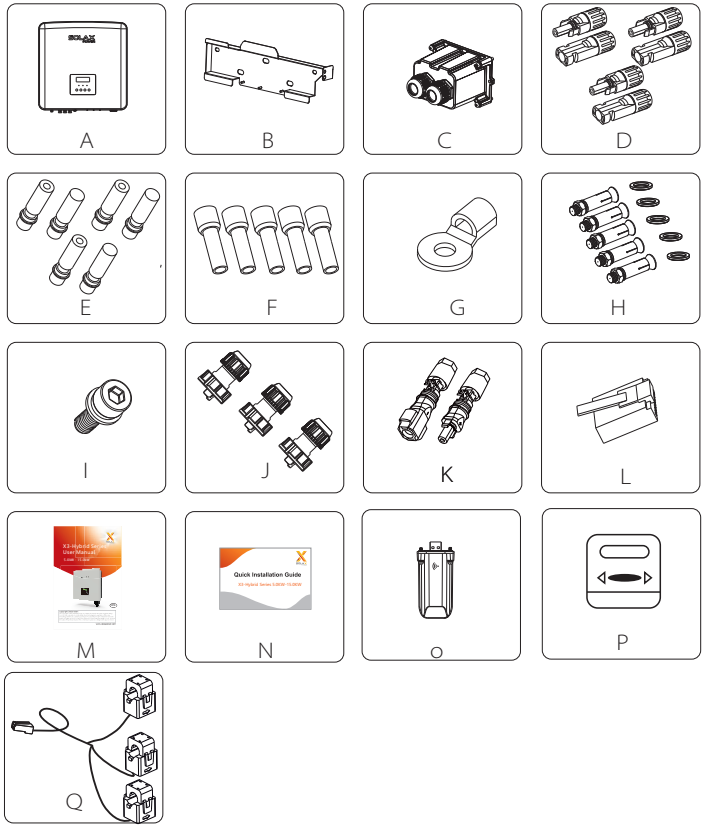
4 Installation

4.1 Check for Transport Damage

Ensure that the inverter is in good condition via transportation. If there is any visible damage such as cracks, please contact the dealer immediately.

4.2 Packing List

Open the package and check the materials and accessories according to the following list.



Number	Quantity	Description
A	1	X3-Hybrid G4 series inverter.
B	1	Bracket
C☆	1	Waterproof connector
D☆	6	PV terminal (positive*2/3 , negative*2/3)
E☆	6	PV pin angle(positive*2/3 , negative*2/3)
F☆	12	10AWG European terminals
G☆	1	OT terminal(inverter grounding)
H	5	(Expansion bolt ,Gasket,Self-tapping bolt)
I	1	M5 inner hexagon bolt
J	3	Communication line adapter (COM/Meter/BMS)
K	2	Battery connection terminals(positive*1 , negative*1)
L	5	RJ 45 terminals
M*	1	Manual
N	1	Quick Installation Guide
O▲	1	Pocket WiFi(optional)
P	1	Meter(optional)
Q	1	CT(optional)

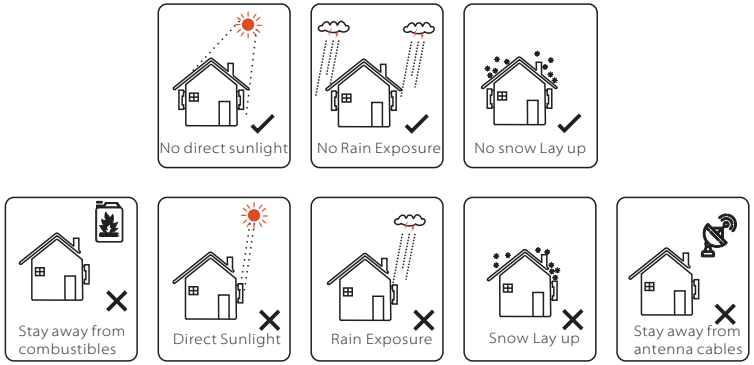
Note: The M series inverter in the accessory package does not include the " C"\" D"\" E"\" F" and "G" accessories. The M series inverter must be used with X3-Matebox.
" L " The inverter in Australia needs to be connected to DRM , which is 1 more communication line adapter than that in other countries.
"O" is the standard part of M-series inverter and the optional part of D-series inverter.
Note: The number of "D" and "E" are different for different power sections. For 5-6kW inverters, the number of positive and negative PV terminal and PV pin angle is 2, 2, 2 and 2 respectively. For 8 - 15kW inverters, the number of positive and negative PV terminal and PV pin angle is 3, 3, 3 and 3 respectively.

4.3 Installation Precautions

The protection level of X3-Hybrid G4 series inverter is IP 65, so that the inverter can be installed outdoors.
Check the installation environment and pay attention to the following conditions when installing:

- Do not expose to strong light.
- Do not touch flammable building materials.
- Do not approach flammable and explosive gases or liquids (e.g. where chemicals are stored).
- Do not touch cold air directly.
- Do not approach TV antenna or cable.
- Do not place in areas above 3000 meters above sea level.
- Do not install in precipitation or high humidity, which may cause corrosion or damage Internal devices.
- Keep the system out of reach of children.

If the inverter is installed in a narrow area, be sure to reserve appropriate space for heat dissipation.
The ambient temperature of the installation site is -35℃~60℃.
The maximum angle range of wall tilt ±5°.
Avoid direct sunlight, rain and snow weather.



4.4 Tool preparation

Tool equipment				
Type	Name	Image	Name	Image
Machine Installation Tools	Hammer drill	Bit Φ10 	Multimeter	DC Voltage Range ≥1100 V DC 
	Torque screwdriver	Crosshead M5 	Socket wrench set (Hexagon)	
	OT terminals press clamp	0.5mm²~6mm² 	Diagonal pliers	
	Utility knife		Multifunction terminal crimping tool (RJ45)	
	wire stripper		Marker	
	Rubber hammer		Tape ruler	
	Crimping Tool		Hexagon keys	
	Euro terminal crimping tool		Spirit level	
Individual Protection Tools	Dustproof Cover		Protective glasses	

Tool equipment				
Type	Name	Image	Name	Image
Individual Protection Tool	Safety gloves		Safety shoes	

Type	Name	Image	Requirement
Equipment Preparation	Breaker		Grid port and Off-grid port wiring section (4.5.2)
Cable Preparation	PV end wire		Dedicated PV wire, line number #12 AWG withstand voltage 1000V, temperature resistance 105℃ fire resistance grade VW-1
	Off-grid end wire		Five-core cable
	Grid end wire		Five-core cable
	Communi-cation lines		Twisted pair with shield
	Battery Cable		Conventional wire
	PE Cable		Conventional wire

4.5 Installation Site Conditions

4.5.1 Installation Carrier Requirements

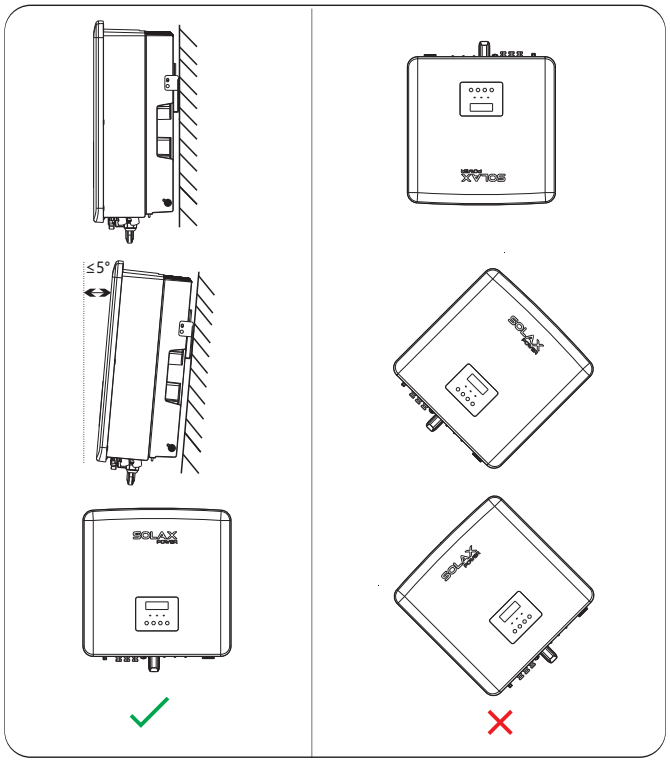
Do not install the inverter near flammable materials.

Please install the inverter on a solid object that can withstand the weight requirements of the inverter and energy storage system.

Please be careful not to install the inverter in the plasterboard wall or similar to the residential places with poor sound insulation, so as not to work with noise and interfere with the residents' life in the morning.

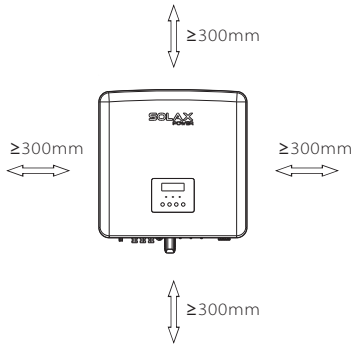
4.5.2 Installation Requirements

Install the inverter at a maximum back tilt of 5 degrees, the inverter can not be tilted forward, inverted, excessive back tilted or side tilted.



4.5.3 Installation Space Requirements

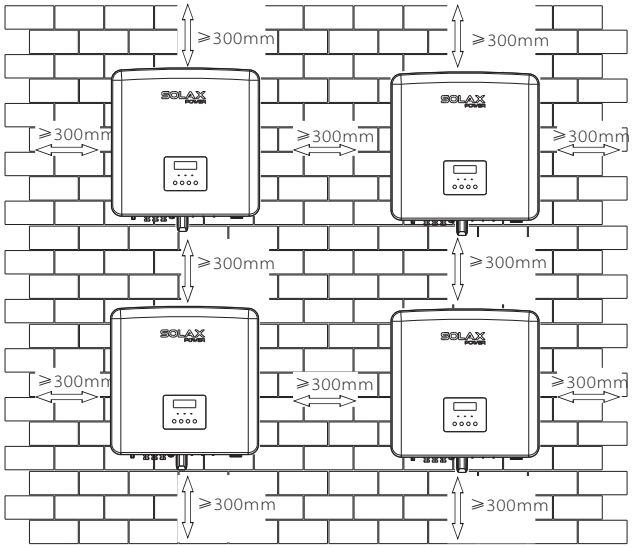
Reserve enough space when installing inverter (at least 300mm) for heat dissipation.



Reserved space dimensions of installation

Position	Min Distance
Left	300mm
Right	300mm
Up	300mm
Down	300mm
Forward	300mm

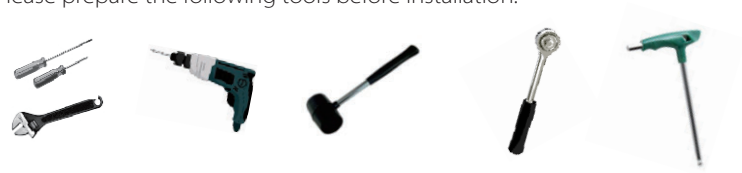
The distance of installation space for multiple inverter is as follows:



4.6 Mounting

➢ Preparation

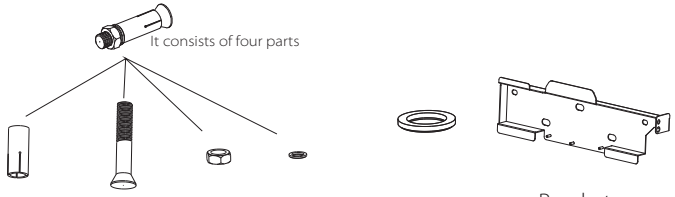
Please prepare the following tools before installation.



Installation tools: screwdriver, wrench, Φ10 drill, hammer, socket wrench set and Hexagon keys.

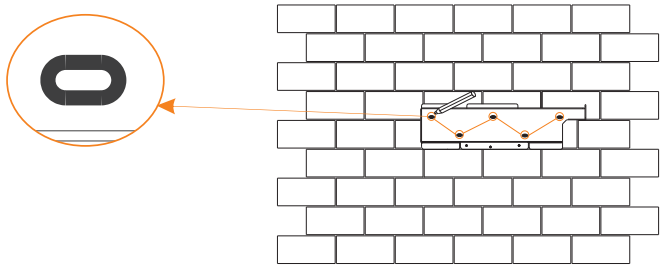
➢ Step 1: Fix the wall bracket to the wall.

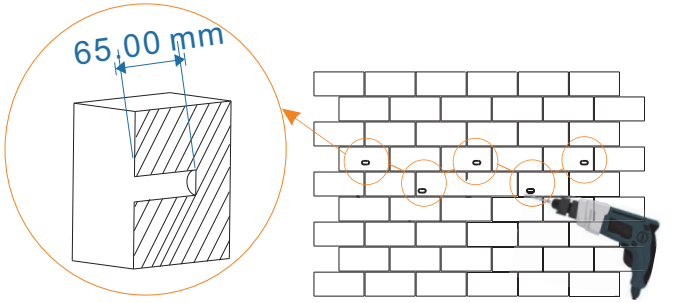
First find the expansion screw and the wall bracket in the accessory bag, as shown below:



Expansion bolts, Tapping screws, nut, Gasket Gasket Bracket

a) Use a marker to mark drilling holes of the bracket on the wall. Drill holes at marked spots with depth of 65mm.



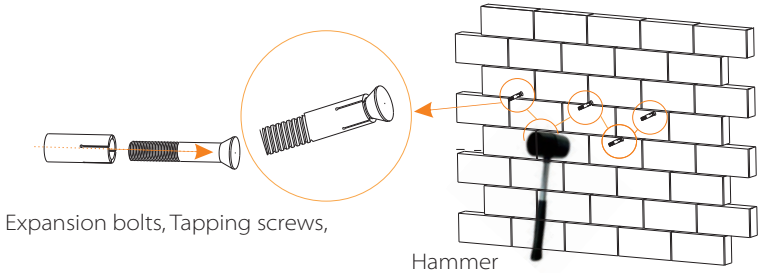


Φ8 Hammer drill

b)

➢ **Step 2: hang the inverter on the bracket**

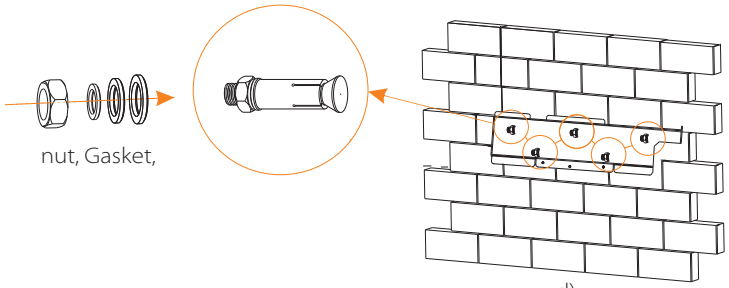
c) Insert expansion bolt into the hole, use rubber hammer to knock the expansion screw bolt into the wall;
d) The bracket is aligned with the screw uses the inner hexagonal wrench to screw the tapping screw until the expansion bolt "bang" is heard.



Expansion bolts, Tapping screws,

Hammer

c)

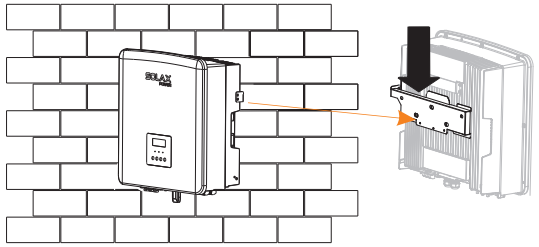


nut, Gasket,

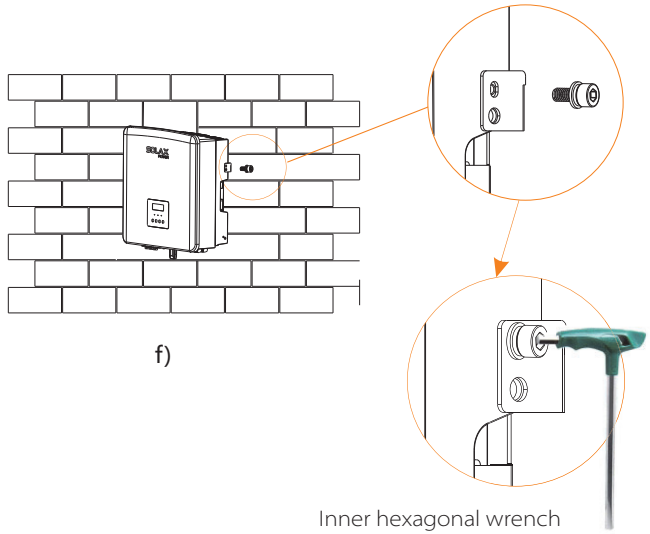
d)

➢ Step 3: Tighten the inverter and bracket

e) Hang the buckle on the inverter to the corresponding position of the backplane;
f) Use the inner hexagonal wrench to tighten the inner hexagonal screw on the right side of the inverter.



e)



f)

Inner hexagonal wrench
(Torque :1.5±0.1 N·m)