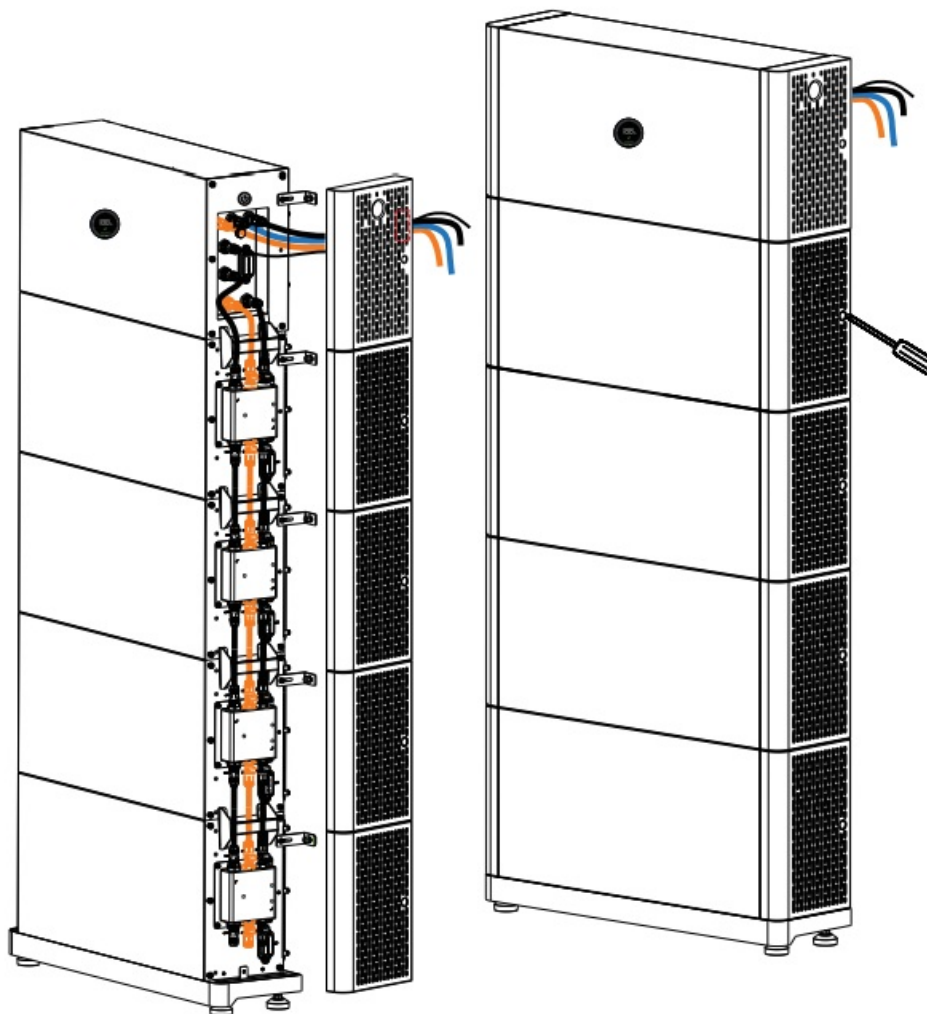
Terminal Connection

Power terminal


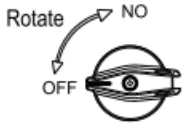


Note: Press the position indicated in the figure above before disconnecting the power terminal.

Installing the trim-cover



Key operation

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

Note:

- 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 (GROWATT) indicator on the APX is off. Do not perform any operations until the system is completely shut down.
- When multiple battery systems are used in parallel connection, you only need to press the start key of one module to start the system.

Service and contact

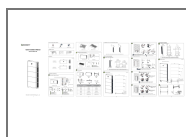
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- 4-13/F, Building A, Sino-German (Europe) Industrial Park,
- Hangcheng Ave, Bao'an District, Shenzhen, China
- +86 755 2747 1942
- service@ginverter.com
- W: www.ginverter.com.



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ower Module Battery Module, Module Battery Module, Battery Module, Module

References

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- [User Manual](#)

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