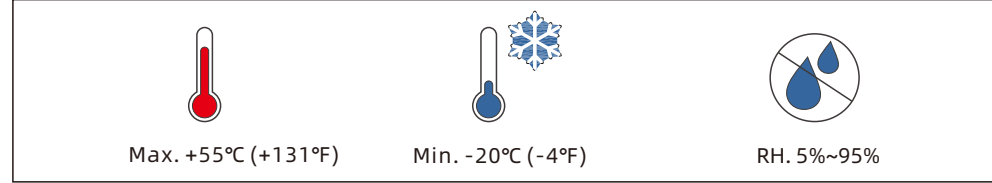


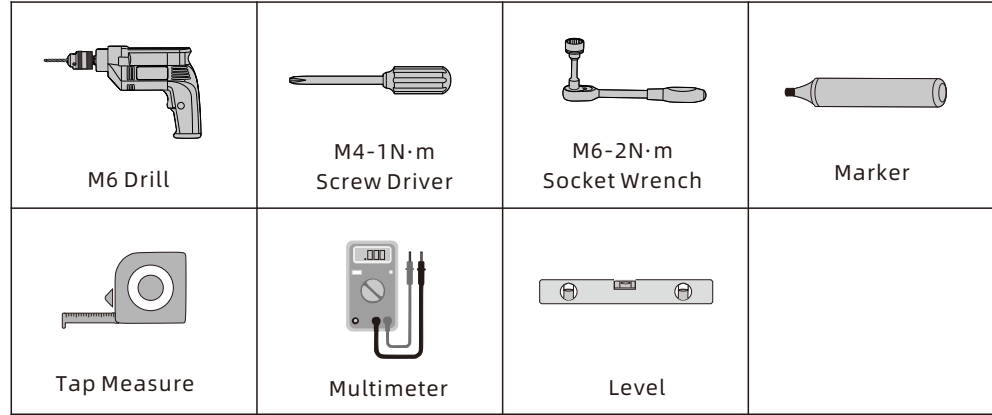
Quick Installation Manual
APX 5.0-30.0M-S3



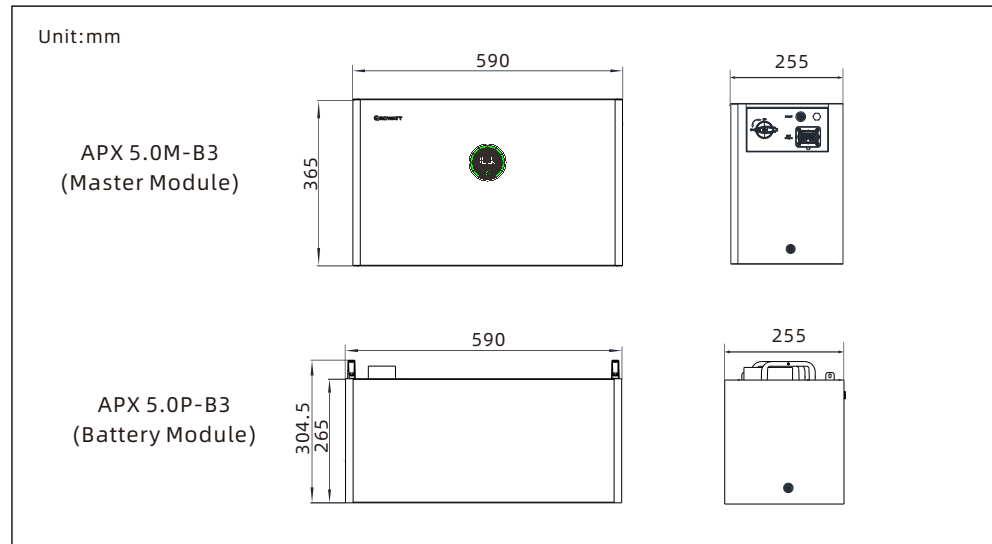
Environment requirements



Installation tools

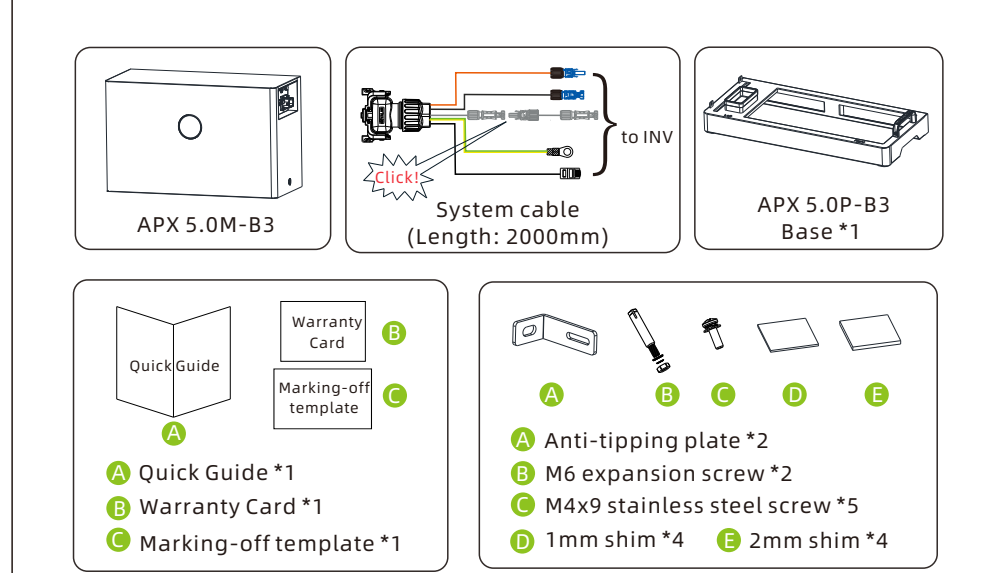


Dimensions

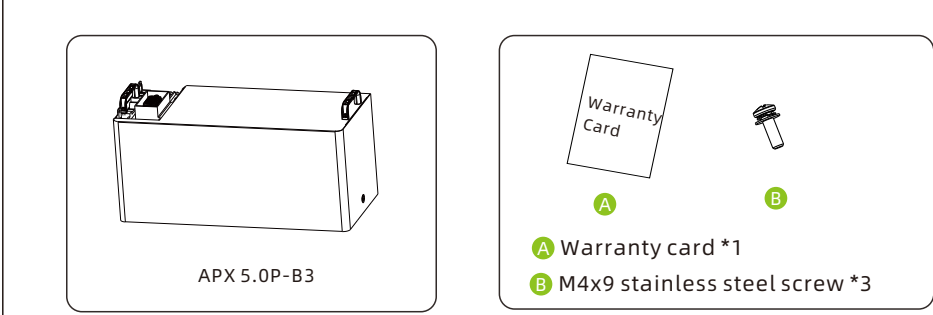


1. Inspection upon delivery

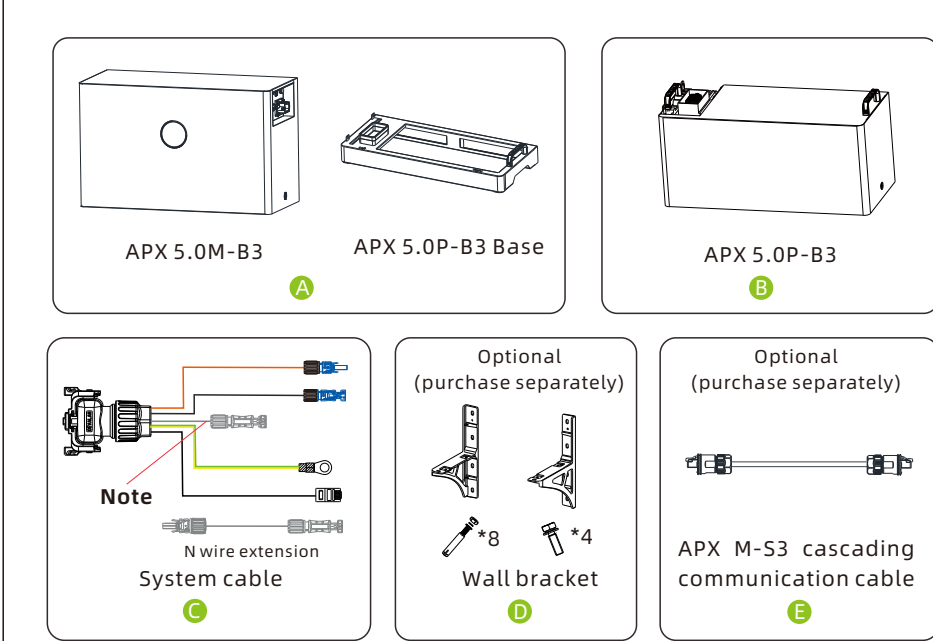
1-1 Check the packing list for the APX 5.0M-B3



1-2 Check the packing list for the APX 5.0P-B3

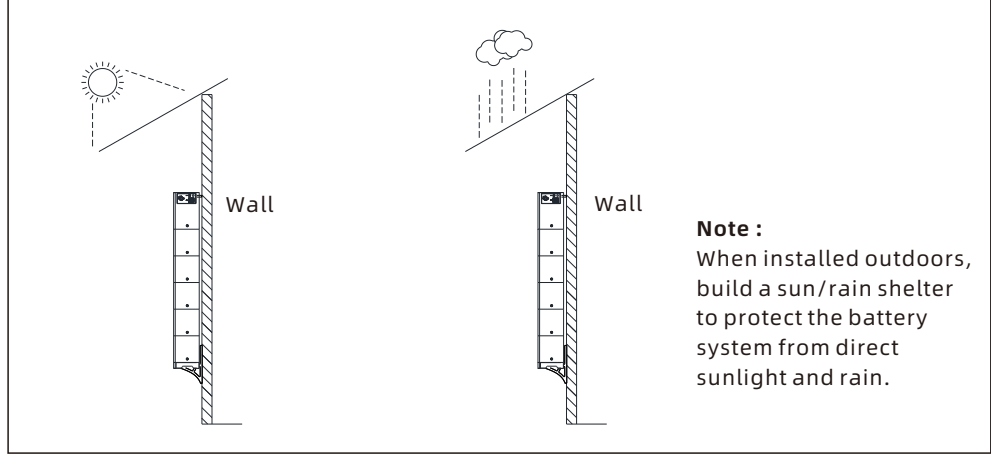


1-3 Check the APX 5.0-30.0M-S3 Battery System of different capacities

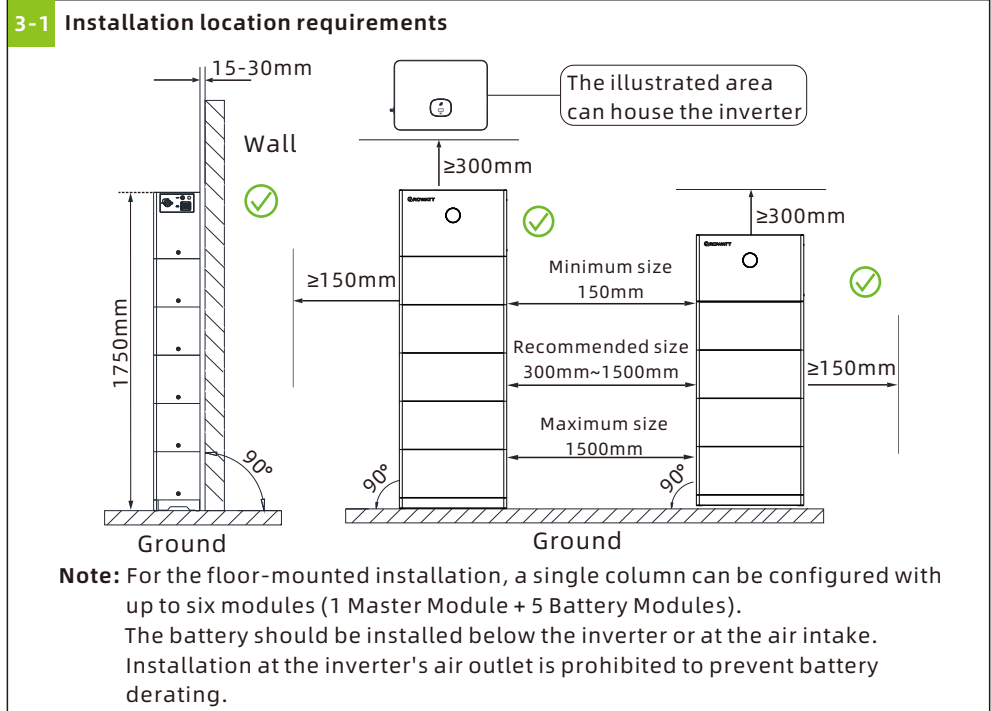


Battery System Capacity	Floor-mounted Installation Compound Mode	Wall-Mounted Installation Compound Mode
5kWh	A+C	A+C+D
10kWh	A+B+C	A+B+C+D
15kWh	A+B*2+C	A+B*2+C+D
20kWh	A+B*3+C	A+B*3+C+D
25kWh	A+B*4+C	A+B*4+C+D
30kWh	A+B*5+C	A+B*5+C+D
40kWh	A*2+B*6+C*2+E	A*2+B*6+C*2+D*2+E
50kWh	A*2+B*8+C*2+E	A*2+B*8+C*2+D*2+E
60kWh	A*2+B*10+C*2+E	A*2+B*10+C*2+D*2+E
70kWh	A*3+B*11+C*3+E*2	A*3+B*11+C*3+D*3+E*2
80kWh	A*3+B*13+C*3+E*2	A*3+B*13+C*3+D*3+E*2
90kWh	A*3+B*15+C*3+E*2	A*3+B*15+C*3+D*3+E*2

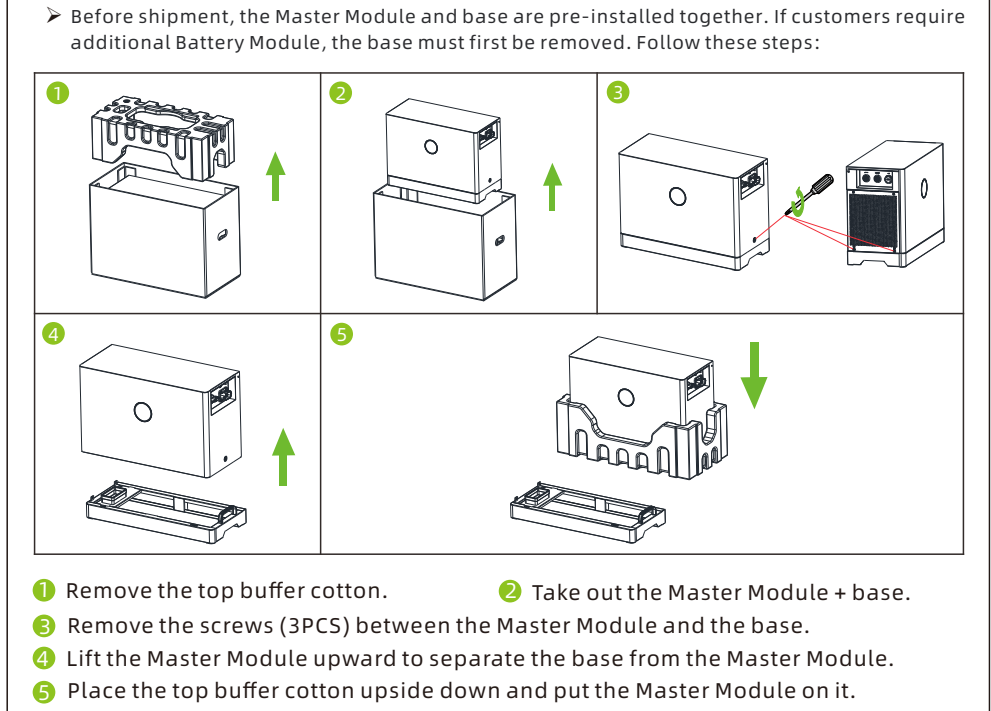
2. Installation environment requirement



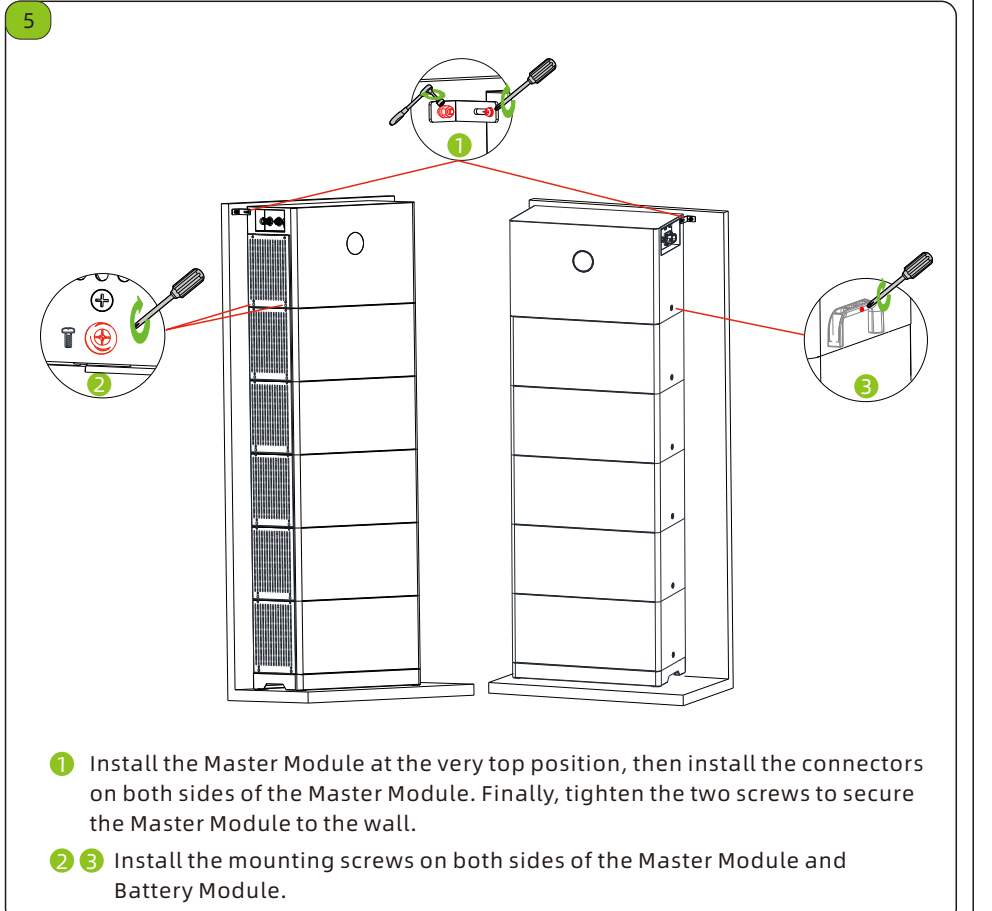
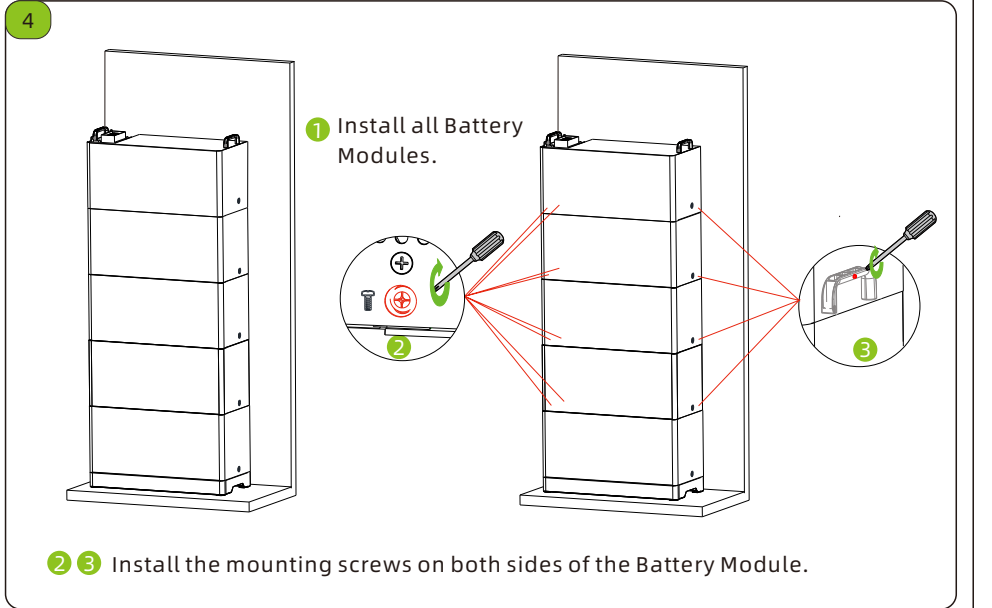
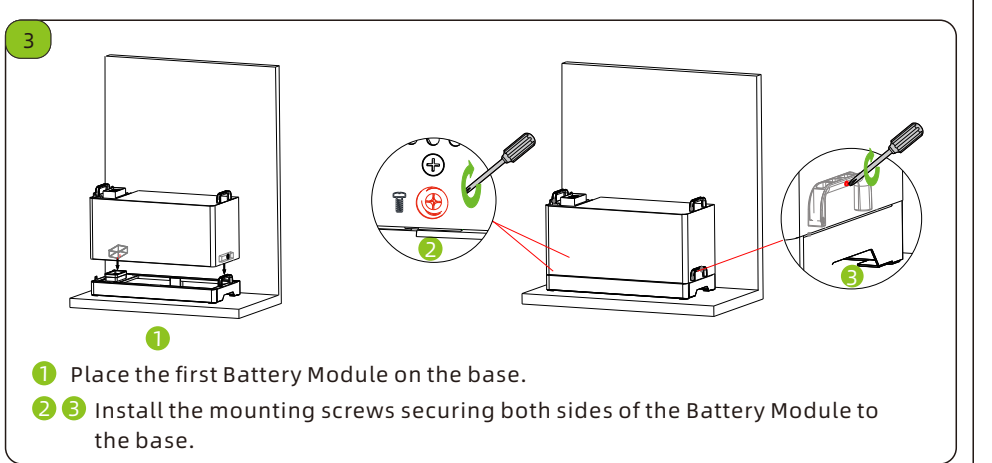
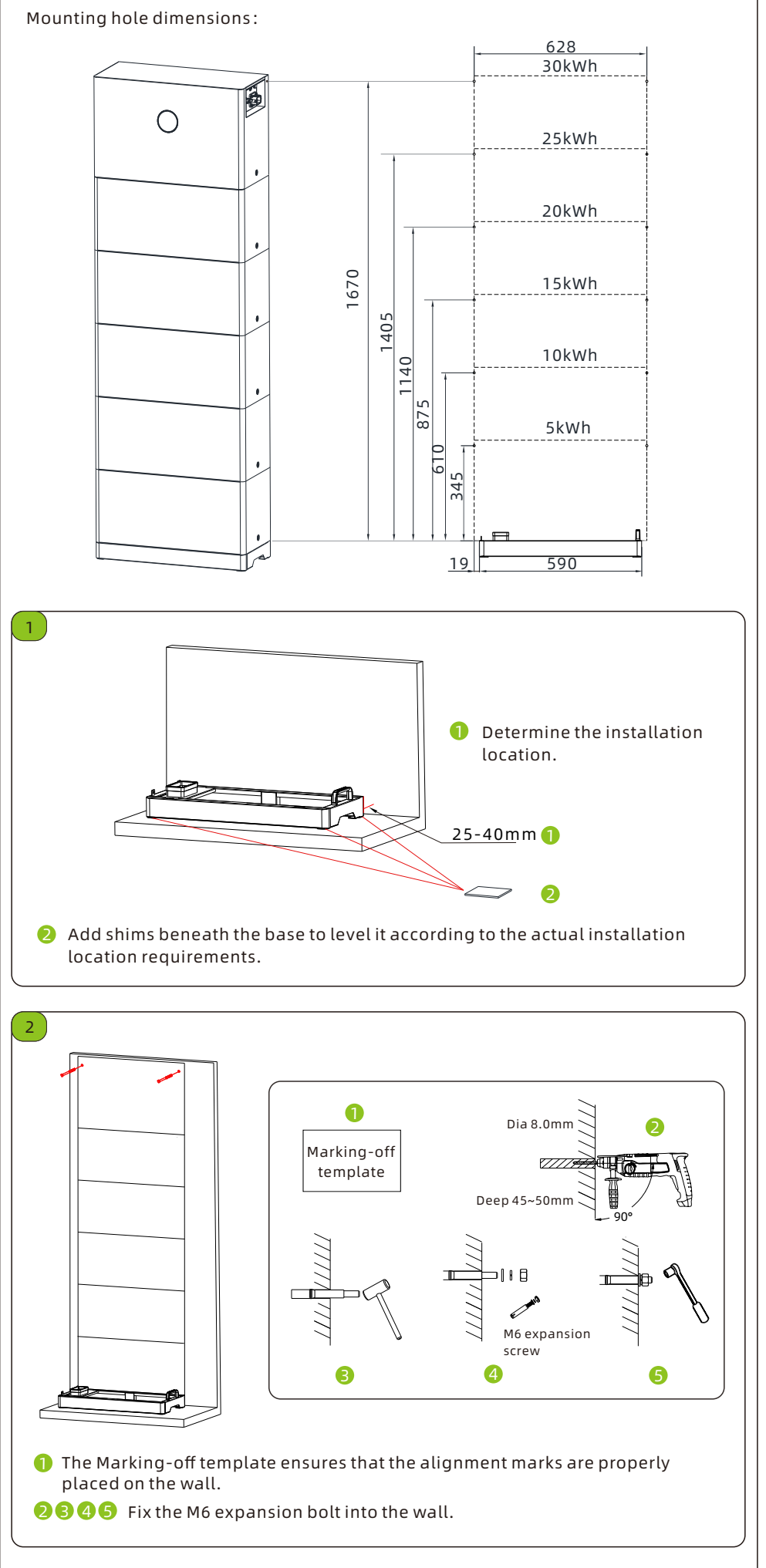
3. Floor-mounted installation



3-2 Preparation work before installation



3-3 Installation procedure



4-1 Installation location requirements

The diagrams illustrate the following requirements:

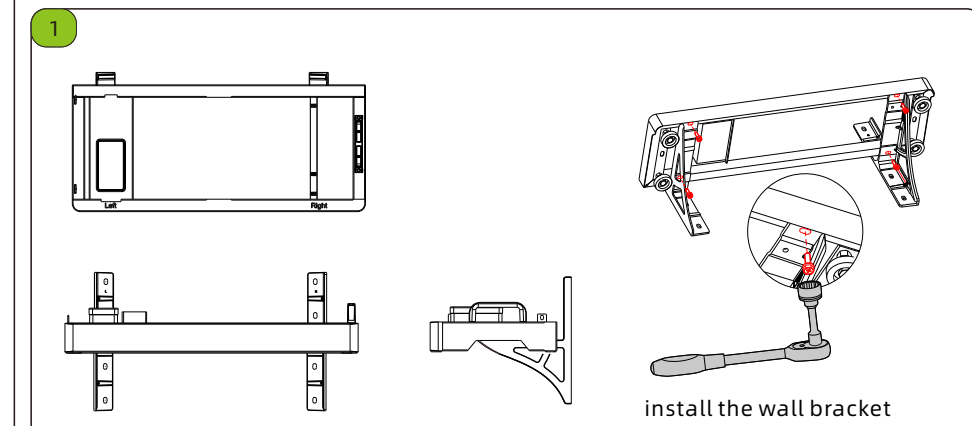
- Wall-mounted installation:** The unit must be installed on a wall, tilted at an angle $-3^{\circ} \leq \delta \leq 3^{\circ}$.
- Ground-mounted installation (Tilted):** The unit must be installed on the ground, tilted at an angle $\delta \leq 3^{\circ}$, and the height from the ground to the bottom of the unit must be $\geq 300\text{mm}$.
- Ground-mounted installation (Upright):** The unit must be installed on the ground, upright, with a height from the ground to the bottom of the unit of $\geq 300\text{mm}$ and a distance from the ground to the top of the unit of $\geq 300\text{mm}$.

Note: For wall-mounted installations, a single column can be configured with up to six modules (1 Master Module + 5 Battery Modules).

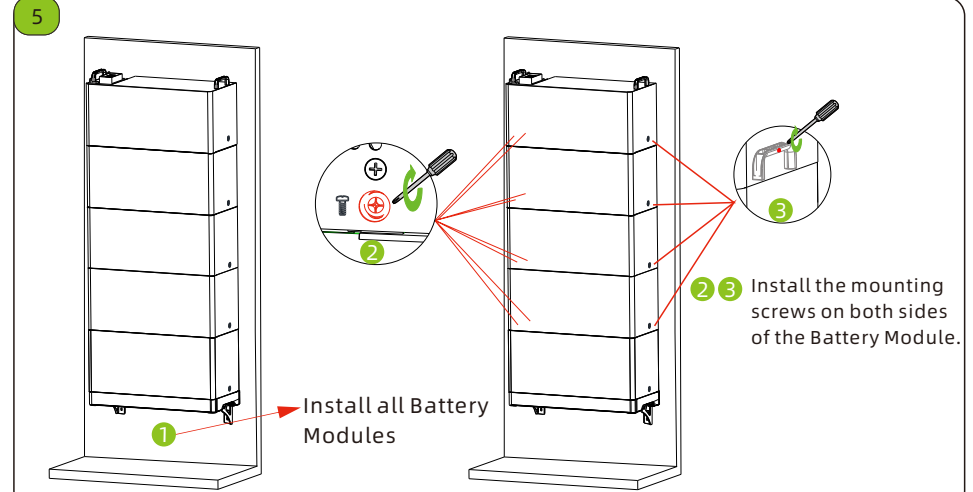
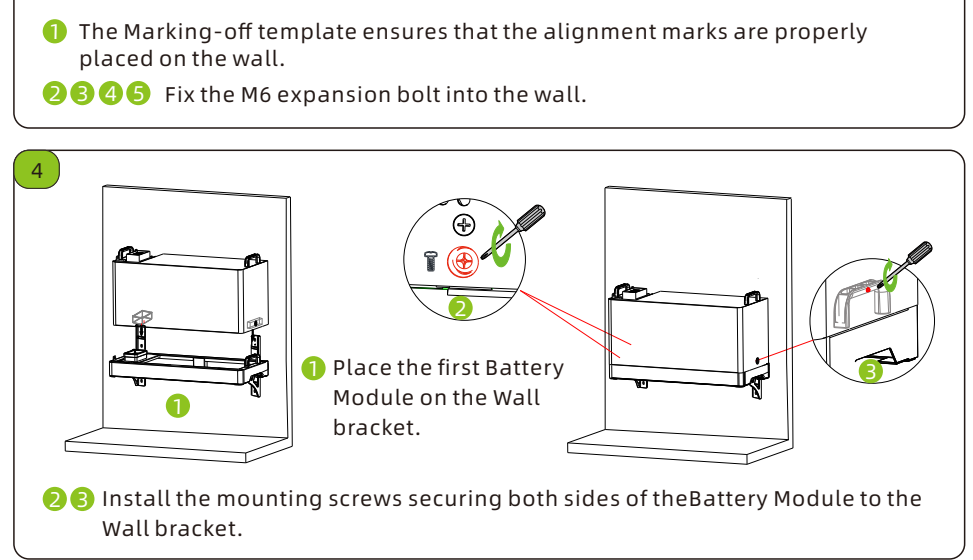
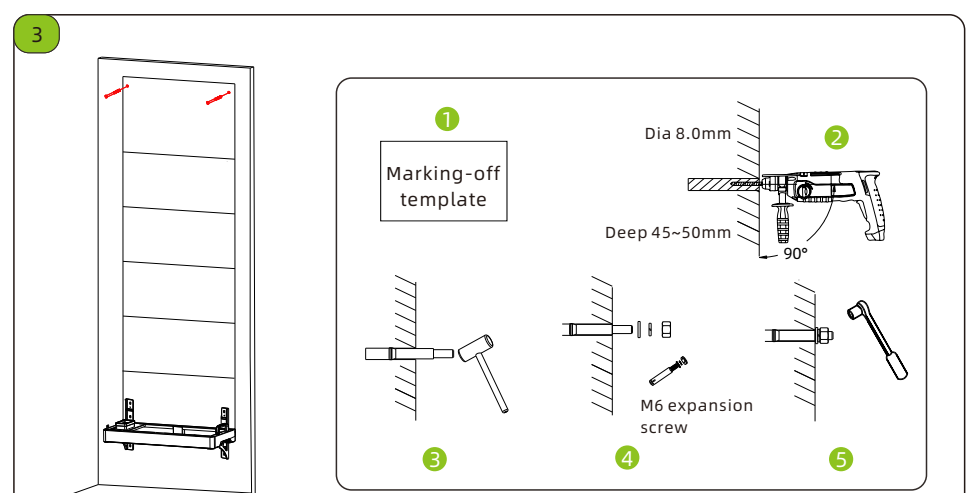
Mounting hole dimensions:

Technical drawing of the E10000 server rack showing mounting hole dimensions. The rack is 1670mm high and 590mm wide. It features six horizontal slots for 10U, 12U, 15U, 18U, 21U, and 24U server units. The mounting holes are spaced 628mm apart. The drawing also shows the rack's base and feet.

Mounting Hole Dimension	Value
Overall Height	1670
Mounting Hole Spacing	628
Mounting Hole Position (from top)	1405, 1140, 875, 610, 345
Mounting Hole Position (from bottom)	19, 345, 610, 875, 1140, 1405
Overall Width	590
Mounting Hole Position (from left)	19, 496, 590
Mounting Hole Position (from right)	80, 93, 80



1 Mark the hole positions. 2 Drilling eight holes. 3 4 Fix the bracket on the wall.



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- 1 Install the Master Module at the very top position, then install the connectors on both sides of the Master Module. Finally, tighten the two screws to secure the Master Module to the wall.
- 2 3 Install the mounting screws on both sides of the Master Module and Battery Module.

5-1 **APX 5.0M-B3 terminal&key description**

The diagram illustrates the front panel of the APX 5.0M-B3 terminal. It features a power input section with a jack (1), a switch (2), and a terminal block (3). A large circular indicator light (4) is labeled 'Run/Alarm'. A red arrow points from the indicator light to a small red dot on the panel. The bottom section contains a large array of terminals. A circular inset shows a close-up of the indicator light, which is labeled 'Run/Alarm' and has a red dot in the center. The indicator light is labeled '5'. The terminal block is labeled '6'. The power input jack is labeled '7'.

No.	Port	Function
1	Link-in	APX M-53 cascading communication input port
2	Link-out	APX M-53 cascading communication output port
3	USB	USB port for inserting a USB flash drive to update the firmware
4	LED	LED status indicator, Steady green: Normal; Steady red: Fault; Permanent darkness: Hibernation
5	DC switch	Turn on/off the power connection from Master Module to inverter
6	Start button	Wake up the Battery Module (Press and hold for over 5 seconds)
7	Power and communication integrated terminal	Power and communication interfaces connected to the inverter (Connect the system cable after removing the cover).

5-2 Battery capacity description

A single APX M-S3 system can connect 0 to 5 Battery Modules parallel to increase the capacity and power of the battery system, and it communicates with the inverter through RS485/CAN communications. At the same time, it supports the cascading of up to 3 APX M-S3 systems. One APX M-S3 system communicates with another APX M-S3 system through CAN communication.

— DC input cable — Communication cable

MOD 3-15KTL3-HU

2.5kW/5kWh

MOD 3-15KTL3-HU

7.5kW/15kWh

MOD 3-15KTL3-HU

15kW/30kWh

MID 29.9-50K-HU

30kW/60kWh (A+B)

MID 29.9-50K-HU

45kW/90kWh (A+B+C)

APX 5.0-30.0M-53			MOD-HU/MID-HU		MIN-XH2 (Rj45 version)		Communication port pinout	
INV	1	INV.EN(-)	COM -BAT	1	BAT.EN-	COM -BAT	1	BAT.EN-
	2	INV.EN(+)		2	BAT.EN+		2	BAT.EN+
	3	M3_CAN2_L		3	CAN.L.M3		3	\
	4	DSP_CAN2_L		4	CAN.L.DSP		4	\
	5	DSP_CAN2_H		5	CAN.H.DSP		5	\
	6	M3_CAN2_H		6	CAN.H.M3		6	\
	7	R5485_B(B)		7	485B.BAT		7	485B/CAN.L
	8	R5485_A(A)		8	485A.BAT		8	485A/CAN.H

The diagram illustrates the connection of the APX M-S3 cascading communication cable. It shows two inverters, labeled 1 and 2, and a main control unit. The cable is connected to the inverters and the main control unit. The connection points are labeled A and B. The cable is connected to the main control unit and the inverters. The connection points are labeled A and B. The cable is connected to the main control unit and the inverters. The connection points are labeled A and B.

Note1: When connecting the communication cable, ensure the protective cover is fully tightened to maintain waterproof integrity. Water damage resulting from improper installation is not covered under the warranty.

Note2: It is strongly recommended not to install a DC circuit breaker between the battery and the inverter. If one must be installed, ensure its rated voltage exceeds 1000V and its rated current exceeds 40A. Never operate the breaker while the system is energized, as this can cause severe equipment damage.

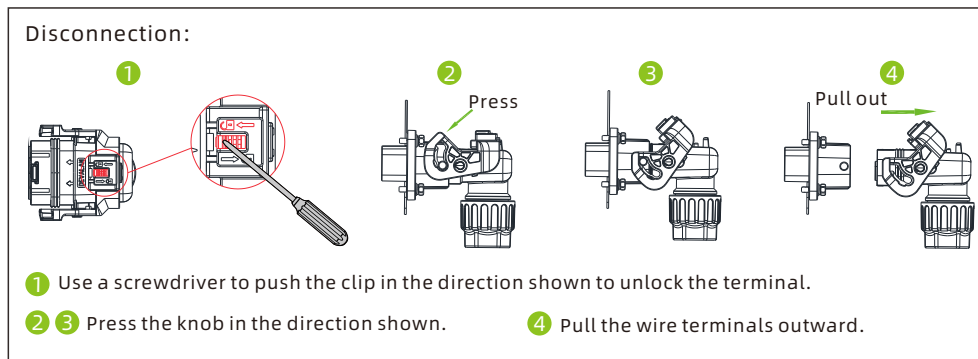
Note3: When the APX M-S3 system is used with a single-phase inverter (such as the MIN-XH2 series), the gray N wire does not need to be connected; instead, seal its connector socket with a dust cap. The N wire extension is also not required.

Note4: When the N line (gray or blue) does not need to be connected to the inverter, the connector plug of the N line must be sealed with a waterproof plug. The extension cable of the N line does not need to be installed.

6. Connection & disconnection of power and communication integrated terminal

Connection:

- 1 Insert the wire terminals into the output terminals of the Master Module.
- 2 Press the knob in the direction shown.
- 3
- 4 Use a screwdriver to push the latch in the direction shown to lock the terminal.



Power on	1. Turn on the DC Switch 2. Press the start button for more than 5s	Rotate → ON OFF Press →
Power off	Turn off the DC Switch (wait for over 90s)	Rotate → ON OFF

Note:

1. Before performing maintenance or inspection work, ensure that the AC circuit breaker and the DC switch of the inverter, as well as the the DC switch on the APX 5.0M-B3 are all disconnected. After powering down the system, wait for 2 minutes and confirm that the LED display light on the APX 5.0M-B3 has turned off. Do not perform any operations until the system is completely shut down.
2. Do not touch the machine while it is running to avoid burns.
3. When cascading multiple APX M-S3 systems, pressing the start button on any Master Module will activate the entire system.
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