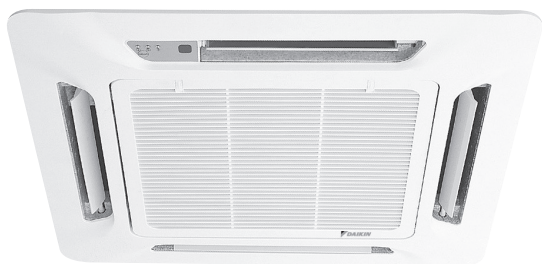




INSTALLATION MANUAL



Models

FWF02CATNMV1

FWF03CATNMV1

FWF04CATNMV1

Installation Manual
Chilled Water Fan Coil Units

English

Installationshandbuch
Kaltwasser-Ventilatorluftkühler

Deutsch

Manuel d'installation
Ventilo-convecteur à eau glacée

Français

Installatiehandboek
Koudwater-Ventilatorluchtkoeler

Nederlands

Manual de instalación
Unidades de serpentín de ventilador de agua fría

Español

Manuale Di Installazione
Unità fan coil ad acqua fredda

Italiano

Εγχειρίδιο εγκατάστασης
Μονάδες πηνίου του ανεμιστήρα για το παγωμένο νερό

Ελληνικά

Manual De Instalação
Unidades de bobina de ventilador de água refrigerada

Portugues

Руководство По Установке
Вентиляторные доводчики с водяным охлаждением

Русский

Kurulum Kılavuzu
Soğuk su fan bobin üniteleri

Türkçe

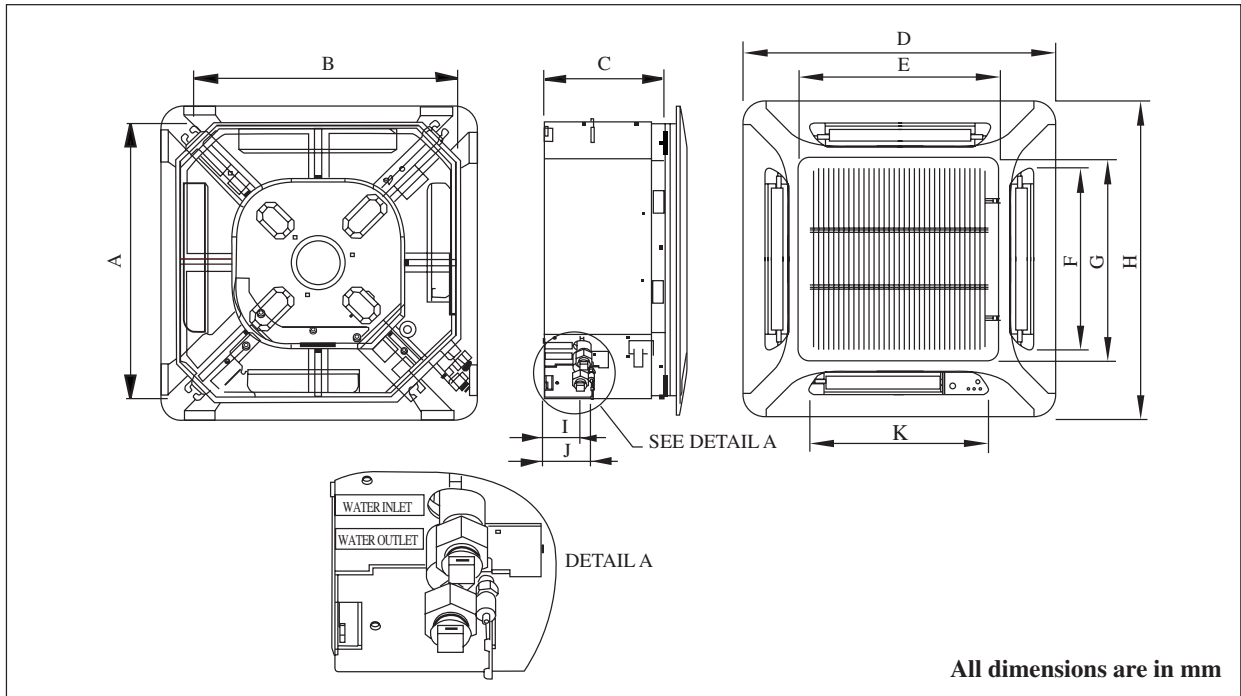


IM-CKCW-0706(1)-Daikin (DENV)
Part No.: R08019029229A



OUTLINE AND DIMENSIONS

Indoor Unit: Ceiling Cassette Fan Coil Unit C Series.



All dimensions are in mm

Dimension	A	B	C	D	E	F	G	H	I	J	K
Model											
FWF02CATNMV1 / FWF03CATNMV1 / FWF04CATNMV1	570	570	250	640	408	364	408	640	75	98	364

INSTALLATION MANUAL

This manual provides the procedures of installation to ensure a safe and good standard of operation for the air conditioner unit. Special adjustment may be necessary to suit local requirement.

Before using your air conditioner, please read this instruction manual carefully and keep it for future reference.

This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.

This appliance is not intended for use by persons, including children, with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.



SAFETY PRECAUTIONS

⚠ WARNING

- Installation and maintenance should be performed by qualified persons who are familiar with local code and regulation, and experienced with this type of appliance.
- All field wiring must be installed in accordance with the national wiring regulation.
- Ensure that the rated voltage of the unit corresponds to that of the name plate before commencing wiring work according to the wiring diagram.
- The unit must be GROUNDED to prevent possible hazard due to insulation failure.
- All electrical wiring must not touch the refrigerant piping, or any moving parts of the fan motors.
- Confirm that the unit has been switched OFF before installing or servicing the unit.
- Disconnect from the main power supply before servicing the air conditioner unit.
- DO NOT pull out the power cord when the power is ON. This may cause serious electrical shocks which may result in fire hazards.
- Keep the indoor and outdoor units, power cable and transmission wiring, at least 1 m from TVs and radios, to prevent distorted pictures and static. {Depending on the type and source of the electrical waves, static may be heard even when more than 1 m away}.

⚠ CAUTION

Please take note of the following important points when installing.

- Do not install the unit where leakage of flammable gas may occur.
- Ensure that drainage piping is connected properly.
 If the drainage piping is not connected properly, it may cause water leakage which will dampen the furniture.
- Ensure that the unit's panel is closed after service or installation.
 Unsecured panels will cause the unit to operate noisily.
- Sharp edges and coil surfaces are potential locations which may cause injury hazards.
Avoid from being in contact with these places.
- Before turning off the power supply, set the remote controller's ON/OFF switch to the "OFF" position to prevent the nuisance tripping of the unit. If this is not done, the unit's fans will start turning automatically when power resumes, posing a hazard to service personnel or the user.
- Do not install the units at or near doorway.
- Do not operate any heating apparatus too close to the air conditioner unit or use in room where mineral oil, oil vapour or oil steam exist, this may cause plastic part to melt or deform as a result of excessive heat or chemical reaction.
- When the unit is used in kitchen, keep flour away from going into suction of the unit.
- This unit is not suitable for factory used where cutting oil mist or iron powder exist or voltage fluctuates greatly.
- Do not install the units at area like hot spring or oil refinery plant where sulphide gas exists.
- Ensure the color of wires of the outdoor unit and the terminal markings are same to the indoors respectively.
- **IMPORTANT : DO NOT INSTALL OR USE THE AIR CONDITIONER UNIT IN A LAUNDRY ROOM.**
- Don't use joined and twisted wires for incoming power supply.
- The equipment is not intended for use in a potentially explosive atmosphere.

NOTICE

Disposal requirement

Your air conditioning product is marked with this symbol. This means that electrical and electronic products shall not be mixed with unsorted household waste.

Do not try to dismantle the system yourself: the dismantling of the air conditioning system, treatment of the refrigerant, of oil and of other parts must be done by a qualified installer in accordance with relevant local and national legislation.

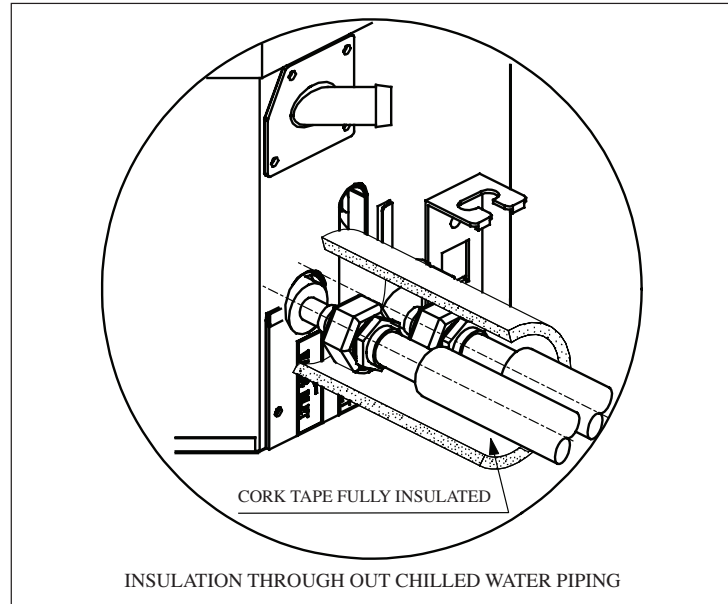
Air conditioners must be treated at a specialized treatment facility for re-use, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. Please contact the installer or local authority for more information.

Batteries must be removed from the remote controller and disposed of separately in accordance with relevant local and national legislation.



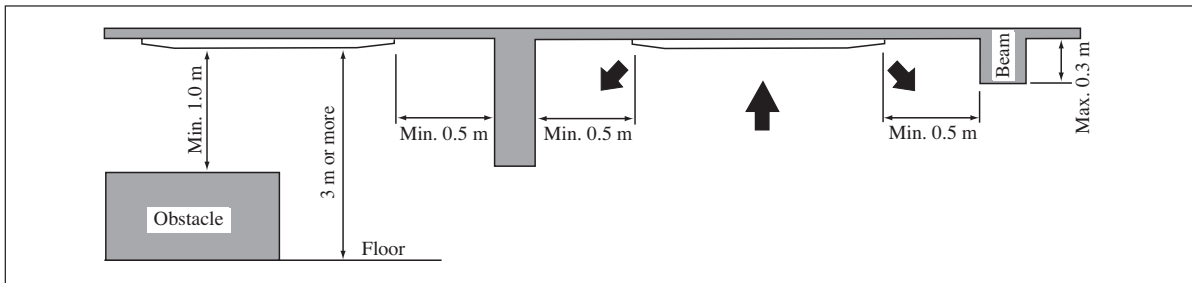
IMPORTANT NOTICE

English



INSTALLATION OF THE INDOOR UNIT

Preliminary Site Survey



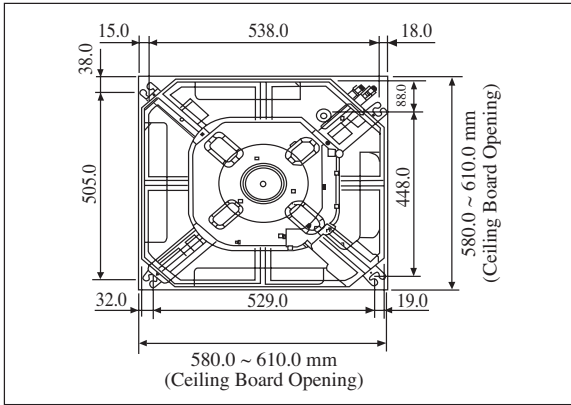
- Voltage supply fluctuation must not exceed $\pm 10\%$ of rated voltage. Electricity supply lines must be independent of welding transformers which can cause high supply fluctuation.
- Ensure that the location is convenient for wiring, piping and drainage.
- The indoor unit must be installed in such that is free from any obstacles in path of cool air discharge and warm air return, and must allow spreading of air throughout the room (near the center of the room).
- Provide clearance for the indoor unit from the wall and obstacles as shown in the figure.
- The installation place must be strong enough to support a load 4 times the indoor unit weight to avoid amplifying noise and vibration.
- The installation place (hanging ceiling surface) must levelled and the height in the ceiling is 350 mm or more.
- The indoor unit must be away from heat and steam sources (avoid installing it near an entrance).



CAUTION

Do not install the unit at altitude over 2000 m for both indoor and outdoor

Unit Installation

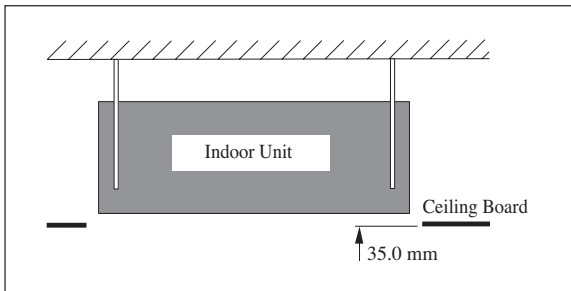


- Measure and mark the position for the hanging rod. Drill the hole for the angle nut on the ceiling and fix the hanging rod.
- The installation template is extended according to temperature and humidity. Check on dimensions in use.
- The dimensions of the installation template are the same as those of the ceiling opening dimensions.
- Before ceiling laminating work is completed, be sure to fit the installation template to the indoor unit.

NOTE

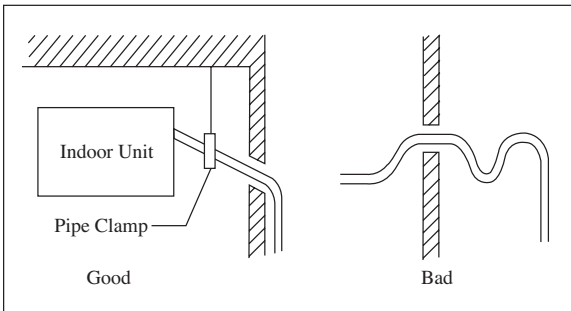
Be sure to discuss the ceiling drilling work with the installers concerned.

Unit Hanging



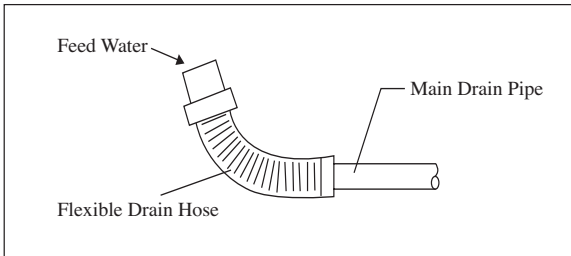
- Confirm the pitch of the hanging rod.
- Hold the unit and hang it on the hanging rod with the nut and washer.
- Adjust the unit height to 35.0 mm between the indoor unit bottom surface and the ceiling surface.
- Confirm with a level gauge that the unit is installed horizontally and tighten the nut and bolt to prevent unit failing and vibration.
- Open the ceiling board along the outer edge of the paper installation template.

Drain Pump Work



- Drain pipe must be in downward gradient for smooth drainage.
- Avoid installing the drain pipe in up and down slope to prevent reversed water flow.
- During the drain pipe connection, be careful not to exert extra force on the drain connector at indoor unit.
- The outside diameter of the drain connection at the flexible drain hose is 20 mm.
- Be sure to execute heat insulation (polyethylene foam with thickness more than 8.0 mm) on the drain piping to avoid the condensed water dripping inside the room.

Drain Test



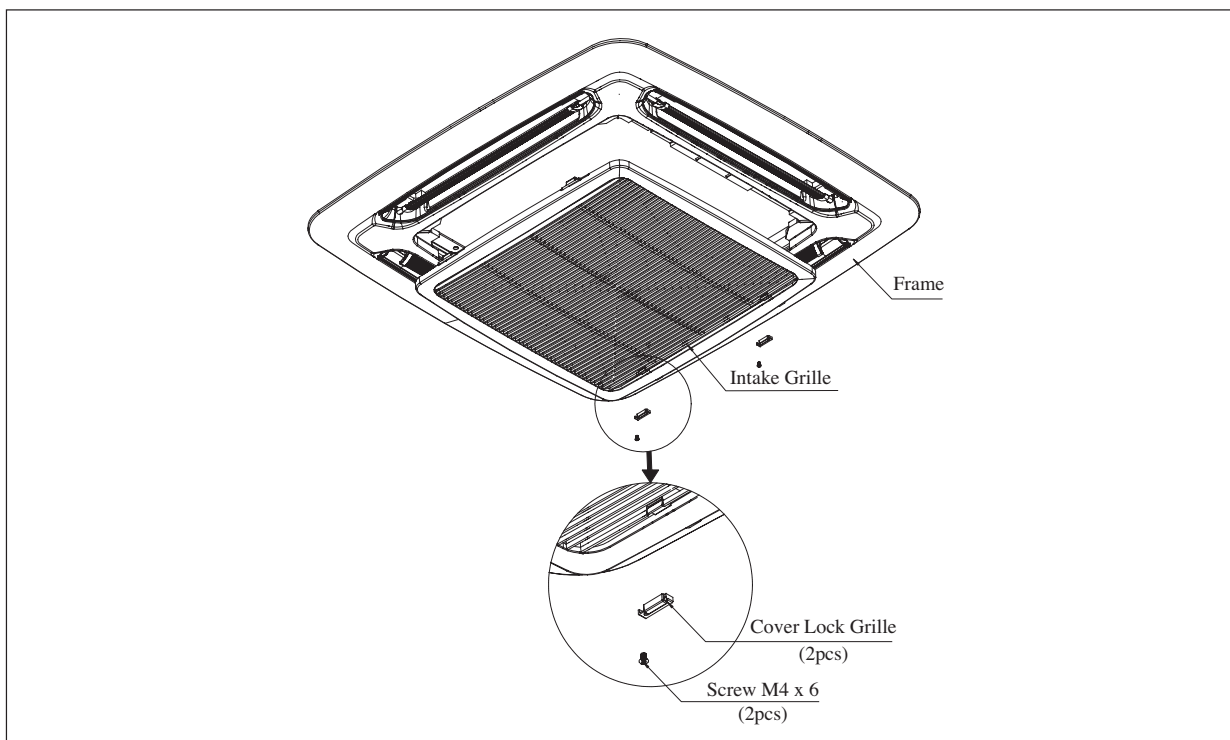
- Connect the main drain pipe to the flexible drain.
- Feed water from flexible drain hose to check the piping for leakage.
- When the test is completed, connect the flexible drain hose to the drain connector on the indoor unit.

NOTE

This indoor unit uses a drain pump for condensed water drainage. Install the unit horizontally to prevent water leakage or condensation around the air outlet.

Cover Lock Grille (The moving part protection for user direct touching)

Cover lock grille must be installed as the figure below.

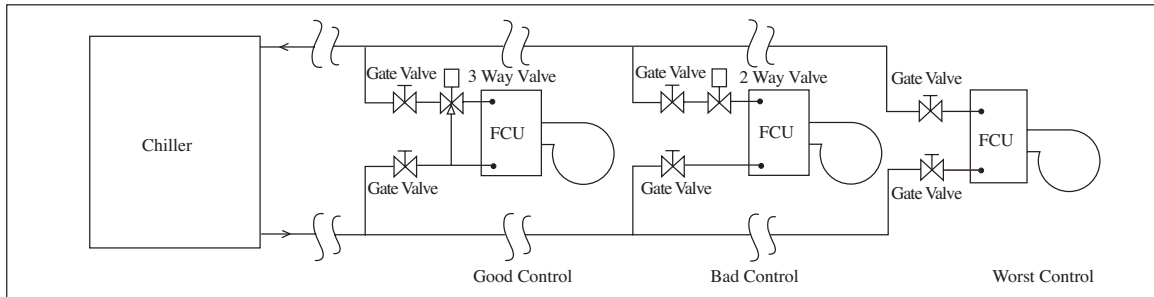


If the unit need to be service, steps below shall be followed:

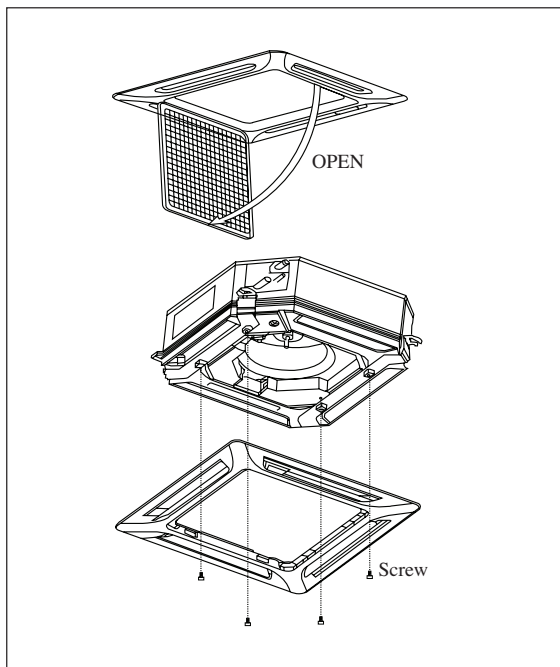
1. Confirm that the unit had been switched off before servicing the unit.
2. Use screwdriver to unlock the screw on the cover lock grille.
3. Remove the cover lock grille and open the intake grille for the service purpose.
4. Install the intake grille and screw the cover lock grille after service and make sure the unit is proper install.

Water Piping Connection

- The indoor unit is equipped with water outlet and inlet connection. There is an air-vent that is fitted along with the connection for air purging.
- 3 ways valve is required for cycling off or bypass the chilled water.
- Black steel pipe, closed cell polyurethane pipe and copper tube are recommended in the field installation. All types of piping and connection must be insulated with closed cell polyurethane to avoid condensation.
- Do not use contaminated or damaged pipe and fitting for installation.
- Some main fitting components are needed in the system to enhance the capacity and ease the service, such as gate valve, balancing valve, 2 ways or 3 ways valve, filter, strainer and etc.

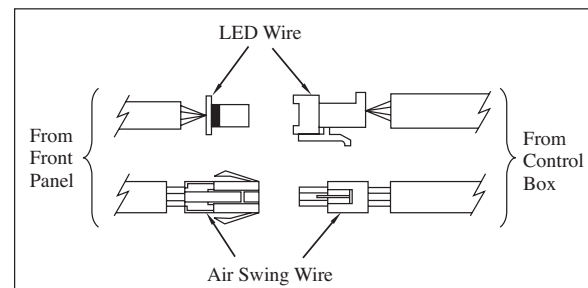


Panel Installation



- Be sure to remove the installation template before installing the front panel.
- Open the air intake grille by pulling back the catchers and removing it together with filter from panel.
- Install the front frame panel onto the indoor unit by 4 screws and tighten it completely to prevent cool air leakage.
- Connect the LED wire and air swing wire to the indoor unit.

Note: Install the front panel firmly to prevent cool air leakage which will cause condensation and water dripping.

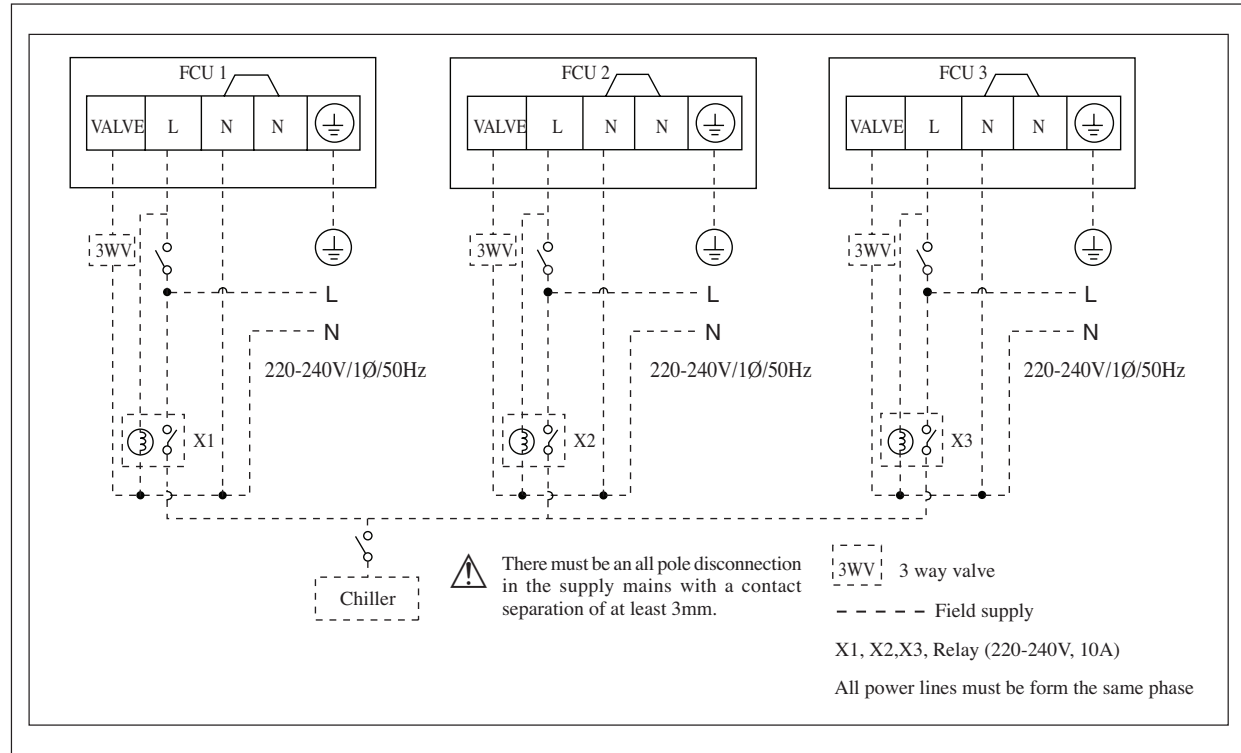


ELECTRICAL WIRING CONNECTION

This is proposed wiring connection. It may change subject to the chiller unit and must comply with the local and national code and regulations.

Model: FWF02CATNMV1 / FWF03CATNMV1 / FWF04CATNMV1

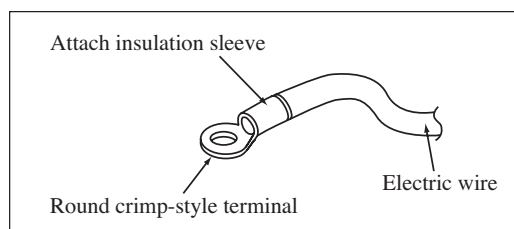
English



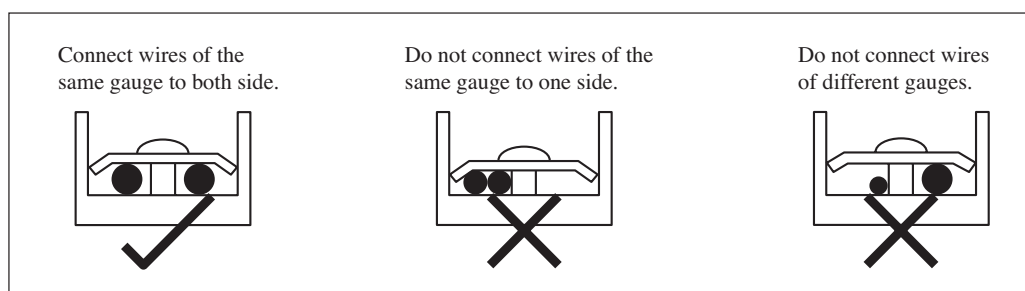
IMPORTANT : * These values are for information only. They should be checked and selected to comply with local and/or national codes and regulations. They are also subject to the type of installation and size of conductors.
 ** The appropriate voltage range should be checked with label data on the unit.
 A main switch or other means for disconnection, having a contact separation in all poles, must be

Model	FWF02CATNMV1	FWF03CATNMV1	FWF04CATNMV1
Voltage range**	220V-240V/1Ph/50Hz+⊕, 208V-230V/1Ph/60Hz+⊕		
Recommended time delay fuse* A	2	2	2
Power supply cable size* mm ²	1.5	1.5	1.5
Number of conductors	3	3	3

- All wires must be firmly connected.
- Make sure all the wire do not touch the refrigerant pipings, compressor or any moving parts.
- The connecting wire between the indoor unit and the outdoor unit must be clamped by using provided cord anchorage.
- The power supply cord must be equivalent to H07RN-F which is the minimum requirement.
- Make sure no external pressure is applied to the terminal connectors and wires.
- Make sure all the covers are properly fixed to avoid any gap.
- Use round crimp-style terminal for connecting wires to the power supply terminal block. Connect the wires by matching to the indication on terminal block. (Refer to the wiring diagram attached on the unit).



- Used the correct screwdriver for terminal screws tightening. Unsuitable screwdrivers can damage the screw head.
- Over tightening can damage the terminal screws.
- Do not connect wire of different gauge to same terminal.
- Keep wiring in an orderly manner. Prevent the wiring from obstructing other parts and the terminal box cover.



OPERATING RANGE

Operating Limits:

Thermal carrier : Water

Water temperature : 4° ~ 10°C (Cooling), 35°C ~ 70°C (Heating)

Maximum water pressure : 16 bar

Air temperature : (as below)

Cooling Unit

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	19.0 / 66.2	14.0 / 57.2
Maximum indoor temperature	32.0 / 89.6	23.0 / 73.4

Heat Pump Unit

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	15.0 / 59.0	-
Maximum indoor temperature	27.0 / 80.6	-

Ts: Dry bulb temperature.

Th: Wet bulb temperature.

INDICATOR LIGHTS

Remote Control

When there is infrared remote control operating signal, the signal receiver on indoor unit will make a <beep> for signal acceptance confirmation.

Error Description	Cool LED	Error Indication
Room Sensor error	1 blink	E1
Pipe water sensor error	2 blinks	E2
Water pump error	6 blinks	E6
Pipe water temperature fault	5 blinks	E5
*Window open activated	3 blinks	-
*Antifreeze mode activated	7 blinks	-
*Load shedding activated	8 blinks	-

*Only applicable for 4-pipe system

OVERALL CHECKING

• Ensure the following, in particular:-

- 1) The unit is mounted solidly and rigid in position.
- 2) Piping and connections are leak proof after charging.
- 3) Proper wiring has been done.

Drainage check:- Pour some water into left side of drain pan (drainage are in right side of unit).

• Test run:

- 1) Conduct a test run after water drainage test and gas leakage test.
- 2) Watch out for the following:-
 - a) Is the electric plug firmly inserted into the socket?
 - b) Is there any abnormal sound from unit?
 - c) Is there smooth drainage of water?

• Check that:

- 1) Condenser fan is running, with warm air blowing off the condensing unit.
- 2) Evaporator blower is running and discharge cool air.

SERVICE AND MAINTENANCE

Service Parts	Maintenance Procedures	Period
Indoor Air Filter	<ol style="list-style-type: none"> 1. Remove any dust adhering to the filter by using a vacuum cleaner or wash in lukewarm water (below 40°C/104°F) with a neutral cleaning detergent. 2. Rinse the filter well and dry before placing it back onto the unit. 3. Do not use gasoline, volatile substances or chemicals to clean the filter. 	<p>At least once every 2 weeks.</p> <p>More frequently if necessary.</p>
Indoor Unit	<ol style="list-style-type: none"> 1. Clean any dirt or dust on the grille or panel by wiping it using soft cloth soaked in lukewarm water (below 40°C) with neutral detergent solution. 2. Do not use gasoline, volatile substances or chemical to clean the indoor unit. 	<p>At least once every 2 weeks.</p> <p>More frequently if necessary.</p>

CAUTION

- Avoid direct contact of any coil treatment cleaners on plastic part. This may cause plastic part to deform as a result of chemical reaction.

TROUBLESHOOTING

For any enquiries on spare parts, please contact your authorized dealer. If any malfunction of the air conditioner unit is noted, immediately switch off the power supply to the unit. Check the following fault conditions and causes for some simple troubleshooting tips.

Fault	Causes/Action
1. The air conditioner unit does not operate.	<ul style="list-style-type: none"> – Power failure, or the fuse need to be replaced. – The power plug is disconnected. – It is possible that your delay timer has been set incorrectly. – If the fault persist after all these verifications, please contact the air conditioner unit installer.
2. The air flow is too low.	<ul style="list-style-type: none"> – The air filter is dirty. – The doors or windows are open. – The air suction and discharge are clogged. – The regulated temperature is not high enough. (applicable for auto-fan mode only)
3. Discharge air flow has bad odor.	<ul style="list-style-type: none"> – Odours may be caused by cigarettes, smoke particles, perfume etc. which might have adhered onto the coil.
4. Condensation on the front air grille of the indoor unit.	<ul style="list-style-type: none"> – This is caused by air humidity after an extended long period of operation. – The set temperature is too low, increase the temperature setting and operate the unit at high fan speed.
5. Water flowing out from the air conditioner unit.	<ul style="list-style-type: none"> – Switch off unit and call dealer.

If the fault persists, please call your local dealer / serviceman.

**MEMO / MITTEILUNG / LE MÉMO / MEMO / EL MEMORÁNDUM /
PROMEMORIA / ΣΗΜΕΙΩΜΑ / MEMO / ПАМЯТКА / NOT**



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FWF02CATNMV1, FWF03CATNMV1, FWF04CATNMV1,

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- В случае противоречия перевода данного руководства с другими переводами одного и того же текста, английский вариант рассматривается как приоритетный.
- Завод-изготовитель оставляет за собой право изменять характеристики и конструкцию в любое время без предварительного уведомления.
- Bu kılavuzun anlaşılmasında bir çatışma olduğunda ve farklı dillerdeki tercümeler farklılık gösterdiğinde, bu kılavuzun İngilizce sürümü üstün tutulacaktır.
- Üretici burada bulunan herhangi teknik özellikleri ve tasarımları herhangi bir zamanda ve önceden haber vermeden değiştirme hakkını saklı tutar.