EG4 12,000/24,000
Solar Air Conditioner

Installation Guide

Version 1.0.0 **October 2022**

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Indoor unit installation location selection

1. There are no obstacles that hinder the air circulation nearby, and the airflow evenly spreads to all corners of the room.
2. Ensure that the indoor unit installation meets the requirements of the installation dimension drawing.
3. The installation place should be easy to drain.
4. The position of the hanger should be able to support more than 4 times the weight of the indoor unit, and there should be no increase in noise and vibration. If reinforcement is needed, it should be reinforced before installation (If the reinforcement is insufficient, the indoor unit will fall and cause injury.)
5. There should be no heat and steam sources nearby.
6. Places close to the power source (dedicated circuit).
7. A place where it is easy to connect to the outdoor unit.
8. Avoid places exposed to direct sunlight and excessive humidity.
9. Do not install in the laundry room (it may cause electric shock).

Note 1: Fully check the following places before installation

1. Fume, steam, flour, etc. in restaurants, kitchens and other places can easily adhere to turbofans, heat exchangers, and drain pumps, reducing the heat exchange effect, causing sprays, water droplets,or causing poor operation of the drain pump.
2. When installing air conditioners in factories and other places, avoid places where the air is filled with cutting oil, cutting powder, and iron filings.
3. Avoid places where flammable gas stays and leaks.
4. Avoid places where sulfurous acid gas and corrosive gas are generated.

Indoor unit installation

1. Fix the wall panel to the wall with nails. As far as possible, choose the position of the fixed nail to bear the weight on both sides of the wall panel.
2. Use your hand to pull the wall panel to ensure a firm fixation.

Connect pipes and drains

1. After determining the position of the pipe hole, drill an outwardly inclined hole.
2. In order to protect the piping and cables through the wall holes from damage, and to avoid damage in the hollow wall, all pipes must be installed Indoor/outdoor.
3. The highest position of the wall hole cannot exceed the bottom surface of the air conditioner. If the height of the wall hole does not meet the requirements, the hole must be reopened to prevent the product from leaking.

Outdoor unit installation location selection

1. The installation point must be well ventilated so that the machine can inhale and exhaust enough air.
2. The installation place is sufficient to bear the weight of the outdoor unit,and can isolate noise and vibration.
3. Avoid direct sunlight, if necessary, it is better to support a sunshade.
4. The installation place must be able to exclude rainwater and defrosting water.
5. The installation place must ensure that the machine will not be buried in snow.
6. The installation place must ensure that the air outlet will not face the strong wind.
7. Ensure that the wind and operating noise of the unit will not affect neighbors.
8. The installation location must not be affected by garbage and oil mist.

Outdoor unit installation

1. Arrange drainage channels to ensure the smooth discharge of condensate.
2. The strength and level of the foundation should be checked when implementing scheduled operations to avoid vibration and noise.
3. Fix the outdoor unit firmly with foundation bolts.
4. The appropriate length of the foundation bolt is 20mm beyond the surface of the foundation.
5. The foundation should avoid a shape with only four corners to support the outdoor unit.

Condensate drain

1. During the heating operation of the air conditioner, the condensed water formed by the outdoor unit and the defrosting water generated during defrosting can be drained to a suitable place through the drain pipe. Installation method: Clip the water outlet into the hole of the chassis as shown in the figure, and then connect the drain pipe to the water outlet to lead the condensate and defrosting water to a proper place for discharge.

Piping Installation

1. Please blow with nitrogen or air before connection to remove the dust in the tube.
2. Please set the pipeline according to the direction of the pipeline, but do not repeat the operation of bending and straightening at the same position for more than 3 times.(This will harden the tube).
3. After the piping is bent, align the center of the joint (piping interface) of the indoor unit and the center of the piping, and tighten it firmly with a two-handed wrench.

   NOTE: Before tightening the flared nut, please apply a thin layer of refrigerating oil on the inner and outer sides of the flared part.

   NOTE: For the tightening torque of the flared nut and the skill of using the double wrench, please refer to the figure and table below. If the nut is tightened Too tight, the flared nut will break and cause leakage.
4. Connect to the piping interface on the outdoor unit.
5. After the piping is connected, it must be confirmed whether there is refrigerant leakage at the indoor and outdoor joints, and insulation measures must be adopted.

Thermal insulation package

1. The drain pipe and piping must be insulated with insulation materials separately, otherwise condensation or water leakage will occur.
2. Use heat-insulating materials with good heat-insulating properties (heat-resistant 120℃ or higher) to heat-insulate the pipes.
3. After the piping and drain pipes are installed, seal the gaps between the wall holes and the piping, drain pipes, and wires with glue or putty to prevent rain or foreign objects from entering the room and indoor unit, otherwise it will cause a decrease in capacity or water leakage.
4. When the outdoor unit is higher than the indoor unit, bend the pipe to ensure that the lowest point of the pipe is lower than the wall hole to prevent rainwater from flowing into the room or the indoor unit along the pipe.

Refrigerant pipe connection

Connection of piping and indoor unit

1. Remove the copper nut of the indoor unit, align the flared surface of one end of the connecting pipe with the pipe joint of the indoor unit, screw the copper nut onto the pipe joint of the indoor unit and tighten.

Connection of piping and outdoor unit

1. Press the bell-shaped flaring of the piping against the connection heads of the low-pressure valve and the high-pressure valve, and the piping should keep the same axis direction as the connection head of the high and low pressure valve.
2. Gradually tighten the copper nut along the connector, and then tighten the nut.
3. Before putting the refrigerant in the outdoor system into the complete system, make sure that there are no impurities, moisture or non-condensable gas in the system. For this reason, vacuuming or emptying must be performed
4. The length of refrigerant piping will affect the performance and energy efficiency of the unit.Nominal efficiency is tested on units with a pipe length of 5 meters(16.5ft).

Vacuum

1. Confirm that the indoor and outdoor connecting pipes have been tightened when vacuuming.
2. Unscrew the maintenance joint nut of the low pressure valve of the outdoor unit, and connect the composite pressure gauge to the maintenance joint of the stop valve.
3. Connect the vacuum pump to the composite pressure gauge, turn on the composite pressure gauge and the vacuum pump to vacuum the indoor unit and piping to make The absolute pressure after vacuuming is not higher than 50Pa.
4. Close the compound pressure gauge valve, stop the vacuum pump, and keep the pressure for 20 minutes without rising.

Electrical Connections

1. All wiring should be correctly connected according to the circuit diagram, and the grounding wire should be connected firmly and reliably.
2. Do not use wires with connectors in the middle; do not use extension cords or multi-core wires, because these wires can cause heat, electric shock or fire. When the length of the connecting wire is not enough, please contact the seller or customer service center to re-equip a dedicated line.
3. Please straighten out the wires when wiring, so that it is convenient for crimping and crimping, and it will not cause the outlet cover to float.

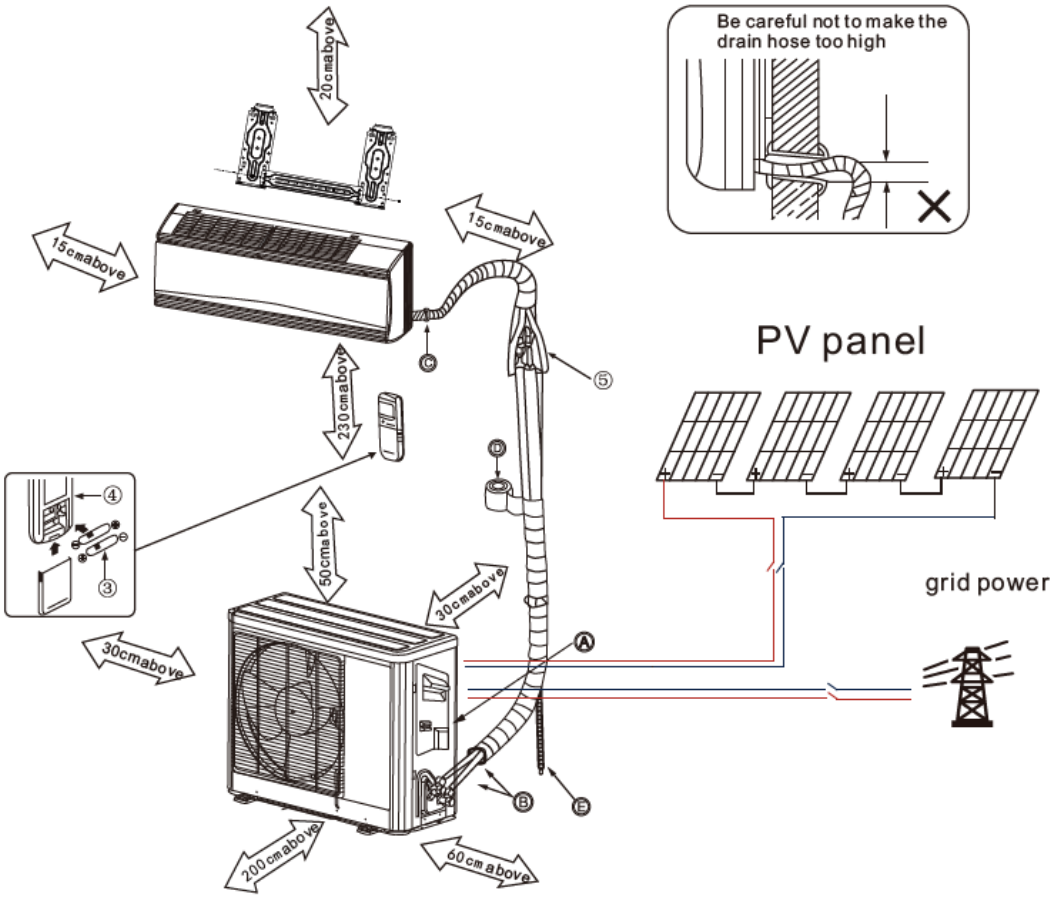
Attention

1. Do not connect the grounding wire to the gas pipe, water pipe, telephone or lightning rod line or the grounding line of other products.
2. Once the indoor unit and outdoor unit are connected to the power supply, do not cut off the power within one minute, (system automatic setting) otherwise it will cause the air conditioner to operate abnormally.

Test Run

1. Turn on the power and turn on the cooling mode;
2. After the compressor has been protected for three minutes, observe whether the cold air is normally blowing out of the room and whether there is abnormal noise in the indoor and outdoor machines;
3. Switch the mode to "heating" mode, observe whether the indoor heating is normally blown out, and whether the indoor and outdoor machines have abnormal noise;
4. Set the mode to "air supply" (high wind) mode and observe whether there is strong wind blowing out of the room;
5. Press other buttons on the remote control to check whether the whole machine is working normally;
6. Switch the mode to "refrigeration" and run for 1h, and observe whether it can drain normally;
7. After confirming that the machine is running normally, press the "on/off" button to stop the test run.

1. on grid air conditioning unit (ACDCBLW) installation diagram



1. off grid air conditioning unit (DC48V) installation diagram