

4. Installation

4.2 Product Storage

If the inverter is not to be installed immediately, storage instructions and environmental conditions are below:

- Use the original box to repackage the inverter, seal with adhesive tape with the desiccant inside the box.
- Store the inverter(s) in a clean and dry place, free of dust and dirt.
- Storage temperature must be between -40°C and 70°C and the humidity should be between 0 and 100% non-condensing.
- Stack no more than four (4) inverters high.
- Keep box(es) away from corrosive materials to avoid damage to the inverter enclosure.
- Inspect packaging regularly. If packaging is damaged (wet, pest damage, etc), repackage the inverter immediately.
- Store the inverter(s) on a flat, hard surface - not inclined or upside down.
- After long-term storage, the inverter needs to be fully examined and tested by qualified service or technical personnel before using.
- Restarting after a long period of non-use requires the equipment to be inspected and, in some cases, the removal of oxidation and dust that has settled inside the equipment will be required.

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5.1 Select a Location for the Inverter

When selecting a location for the inverter, consider the following:



WARNING: Risk of fire

Despite careful construction, electrical devices can cause fires.

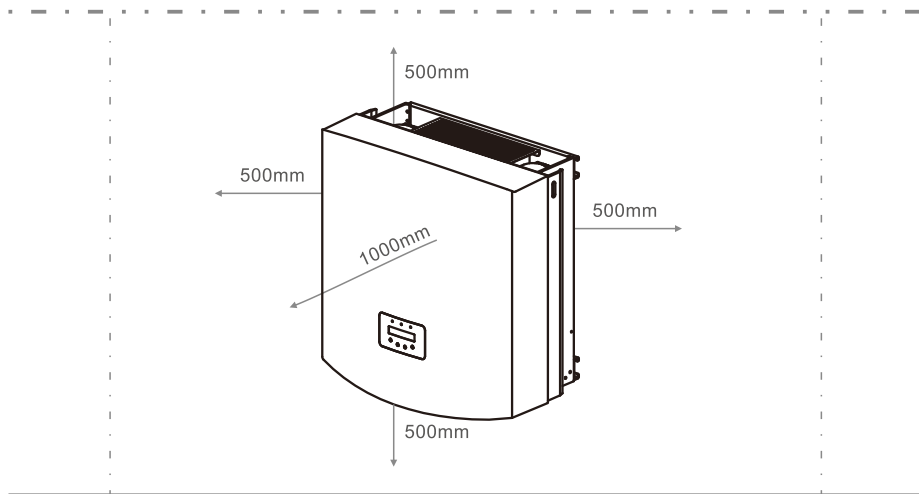
- Do not install the inverter in areas containing highly flammable materials or gases.
- Do not install the inverter in potentially explosive atmospheres.
- The temperature of the inverter heat sink can reach 75C.
- The inverter is designed to work in a temperature range of -25 – 60C ambient.
- If multiple inverters are installed on site, a minimum clearance of 500mm should be kept between each inverter and any other mounted equipment. The bottom of the inverter must be at least 500mm from the ground or floor. See figure 5.2.
- The LED status indicator lights and the LCD on the front panel should not be blocked.
- Adequate ventilation must be present if the inverter is installed in a confined space.
- Inverter is rated IP65. Choose the installation location accordingly.



▲ Figure 5.1 Recommended installation position

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- A sun shade is recommended to minimise direct sun exposure where ambient temperature may exceed 40°C.
- Install on a vertical surface or structure capable of bearing the weight.
- Must install vertically within +/- 5°. If the inverter is tilted from the vertical plane heat dissipation can be inhibited. This may reduce system performance or reduce service life of the inverter.



▲ Figure 5.2 Inverter mounting clearance

- A minimum of 500mm clearance is required top, bottom, left and right of the inverter (isolator enclosures excepted) for air flow and cooling.
- Visibility of the LED status indicator lights and LCD display screen should be considered.



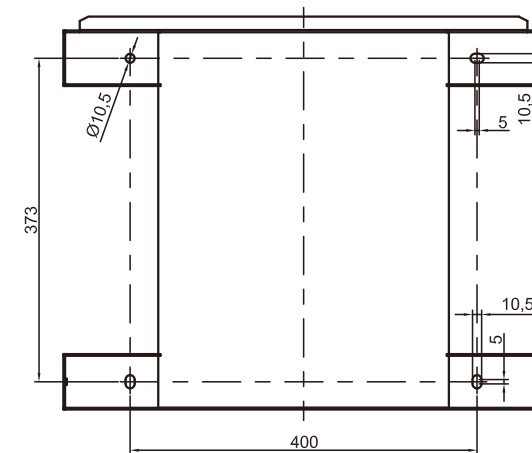
NOTE:

The inverter must be installed out of reach of children.

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5.2 Mounting the Inverter

The inverter can be mounted to the wall or metal strut of module. The mounting holes should be consistent with the size of the bracket or the dimensions shows below.



▲ Figure 5.3 The dimensions of the mounting bracket (in mm)

The inverter should be mounted in a vertical position. The steps of mounting are as follows:

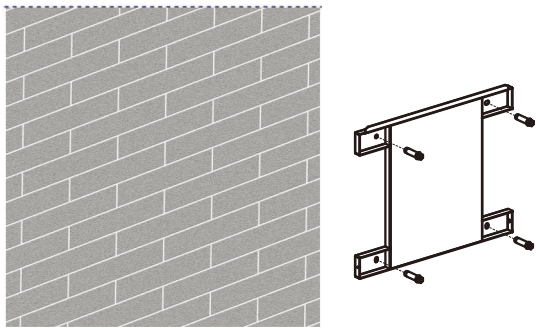
1. According to the figure 5.2, select the mounting height of the bracket and mark the mounting holes. For brick walls, the position of the holes should be suitable for the expansion bolts.
2. MAKE SURE the bracket is horizontal and the mounting holes A, B, and C (in Figure 5.3) are in the correct points. Drilling the holes on the wall according the marks.
3. Using the expansion bolts to fix the bracket to the wall (as shown as Figure 5.4).



WARNING:

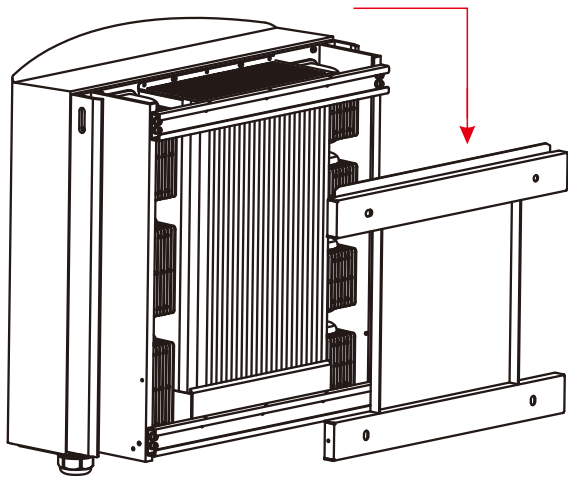
The inverter must be mounted vertically on a vertical wall. Use suitable expansion screws or bolts to attach the bracket to the wall or rack as shown in figure 5.4.

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▲ Figure 5.4 Fix the bracket to the wall

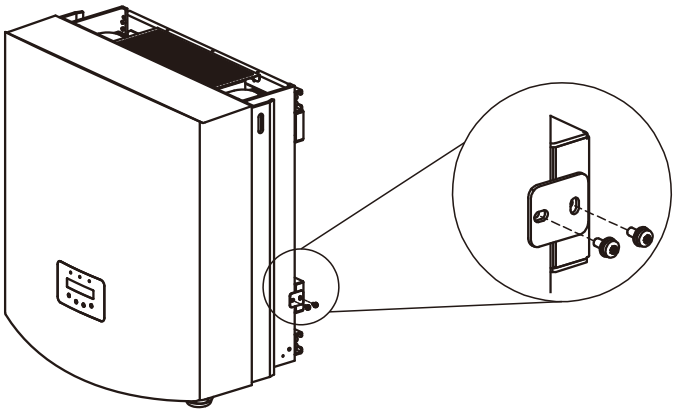
4. Lift up the inverter, and make the slot on the back bracket of inverter align to the lip on the mounting bracket. Then lower the inverter onto the bracket slowly until it is stable (in figure 5.5).



▲ Figure 5.5 Attach the inverter to the bracket

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Use screws in the packaging to fix the inverter to the mount bracket(in Figure 5.6).



▲ Figure 5.6 Fix the inverter

5.3 Electrical Connections

The Inverter is designed with quick-connect terminal port for electrical connection without removing the cover. The meanings of the symbols at the bottom of the inverter (see figure 1.2) are listed in Table 5.1. All electrical installations must be in accordance with all local and national standards.

+	Positive DC input terminal
-	Negative DC input terminal
DC 1- DC4	DC input terminal
DC SWITCH	Switch of DC input terminals (optional)
COM1	Communication port for Wi-Fi or GPRS stick
COM2、 COM3	Rj45 and terminal block for RS485 communication port
GRID	Connecting terminal of the Grid

▲ Table 5.1 Electrical connection symbols

The electrical connection of the inverter must follow the steps listed below:

1. Switch the Grid Supply Main Switch (AC) OFF. Switch the DC Switch OFF.
2. Connect the inverter to PV array.
3. Connect the inverter to the grid.