Vertical Fan Coil Unit

User Manual

KMFCL-016-ONLA

KMFCL-016-ONRA

KMFCL-028-ONLA

KMFCL-028-ONRA

KMFCL-034-ONLA

KMFCL-034-ONRA

grupoefcis HAICE CONFORTO E EFICIÊNCIA HAICELAND CONFORTO UNIVERSAL

Foreword

Dear customer, thank you for choosing our fan coil unit products.

- Before installation and use, please read this manual carefully and keep it for future reference.
- For safely use of the unit, please follow the installation and use requirements strictly as outlined in this manual.
- Installation, commissioning, and maintenance must be performed by professional personnel. Please do not operate the unit yourself.
- When handling electrical operations, handing workers must wear anti-static gloves, and wiring must be done according to the wiring diagram. Do not modify the circuit without permission.
- Before opening the electrical control box, turn off the power. Do not remove or move any electrical components on the unit.
- The unit must work within the range specified in the manual.
- It is forbidden to modify the unit or change the parameters without authorization.
- Our company will not be responsible for any personal injury or equipment damage caused by improper installation, commissioning, or failure to follow the guidelines.
- During transportation, the unit should remain stable. Avoid tilting or overturning, as this may damage the unit.

Contents

1.Safety Precautions

	Before operating the unit, carefully read the safety instructions.		
	Before performing maintenance, read the user manual carefully.		Please read the instruction manual carefully before repairing.
	Do not mix electrical and electronic products with other waste. The product can be reused and recycled.		

After unpacking, ensure all parts are intact. If there is any damage, contact the after-sales department promptly；

The fan coil unit must be installed by professionally trained and certified personnel；

This equipment is designed to regulate indoor environmental comfort and must be used solely for this purpose in accordance with its performance specifications；

If the equipment regulates the room temperature too low or too high, it may harm health and waste energy. It is recommended to set the temperature according to your needs when using it；

Do not close the room for extended periods; open windows for ventilation periodically；

This manual is an integral part of the equipment and must be kept properly. If it is lost or damaged, please contact the after-sales service department.

Ensure that no welding slag, iron filings, sand, or other solid impurities flow into the water-side heat exchanger of the unit, as this may damage it；

All repair or maintenance work must be carried out by qualified personnel. Do not modify or interfere with the equipment, as this may cause danger. The manufacturer will not be responsible for any resulting damages；

If the unit is not in use for a long period, the power supply should be disconnected；

Before touching electrical components, ensure that the power has been completely disconnected for more than one minute, and all indicator lights on the wired controller are off. Do not touch switch components with wet hands, as this may result in electric shock.

2. Product Overview

The fan coil unit is a new type of air handling equipment that relies on forced convection to circulate indoor air. The air enters the coil and exchanges heat with the cold or hot water flowing through the coil, keeping the room temperature constant and comfortable.

The unit uses a built-in fan for quiet operation and employs multi-level adjustment technology, providing high cost-effectiveness.

Main features of the product include:

1.Energy-saving: The fan coil unit has a high energy efficiency ratio, significantly reducing energy consumption during long-term use.

2. Low noise: The fan speed is automatically adjusted, ensuring low noise during operation.

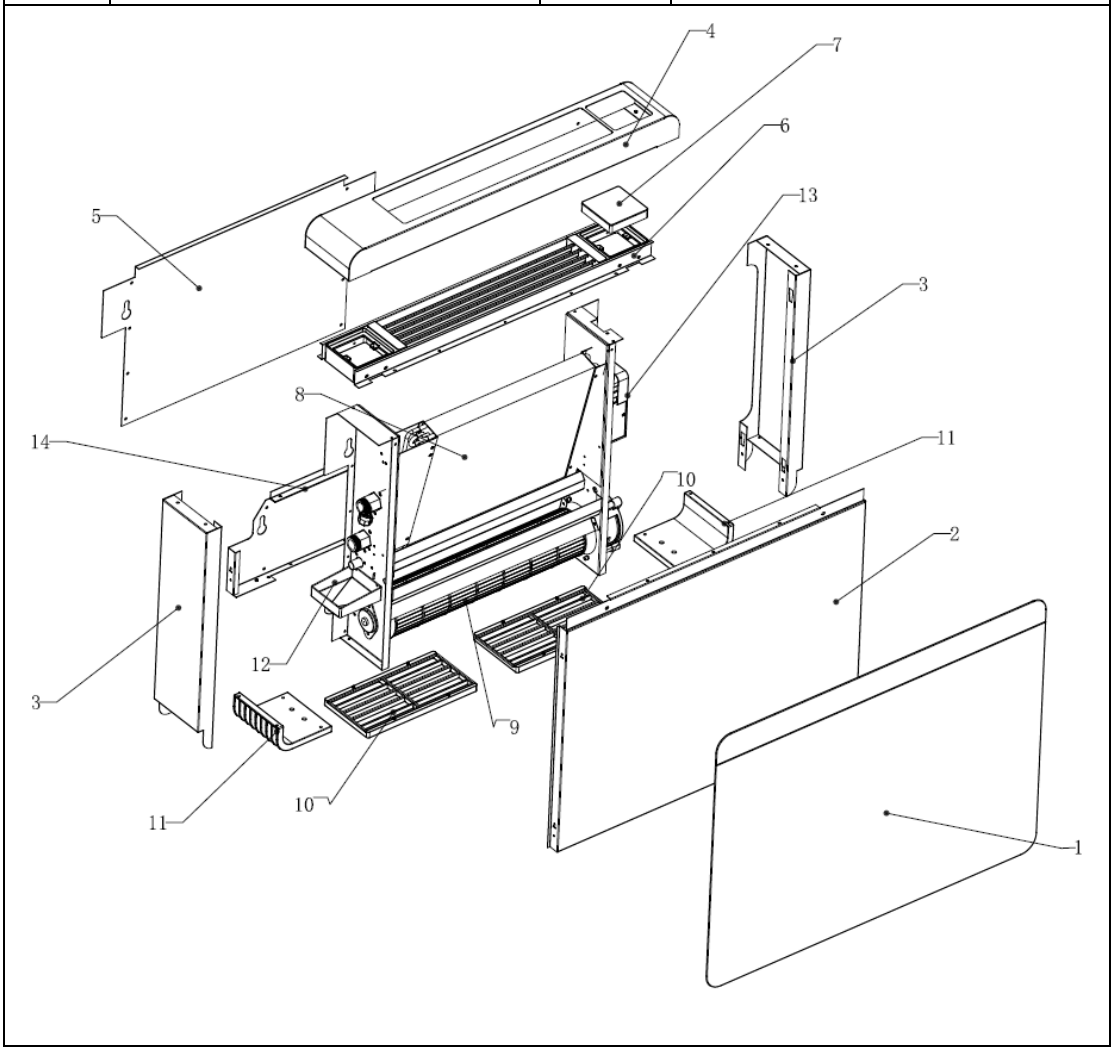
3.Safety: The air-to-water heat exchange system eliminates the risks of leaks and explosions.

4.Convenience: Compact size, attractive appearance, and easy installation and maintenance.

5.Versatility: Suitable for various scenarios, especially where aesthetics and space constraints are important, such as offices, homes, hotels, and apartments.

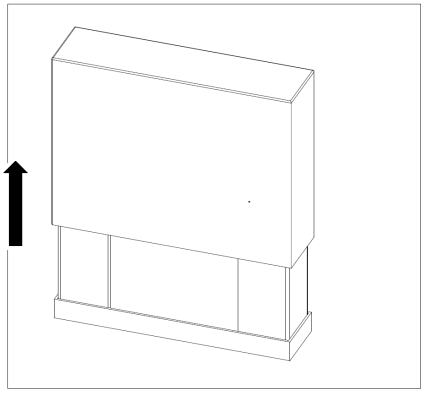
3. Product Components

1	PC Decorative Panel	8	Heat Exchanger
2	Front Panel	9	Fan Blades
3	Side Panel	10	Air Filter Component
4	Top Cover Plate	11	Bottom Decorative Cover
5	Back Plate	12	Condensate Drainage Pan
6	Air Outlet Grille Set	13	Electrical Control Box
7	Wired Controller	14	Base Plate



4. Unboxing and Accessories List

4.1. Remove the packaging belt, then pull the box cover upwards.



4.2. Removing the foam, open the plastic bag and take out the unit.

4.3. Take out the accessory package inside the unit and check the accessories against the list.

Accessory List:

Accessory Parts	Quantity	Application
Plastic Expansion Tube	6	Used for fixing the unit to the wall.
Expansion Screws	6	Used for fixing the unit to the wall.
Drainage Pipe	1	Used for draining condensate water.
Screws	4	Used for securing parts.
Drainage Pipe Clamp	1	Used for fixing the drainage pipe.
Infrared Remote Control (7-Key/Black)	1	Used for controlling the unit.
Nylon Cable Tie, 5mm*300mm (Black)	4	Used for bundling wires.
Installation Template	1	Used for positioning installation holes.

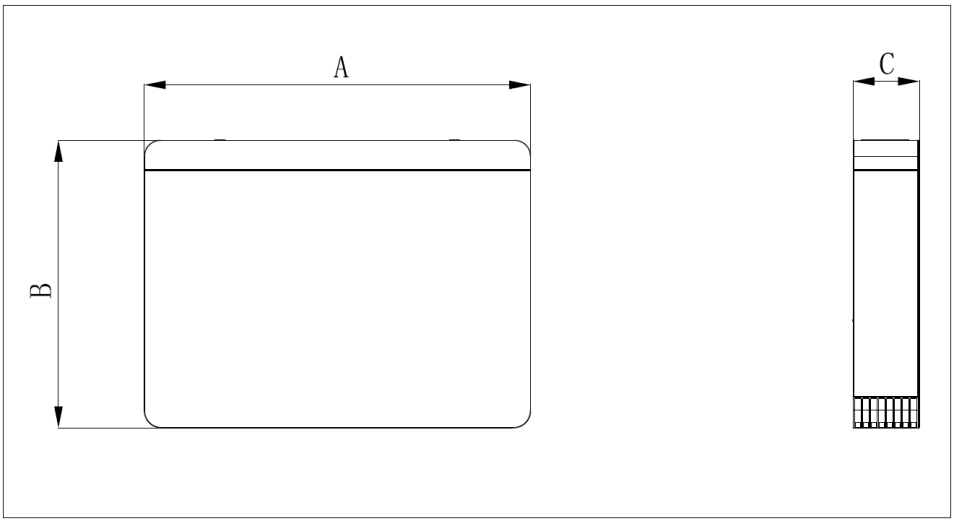
5. Product Performance and Specifications

5.1. Performance Parameters Table

MODEL		KMFCL-016-ONLA KMFCL-016-ONRA	KMFCL-028-ONLA KMFCL-028-ONRA	KMFCL-034-ONLA KMFCL-034-ONRA
Power Supply	V/Hz	220-240V~/50Hz	220-240V~/50Hz	220-240V~/50Hz
Air Flow	m³/h	200~460	220~600	250~800
Cooling Capacity (A27W12)	W	1600	2800	3400
Heating Capacity (A20W40)	W	1600	2800	3400
Heating Capacity (A20/W55℃)	W	2600	4100	4750
Noise	dB	30~40	30~42	30~45
Power Input	W	20	28	40
Unit Size	mm	750×560×130	1000×580×130	1250×580×130
Net Weight	kg	18	24	29

5.2. Unit Dimensions Diagram

Dimension	(mm)	KMFCL-016-ONLA KMFCL-016-ONRA	KMFCL-028-ONLA KMFCL-028-ONRA	KMFCL-034-ONLA KMFCL-034-ONRA
A	mm	750	1000	1250
B	mm	560	580	580
C	mm	130	130	130



6. Unit Installation

6.1. Pre-installation Inspection

• Ensure the model on the unit's nameplate matches the order.

• Check that all accessories listed in the accessory list are included.

• Inspect the unit's exterior for damage. If there is any visible damage, contact after-sales service immediately.

• Confirm the unit's power requirements and ensure that the selected electrical cable meets the usage specifications.

6.2. Choosing the Installation Location

Unsuitable Locations for Installation	Required Installation Conditions
Areas exposed to direct sunlight	The wall where the unit is mounted must be strong enough to bear the weight
Areas affected by high-frequency radio waves	The wall must be completely flat
Areas with corrosive gases	The area must have no obstacles to airflow for the air inlet and outlet
Very humid environments	The installation wall is preferably an exterior wall for condensate drainage
Locations where the unit's sound may cause echo or resonance	The installation location should be convenient for maintenance

6.3. Installation Precautions

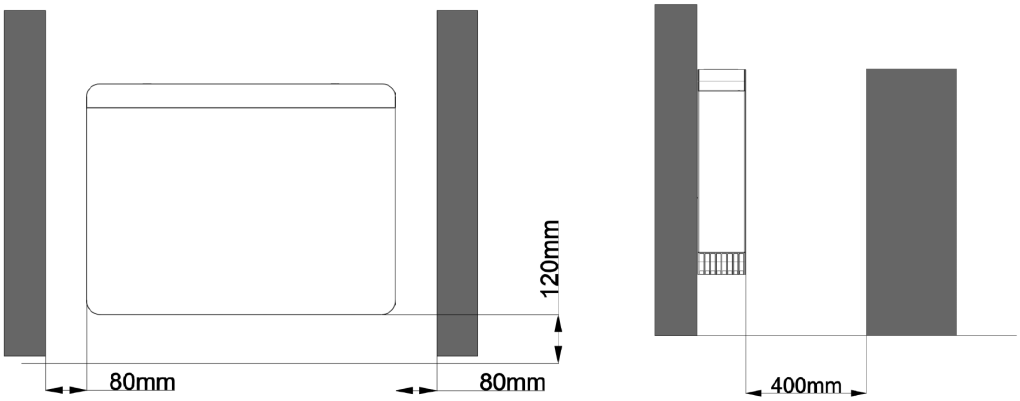
• If the unit is installed on an incomplete or inappropriate wall, it may fall off, causing personal injury or property damage.

• For optimal installation results, please read this manual carefully. Failure to follow the guidelines may result in equipment malfunction or property damage, for which the company assumes no responsibility.

• After installation, peel off the protective film from the front PC decorative panel. If there are any scratches or defects on the surface, contact after-sales service immediately. Do not manually remove the PC panel; the manufacturer is not responsible for any damage resulting from improper handling.

6.4. Installation Distance

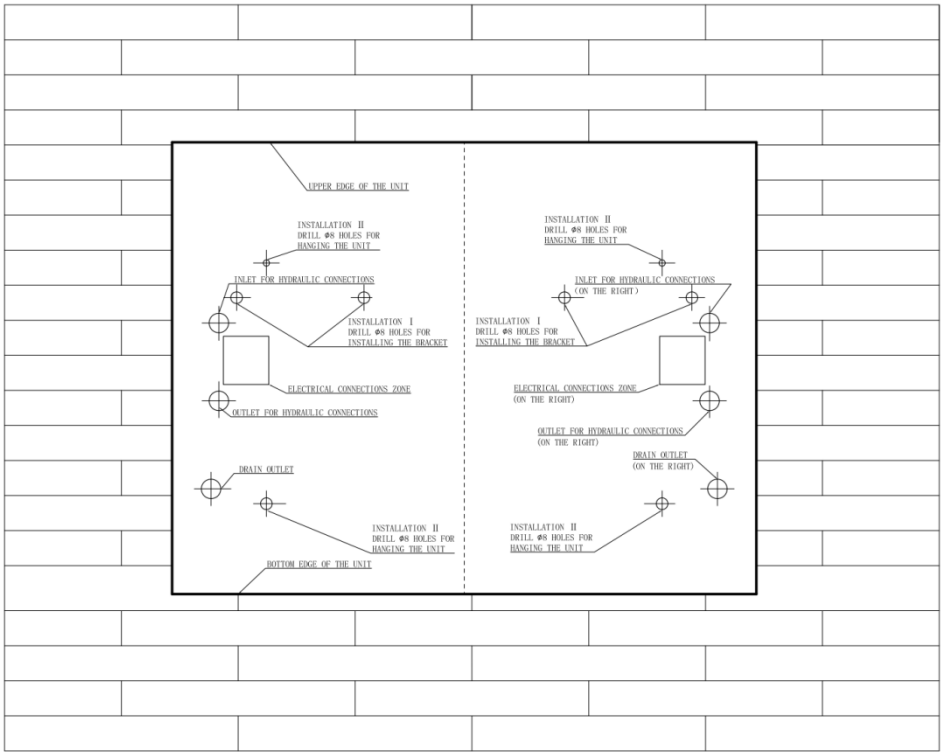
The installation and maintenance buffer zone is shown in the diagram. The specified clearances help prevent airflow obstructions and ensure proper cleaning and maintenance.



6.5. Installation

6.5.1. Install positioning template:

The unit comes with an installation positioning template for marking the installation holes. Fix the template to the wall with tape, ensuring the paper is level. Use a level to assist if needed. Drill holes according to the markings and install the pipes.



6.5.2. Pipe connections:

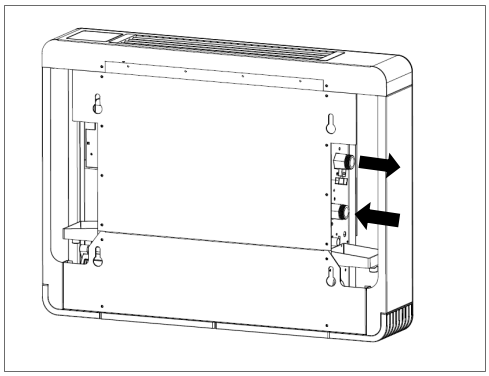
Installation must be performed by professionally qualified personnel. Follow the instructions in this manual. Two installation methods are available, depending on the situation. Choose the appropriate one.

Note:

①Do not overtighten the connections to avoid damaging the joints and the heat exchanger pipes.

②Carefully check the sealing of insulation materials to prevent condensate water from forming and dripping.

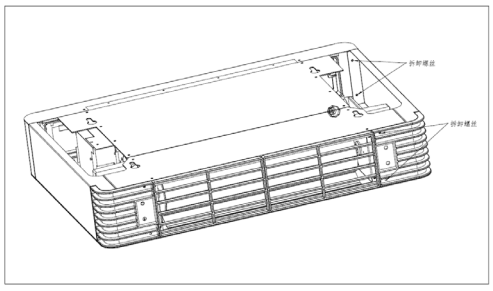
Scenario 1: Install the inlet and outlet water hoses at the unit interface, without an electromagnetic valve or with the valve installed afterward.

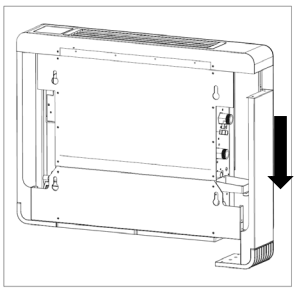


The unit interface uses external G3/4” threads. Please select hoses of the appropriate size for connection. The water inlet and outlet directions are shown in the diagram above, or can be identified based on the labels next to the unit’s connectors.

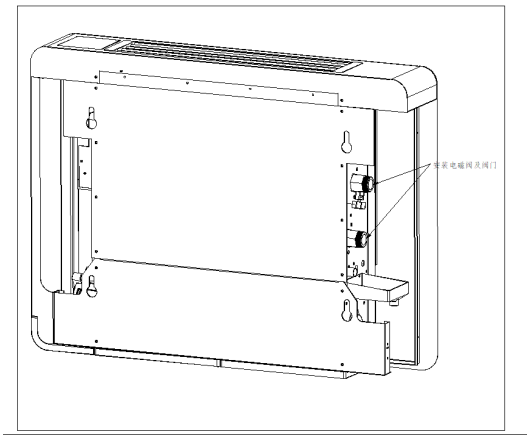
Scenario 2: If an electromagnetic valve needs to be installed at the unit interface, the inlet and outlet water pipes should be installed afterward, and the side panel needs to be removed.

①After removing the screws shown in the diagram below, the side panel can be pulled down.





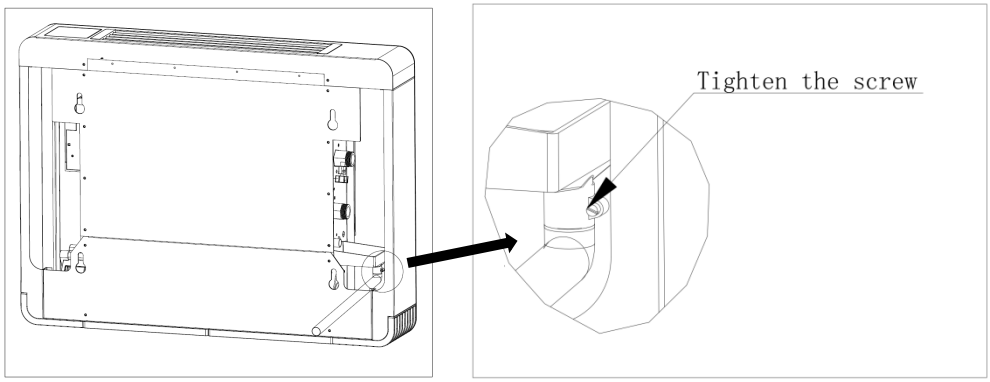
②Install the electromagnetic valve and the corresponding valves, connect the inlet and outlet water hoses to the valves, then reinstall the side panel and tighten the screws that were removed.



6.5.3. Drainage Pipe Installation

①The unit is equipped with an external water collection box for collecting and draining condensate water.

②Take the clamp and drainage pipe from the accessory package and install them at the bottom of the water collection box. Tighten the clamp with a screwdriver.



Note:

①The drainage pipe should slope downward at a minimum of 3° after being introduced to the outer wall.

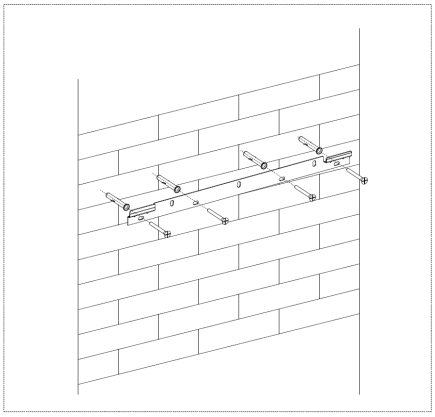
②Verification: Pour water into the water collection box to check if it drains properly.

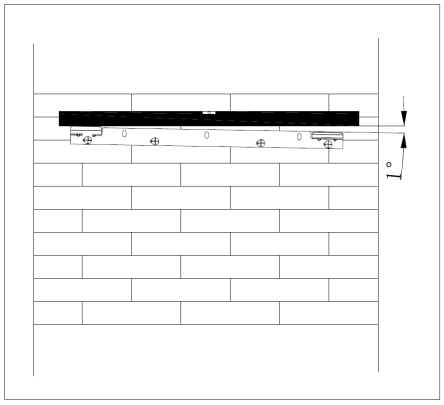
6.5.4. Placing the Unit (Standard Installation)

①Use the appropriate drill bit to drill holes according to the installation Scenario 1, insert the plastic expansion tubes into the holes, and secure the mounting bracket to the wall with

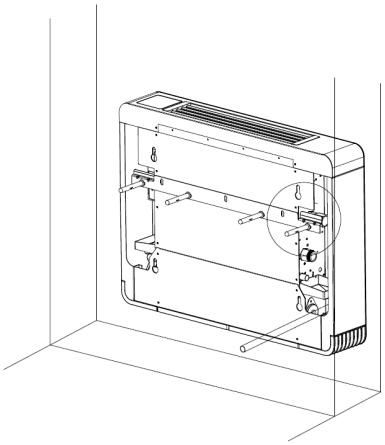
expansion screws.

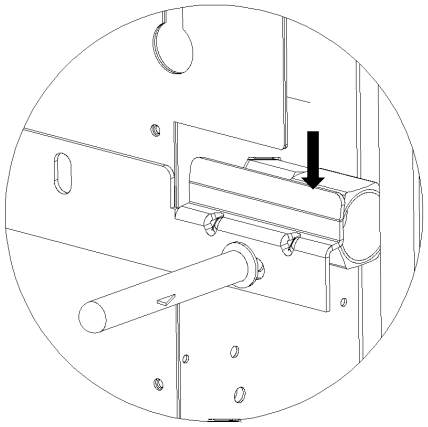
②Check whether it is level, and allow a 1° angle for inclined drainage (Note: if the outlet pipe is connected to the left, it will be tilted 1° to the left; if the outlet pipe is connected to the right, it will be tilted 1° to the right).





Gently mount the unit onto the bracket and perform a trial operation to check the unit's stability.

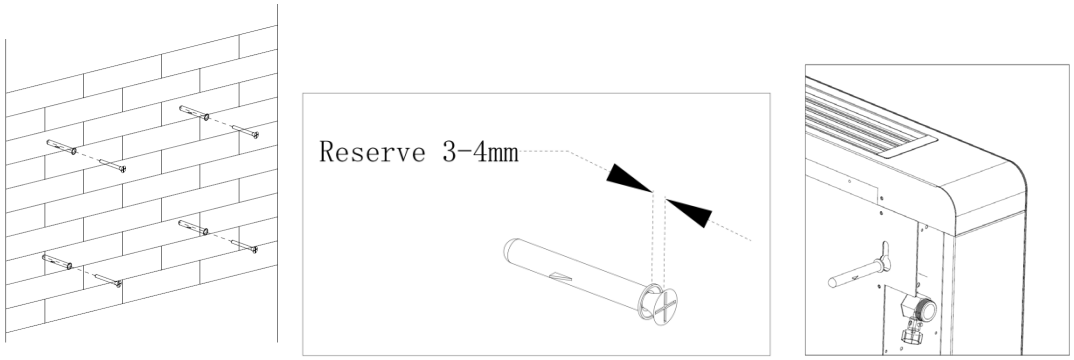




6.5.5. Placing the unit (when the mounting bracket cannot be installed)

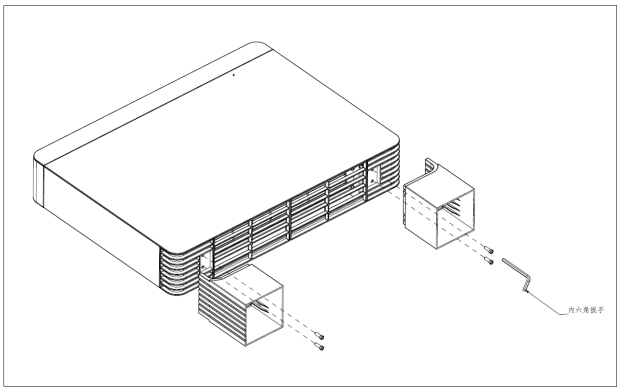
According to installation Scenario 2 from the installation template, use an appropriate drill bit to drill holes and insert the plastic expansion tubes into the holes. At the same time, screw in the expansion screws, but do not overtighten, leave a gap of 3 to 4 mm.

Hang the unit on the four screws through the four mounting holes on the back plate of the unit. After installation, check the stability of the unit and conduct a trial operation test.



6.5.6. Optional accessory installation - Support feet

After the unit's piping and drainage system have been installed, unpack the support feet, take out the feet and accessory screws, and use an Allen wrench to install the feet at the bottom of the unit.



Before placing the unit, ensure the surface is cleared of any debris. Gently place the unit on the ground, making sure not to place it on a rough or uneven surface to prevent vibrations or abnormal noise during operation.

6.6. Electrical Wiring

6.6.1. Safety Instructions:

The internal wiring of the unit has been completed at the factory. Only the power supply needs to be connected.

All electrical work must comply with legal requirements and be performed by qualified personnel who are aware of the associated risks.

Ensure that piping and electrical work are completed before powering the unit.

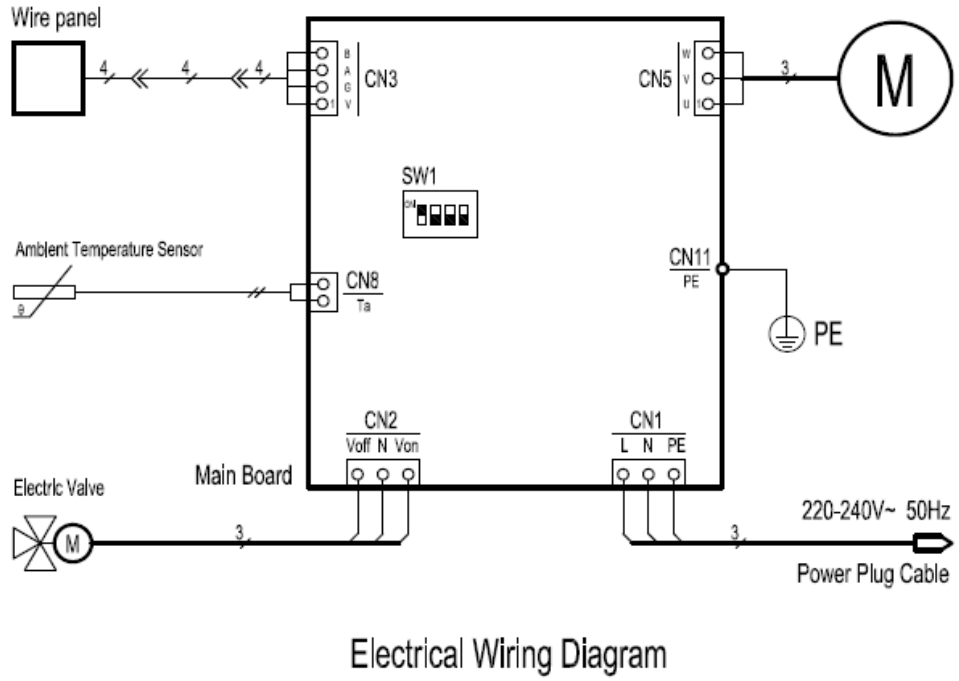
Users are not allowed to modify the power cord. If the power cord is damaged, it must be

replaced by qualified personnel to avoid danger.

After wiring is completed, use wire clamps to secure the cables to prevent them from coming loose and affecting the unit's operation or causing safety hazards.

6.6.2. Electrical Wiring Diagram

Model：	KMFC-016-L0SA	KMFC-028-L0SA	KMFC-034-R0SA
	KMFC-016-R0SA	KMFC-028-R0SA	KMFC-034-L0SA



Electrical Wiring Diagram

6.7. Water Quality Requirements

Before installing the unit, the water quality needs to be tested. To ensure the proper functioning of the unit's water-side heat exchanger, the water quality in the system must meet the requirements in the table below, otherwise the water-side heat exchanger may be damaged.

Item	Standard	Item	Standard
PH Value	7.5 ~ 9	Corrosives Ions (Cl-, SO2-, etc.)	≤ 100mg/L
Hardness (CaCO3 content)	≤ 200mg/L	Suspended solids	≤ 15mg/L
Dissolved oxygen	≤ 0.1mg/L	Minerals	≤ 300mg/L
Solid particles	≤ 1mm	Conductivity (at 25℃)	＜ 30Ms/m

7. Trial Operation

7.1. Water System

After the unit is installed, open all the valves in the water system, fill the system with soft water that meets the water quality requirements, check for leaks, and flush the water system.

7.2. Control System

After powering the unit, observe the display on the control panel to ensure it is functioning correctly. Check for any fault codes and resolve any issues.

7.3. Unit Trial Operation

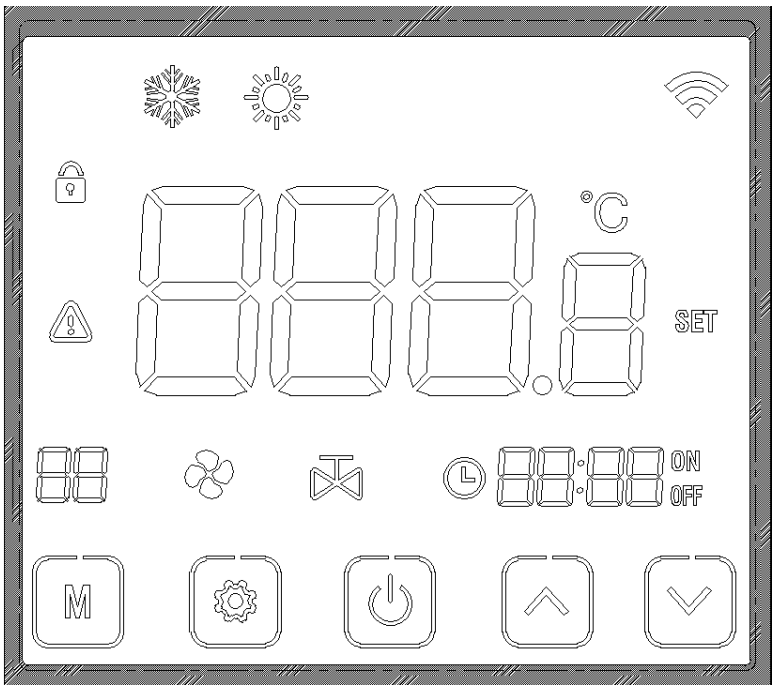
Operate the unit in both heating and cooling modes for 30 minutes. Ensure that there are no abnormal sounds or vibrations, and that the unit operates without any faults during the process.

After the trial operation is complete, the technician should guide the user on how to operate the unit according to the instructions in the manual.

8. Wired Controller Installation and Usage

8.1. The wired controller control panel:

LCD Screen Icons:



: Cooling mode : Heating mode : WIFI status indicator : Locked status

: Fault signal : Fan : Electric valve : Mode button

( ): Fan speed button : Power button : Down button : Up button

8.2. Operation Instructions

8.2.1. Power On/Off:

In the off state, press the power button to turn on the unit. Press the power button again to turn off the unit.

8.2.2. Temperature Setting:

In the on state, press the up or down button to enter the temperature setting mode. Continue to press the up or down button to adjust the temperature. If there is no operation for 5 seconds, the unit will automatically exit the temperature setting mode.

8.2.3. Mode Setting:

In the on state, press the mode button to switch between “heating mode” and “cooling mode.”

8.2.4. Fan Speed Setting:

In the on state, press the fan speed button to cycle through fan speed levels (01 to 05). The fan speed increases from low to high. If the fan speed displays 'AU,' it means automatic fan speed is active.

8.2.5. Timer Setting:

①Timer On Setting:

In the off state, if no timer is set, press and hold the button for 3 seconds to enter the timer on setting. The hour value will flash. Press the up or down button to adjust the hour value. Then press the button again, and the minute value will flash. Press the up or down button to adjust the minute value. Press the button again to confirm the timer on setting. If both the hour and minute values are set to 0, this setting is invalid and will not be sent.

Timer On Cancellation: In the off state, if a timer on setting already exists, press and hold the controller button for 3 seconds to cancel the timer on setting.

②Timer Off Setting:

In the on state, if no timer off setting exists, press and hold the button for 3 seconds to enter the timer off setting. The hour value will flash. Press the up or down button to adjust the hour value. Then press the control button, and the minute value will flash. Press the up or down button to adjust the minute value. Press the button again to confirm the timer off setting. If both the hour and minute values are set to 0, this setting is invalid and will not be sent.

Timer Off Cancellation: In the off state, if a timer off setting already exists, press and hold the button for 3 seconds to cancel the timer off setting.

8.2.6. Button Lock and Unlock

After 30 seconds of inactivity, the screen will turn off. The first button press after the screen is off will only wake up the screen without sending any commands. After 60 seconds of inactivity, the screen will automatically lock. To unlock the buttons after the screen is locked, press and hold the ▲ or ▼ button for 3 seconds.

9. Daily Maintenance, Cleaning, and Care

To ensure that the fan coil unit operates safely and reliably throughout the year, regular maintenance is essential. Users can perform maintenance every six months, while professional personnel should inspect the internal system.

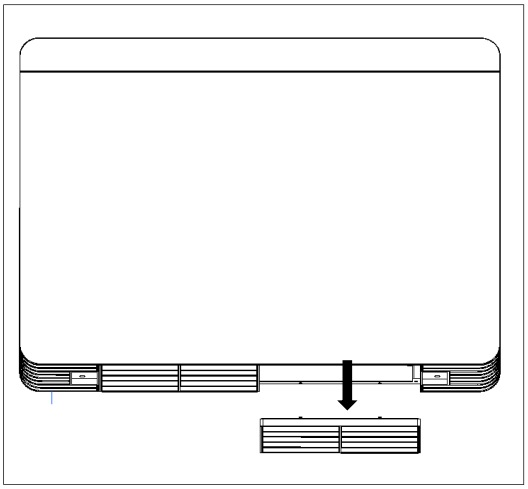
Before cleaning or maintenance, switch off the unit and disconnect it from the power supply. Wait for the equipment to cool down to avoid the risk of burns.

Do not use corrosive cleaning agents to clean the unit, as this may damage the PC surface and the coating.

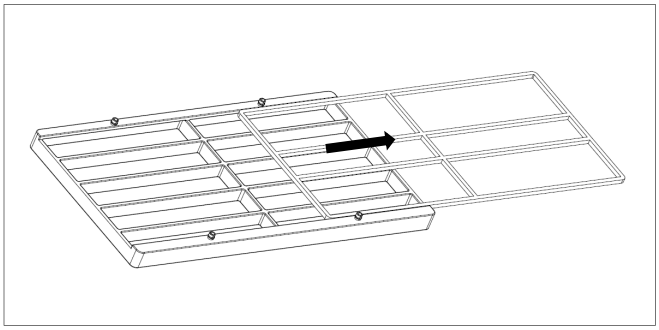
When cleaning, do not attempt to remove or peel off the front PC panel. Wipe the surface of the unit with a soft cloth.

After extended operation, due to impurities in the air, it is necessary to clean the bottom air inlet filter. Follow the steps below:

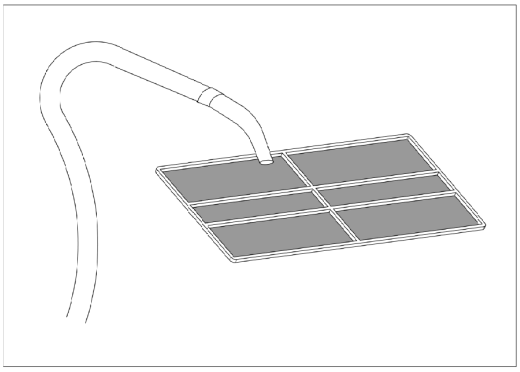
9.1. Grasp the ribs of the air inlet grille and pull it down from the bottom of the unit;



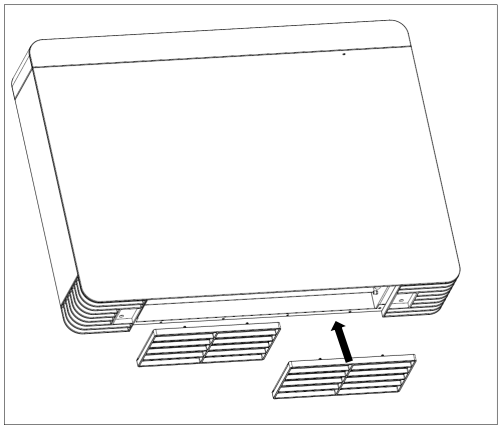
9.2. Remove the filter from the air inlet grille;



9.3. Use a vacuum cleaner to remove dust from the filter, then rinse it with water (do not use cleaning agents or solvents), and finally air dry it;



9.4. Reinstall the filter back into the air inlet grille and reinstall the grille onto the bottom of the unit



Check the water system’s exhaust valve to ensure it is functioning properly. This prevents air from entering the system, which could reduce the circulating water volume and affect the unit's performance and reliability.

10. Fault Code

Fault Code	Fault Description
E1	Controller communication fault
E2	Ambient temperature sensor fault
E5	No motor speed feedback
E6	Motor load mismatch

11. Maintenance Record Table

11.1. The fault description and fault handling measures must be detailed and clear.

11.2. Refer to the "Fault Description" section for guidance on handling faults.

11.3. In the event of an unknown fault, the unit must be immediately stopped, power disconnected, and the local distributor consulted before proceeding with any actions.

11.4. This page should be properly kept for future reference.

Serial No.	Fault Description	Fault Handling Measures	Handling Result	Recorded By	Record Date
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					