4 Installation

4.1 Installation Modes

The inverter can be wall-mounted or support-mounted.

Table 4-1 Installation modes

Installation Mode	Screw Specifications	Description
Wall mounting	M6x50 stainless steel expansion bolt	Delivered with the product
Support mounting	M6 stainless steel bolt assembly	Prepared by the customer

4.2 Installation Requirements

4.2.1 Site Selection Requirements

Basic Requirements

- The inverter is protected to IP66 and can be installed indoors or outdoors.
- Do not install the inverter in a place where personnel are easy to come into contact with its enclosure and heat sink, because these parts are hot during operation.
- Do not install the inverter in noise-sensitive areas.
- Do not install the inverter near flammable or explosive materials.
- Keep the inverter out of reach of children.
- Do not install the inverter outdoors in salt-affected areas because it will be corroded there and may cause fire. A salt-affected area refers to a region within 500 m of the coast or prone to sea breeze. Regions prone to sea breeze

vary with weather conditions (such as typhoons and monsoons) or terrains (such as dams and hills).

- Install the inverter in a well-ventilated environment to ensure good heat dissipation.
- You are advised to install the inverter in a sheltered area or install an awning over it.

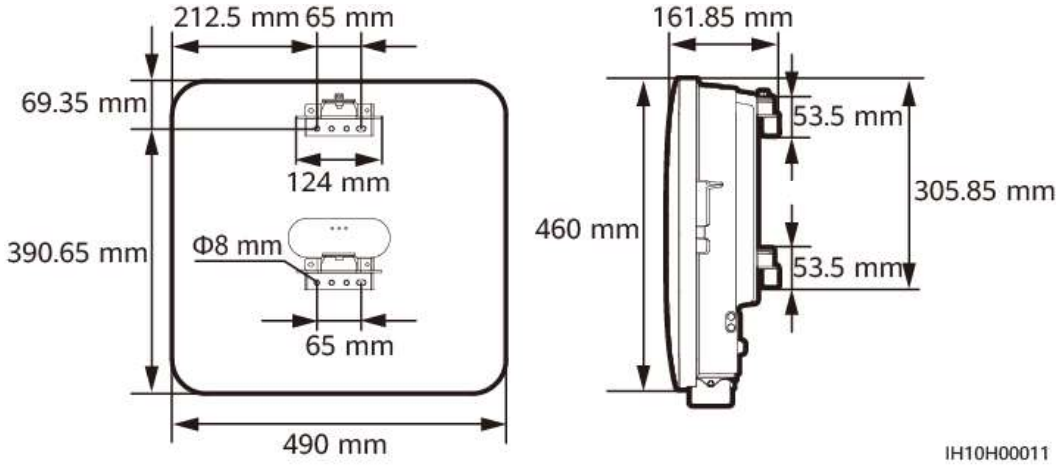
Mounting Structure Requirements

- The mounting structure where the device is installed must be fire resistant.
- Do not install the inverter on flammable building materials.
- The inverter is heavy. Ensure that the installation surface is solid enough to bear the inverter weight.
- In residential areas, do not install the inverter on a drywall or wall made of similar materials which have a weak sound insulation performance because the inverter generates noise during operation.

4.2.2 Clearance Requirements

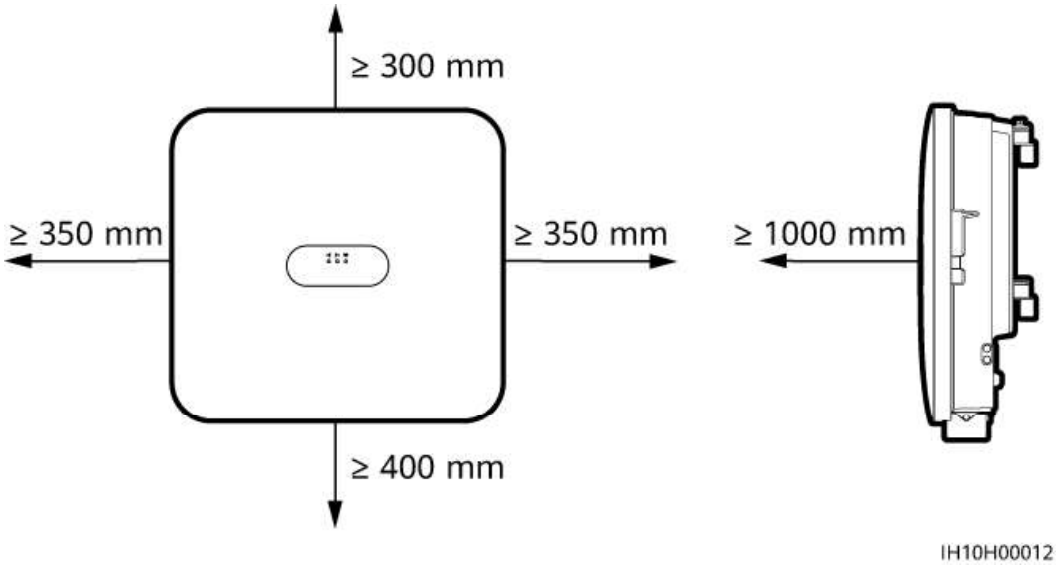
- Dimensions of the inverter and mounting holes

Figure 4-1 Dimensions of the inverter and mounting brackets



- Reserve enough clearances around the inverter to ensure sufficient space for installation and heat dissipation.

Figure 4-2 Clearances



- When installing multiple inverters, install them in horizontal mode if sufficient space is available and install them in triangle mode if no sufficient space is available. Stacked installation is not recommended.

Figure 4-3 Horizontal installation mode (recommended)

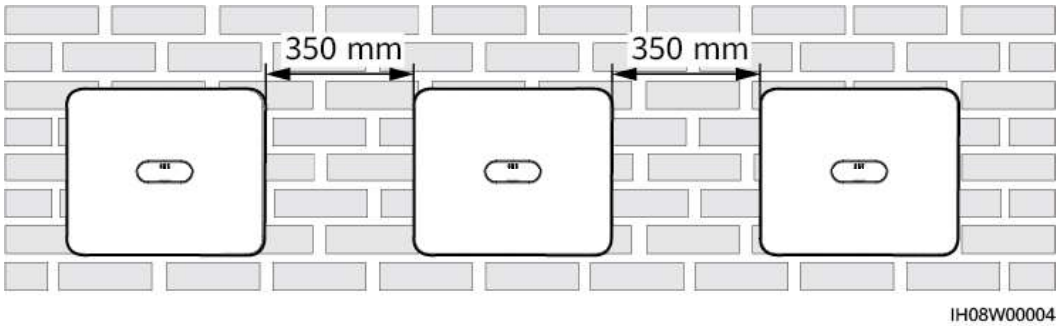
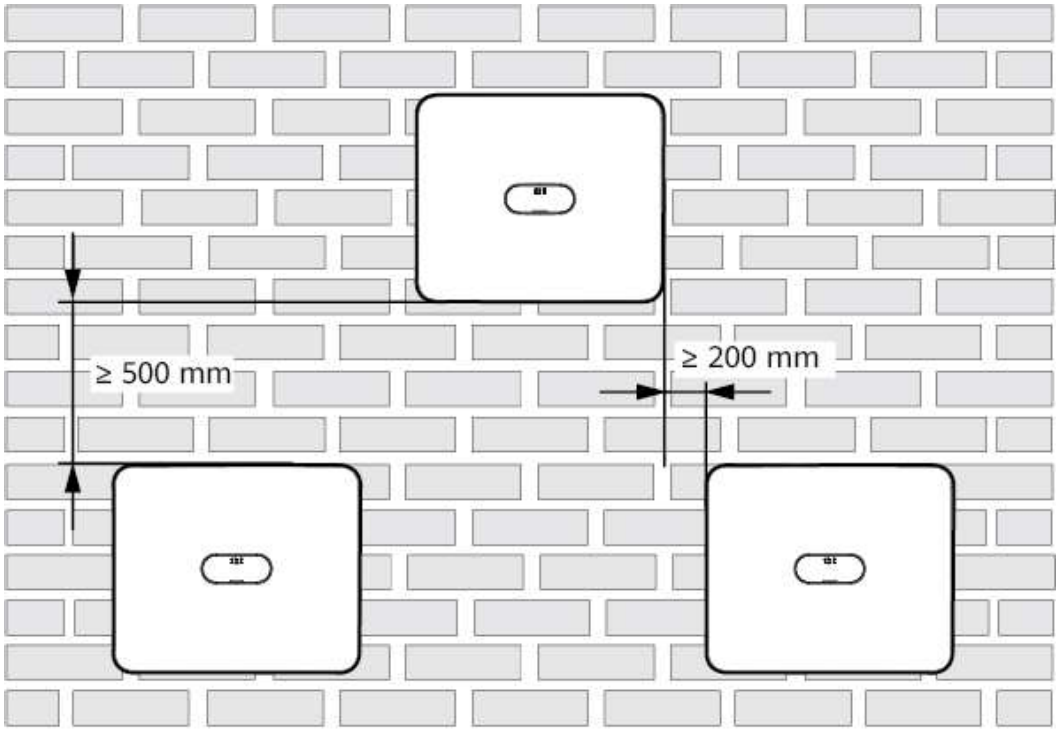


Figure 4-4 Triangle installation mode (recommended)

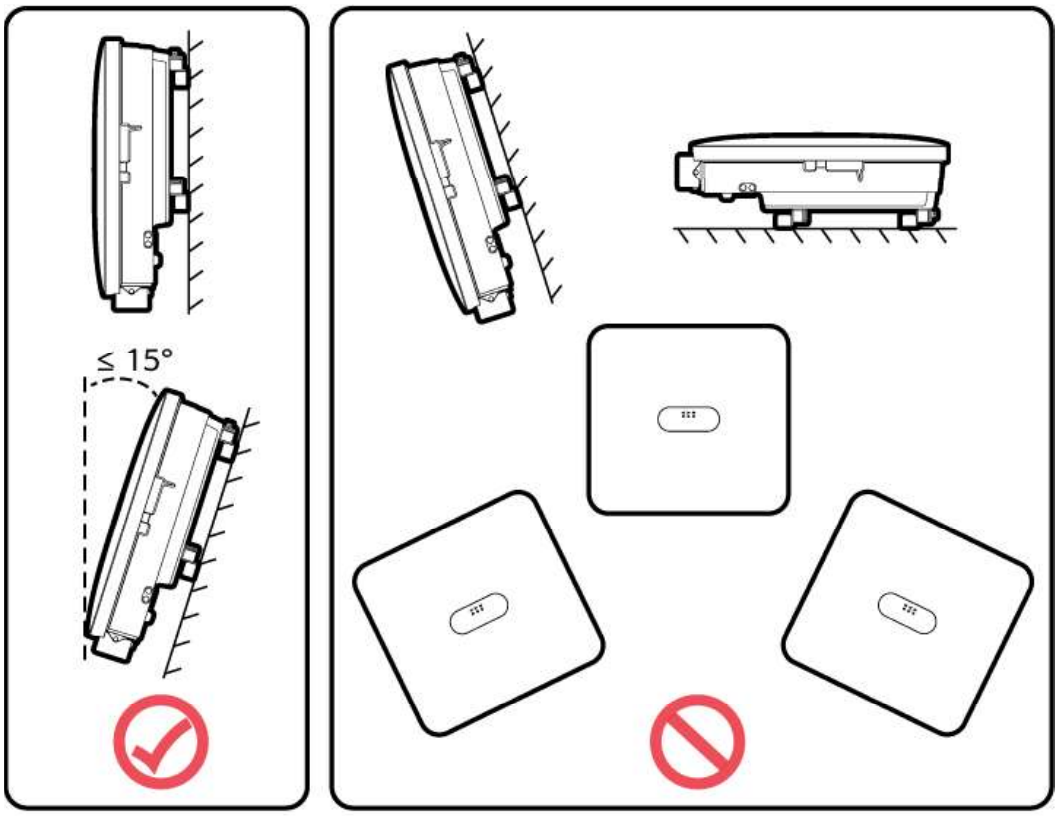


4.2.3 Angle Requirements

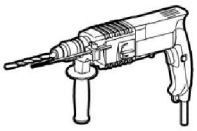
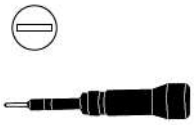
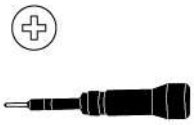
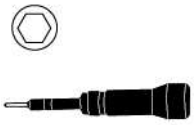
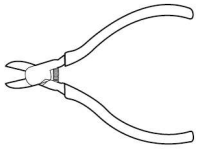
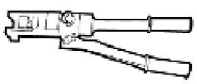
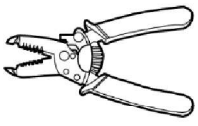
The inverter can be wall-mounted or support-mounted. The installation angle requirements are as follows:

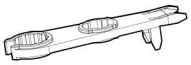
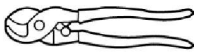
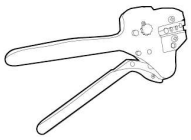
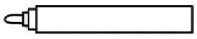
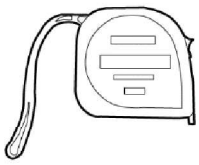
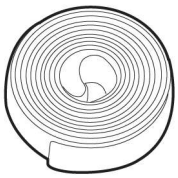
- Install the inverter vertically or at a maximum back tilt of 15 degrees to facilitate heat dissipation.
- Do not install the inverter at forward tilted, excessive backward tilted, side tilted, horizontal, or upside down positions.

Figure 4-5 Installation angle



4.3 Tools

Type	Tool			
Installation tool	 Hammer drill Drill bit: Φ8 mm, Φ6 mm	 Flat-head insulated torque screwdriver	 Phillips insulated torque screwdriver	 Hex insulated torque screwdriver
	 Insulated torque socket wrench	 Diagonal pliers	 Hydraulic pliers	 Wire stripper

Type	Tool			
	 Cable tie	 Removal wrench Model: H4TW0001	 Rubber mallet	 Utility knife
	 Cable cutter	 Crimping tool Model: H4TC0003	 Multimeter DC voltage measurement range ≥ 1100 V DC	 Vacuum cleaner
	 Marker	 Steel measuring tape	 Digital or bubble level	 Cord end terminal crimping tool
	 Heat shrink tubing	 Heat gun	-	-
Personal protective equipment (PPE)	 Insulated gloves	 Protective gloves	 Dust mask	 Safety shoes

Type	Tool			
	 Safety goggles	-	-	-

4.4 Checking Before the Installation

Checking Outer Packing

Before unpacking the inverter, check the outer packing for damage, such as holes and cracks, and check the inverter model. If any damage is found or the inverter model is not what you requested, do not unpack the device and contact your dealer as soon as possible.

NOTE

You are advised to remove the packing materials within 24 hours before installing the inverter.

Checking Deliverables

NOTICE

After placing the equipment in the installation position, unpack it with care to prevent scratches. Keep the equipment stable during unpacking.

After unpacking the inverter, check that the deliverables are intact and complete. If any item is missing or damaged, contact your dealer.

NOTE

For details about the quantity of deliverables, see the *packing list* in the packing case.

4.5 Moving the Inverter

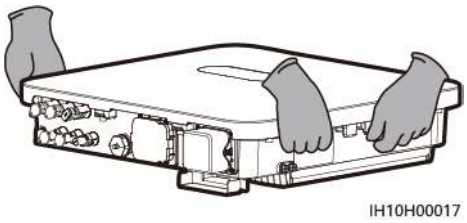
Procedure

Step 1 To move the inverter, two individuals are required, with one positioned on each side. Carefully lift the inverter out of its packaging case and move it to the designated installation area.

CAUTION

- Move the inverter with care to prevent device damage and personal injury.
- Do not use the wiring terminals and ports at the bottom to support any weight of the inverter.
- When you need to temporally place the inverter on the ground, use foam, paper, or other protection material to prevent damage to its enclosure.

Figure 4-6 Moving the inverter



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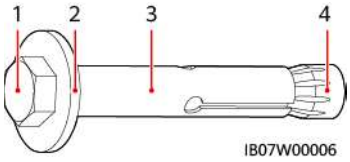
4.6 Installing the Inverter on a Wall

Context

NOTE

- M6x50 expansion bolts are delivered with the inverter. If the length and amount of the bolts do not meet installation requirements, prepare M6 stainless steel expansion bolts by yourself.
- The expansion bolts delivered with the inverter are mainly used for solid concrete walls. For other types of walls, prepare bolts by yourself and ensure that the wall meets the load bearing requirements of the inverter.

Figure 4-7 Expansion bolt structure



(1) Hexagonal bolt (2) Flat washer (3) Sleeve (4) Conical nut

Procedure

Step 1 Install the mounting brackets.

1. Determine the positions for drilling holes using the marking-off template, level the holes using a level, and mark the positions using a marker.

2. Drill holes at the marked positions using a hammer drill and install expansion bolts.

DANGER

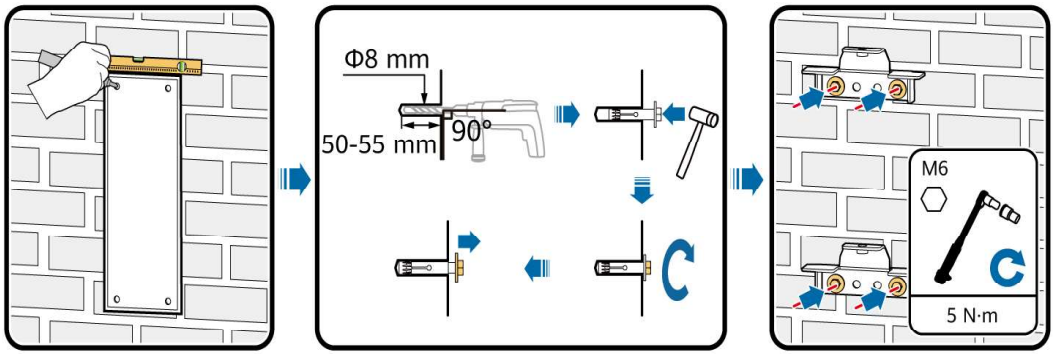
Avoid drilling holes in the utility pipes or cables attached to the back of the wall.

NOTICE

- To prevent dust inhalation or contact with eyes, wear safety goggles and a dust mask when drilling holes.
- Use a vacuum cleaner to clean up dust in and around the holes, and measure the spacing. If the holes are inaccurately positioned, drill the holes again in correct positions.
- Partially tighten the expansion bolts, and then remove the hexagonal bolts and flat washers from the expansion bolts.

3. Secure the mounting brackets.

Figure 4-8 Installing the mounting brackets

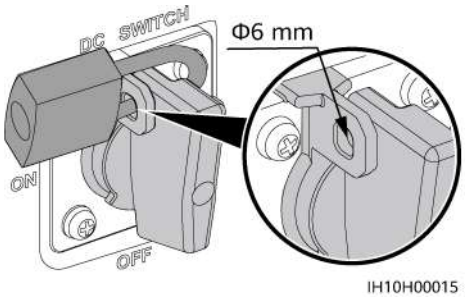


Step 2 (Optional) Install a DC switch padlock.

NOTE

- For models used in Australia, the DC switch padlock needs to be installed according to the local standard to secure the DC switch (DC SWITCH) and prevent incorrect startup.
- The DC switch padlock needs to be prepared by the customer. Select a padlock based on the lock hole diameter (Φ6 mm) to ensure that the padlock can be installed smoothly.
- An outdoor waterproof padlock is recommended.
- Keep the padlock key properly.

Figure 4-9 Installing a DC switch padlock

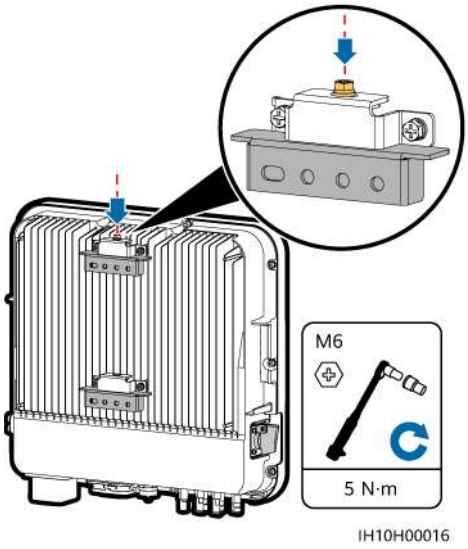


Step 3 Install the inverter on the mounting brackets.

NOTE

The M6x16 hexagonal bolts delivered with the inverter are used to secure the mounting bracket and hanging kit in the upper part.

Figure 4-10 Installing the inverter



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4.7 Installing the Inverter on a Support

Prerequisites

Prepare M6 stainless steel bolt assemblies (including flat washers, spring washers, and M6 bolts) with appropriate lengths as well as matched flat washers and nuts based on the support specifications.

Procedure

Step 1 Install the mounting brackets.

1. Determine the positions for drilling holes using the marking-off template, and then mark the positions with a marker.

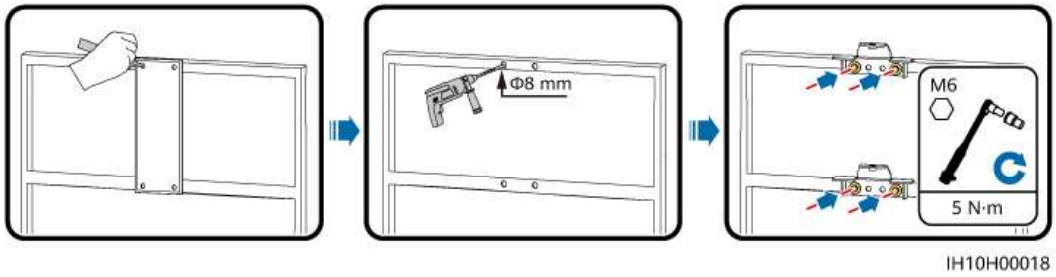
2. Drill holes using a hammer drill.

   NOTE

   You are advised to apply anti-rust paint on the hole positions for protection.

3. Secure the mounting brackets.

Figure 4-11 Installing the mounting brackets

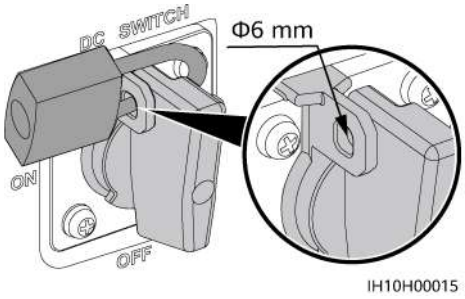


Step 2 (Optional) Install a DC switch padlock.

NOTE

- For models used in Australia, the DC switch padlock needs to be installed according to the local standard to secure the DC switch (DC SWITCH) and prevent incorrect startup.
- The DC switch padlock needs to be prepared by the customer. Select a padlock based on the lock hole diameter (Φ6 mm) to ensure that the padlock can be installed smoothly.
- An outdoor waterproof padlock is recommended.
- Keep the padlock key properly.

Figure 4-12 Installing a DC switch padlock

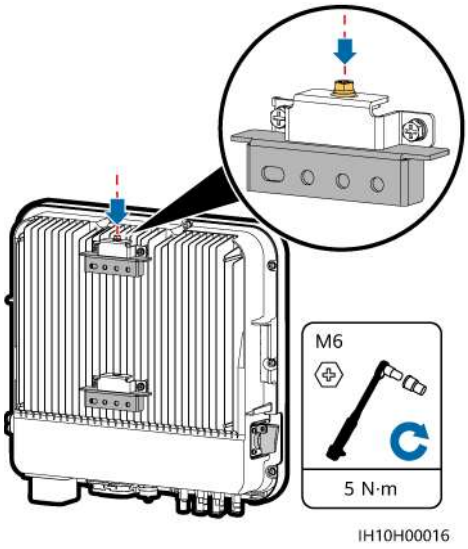


Step 3 Install the inverter on the mounting brackets.

NOTE

The M6x16 hexagonal bolts delivered with the inverter are used to secure the mounting bracket and hanging kit in the upper part.

Figure 4-13 Installing the inverter



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