DAIKIN

R410A

TECHNICAL MANUAL

Split Unit Air Conditioner
Inverter Multi Split Series

MX-B Series

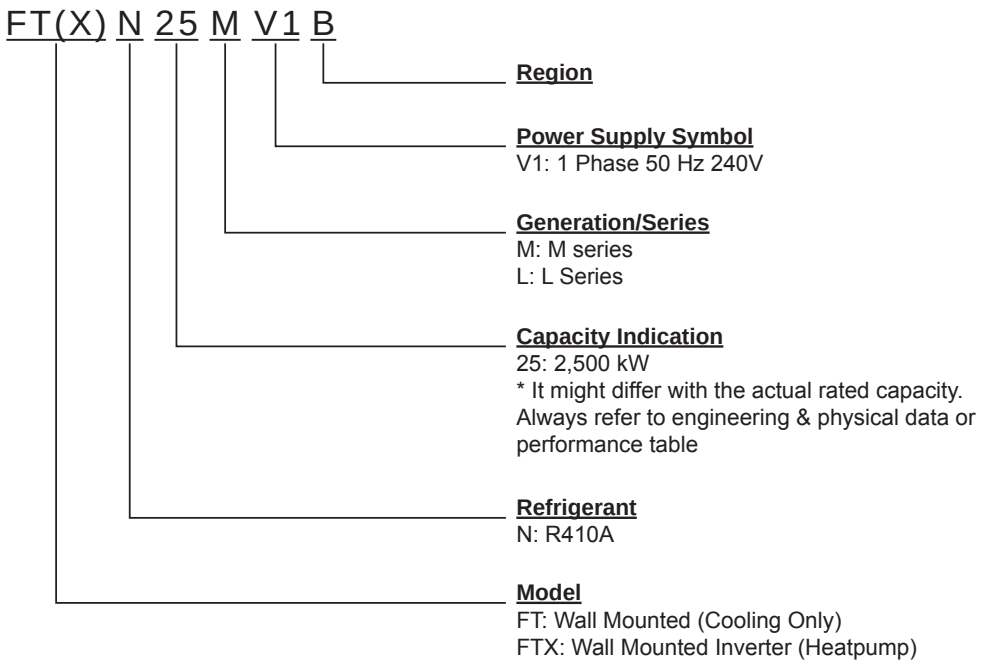
— Cooling only & Heatpump [50Hz] —

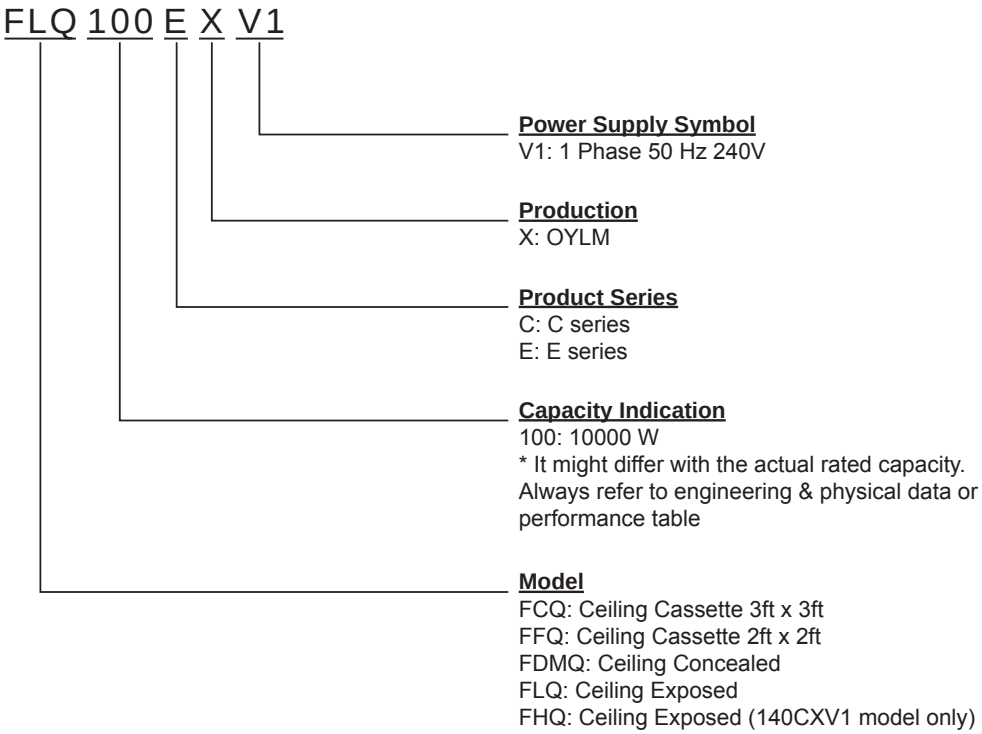
TM-5MSY-B-ST-A1

Table of Contents

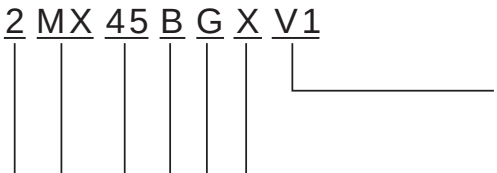
Nomenclature

Indoor





Outdoor



Power Supply Symbol
V1: 1 Phase 50 Hz 220~240V

Production
X: OYLM

Generation Minor Changes

Generation/Series

Capacity Indication
45: ≈ 13,650 Btu/h [4kW]
50: ≈ 18,400 Btu/h [5.4kW]
60: ≈ 22,200 Btu/h [6.5kW]
80: ≈ 26,100 Btu/h [7.65kW]
* It might differ with the actual rated capacity. Always refer to engineering & physical data or performance table

Multi Split Inverter (Heatpump)

Indoor Quantity
2: 2 Indoor Units
3: 3 Indoor Units
4: 4 Indoor Units

Product Line-Up

Indoor Unit: Wall mounted
FTXN-MV1 Series

Model		Classification									
		Panel (Handset)		PCB	Fin	Refrigerant Control		Air Purification		Others
		BRC52A61		C_2_01A-M	Hydrophilic (Blue)	Expansion Device	Without Expansion Device	Saranet Filter	Without Air Filter	Auto restart
Heatpump	FTXN25MV1B	X		X	X		X	X		X
	FTXN45MV1B	X		X	X		X	X		X
	FTXN50MV1B	X		X	X		X	X		X

Indoor Unit: Ceiling Cassette
FFQ-CXV1 / FCQ-EXV1 Series

Model		Classification									
		Panel (Handset)		PCB	Fin	Refrigerant Control		Air Purification		Others
		BYCQ20CXW (BRC52A61)		C_2_01A-M	Hydrophilic (Blue)	Expansion Device	Without Expansion Device	Saranet Filter	Without Air Filter	Auto restart
Heatpump	FFQ25CXV1	X		X	X		X	X		X
	FFQ35CXV1	X		X	X		X	X		X
	FFQ50CXV1	X		X	X		X	X		X

Indoor Unit: Ceiling Concealed
FDMQ-C(2)XV1 Series

Model		Classification									
		Panel (Handset)		PCB	Fin	Refrigerant Control		Air Purification		Others	
		BRC51A61		C_2_01A-M	Hydrophilic (Blue)	Expansion Device	Without Expansion Device	Saranet Filter	Without Air Filter	Auto restart	
Heatpump	FDMQ25C2XV1	X		X	X		X	X		X	
	FDMQ35CXV1	X		X	X		X	X		X	
	FDMQ50CXV1	X		X	X		X	X		X	

Indoor Unit: Ceiling Mounted
FLQ-EXV1 Series

Model		Classification									
		Panel (Handset)		PCB	Fin	Refrigerant Control		Air Purification		Others	
		BRC52A61		C_2_01A-M	Hydrophilic (Blue)	Expansion Device	Without Expansion Device	Saranet Filter	Without Air Filter	Auto restart	
Heatpump	FLQ35EXV1	X		X	X		X	X		X	
	FLQ50EXV1	X		X	X		X	X		X	

Outdoor Unit
MX-B Series

Model		Classification								
		Compressor	Fin	Refrigerant Control		Others	Others			
		DC Inverter Swing	Hydrophilic (Blue)	Expansion Device	Without Expansion Device	Drain Elbow	Drain Elbow			
Heatpump	2MX45BGXV1	X	X	X		X	X			
	2MX50BGXV1	X	X	X		X	X			
	3MX60BGXV1	X	X	X		X	X			
	4MX80BGXV1	X	X	X		X	X			

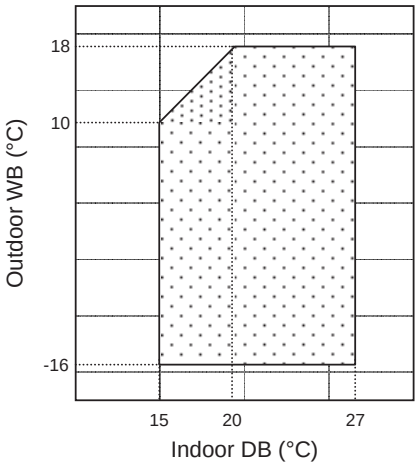
Application Information

Operating Range

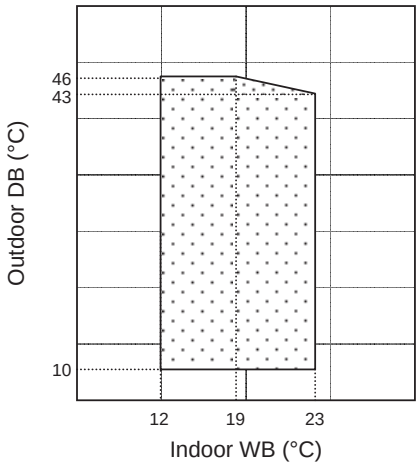
Ensure the operating temperature is in allowable range.

Heatpump - 2MX50BGXV1 / 3MX60BGXV1 / 4MX80BGXV1

Heating

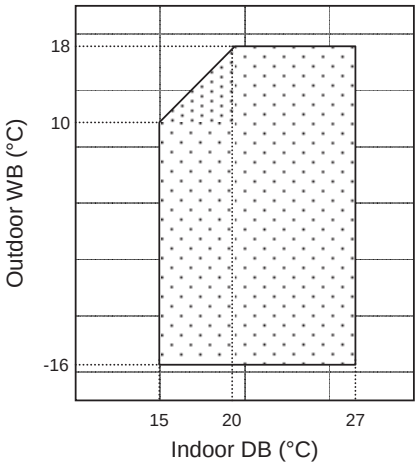


Cooling

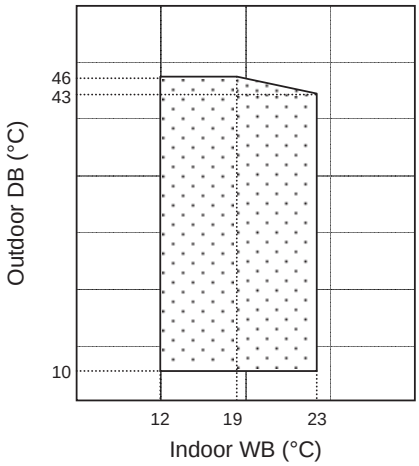


Heatpump - 2MX45BGXV1

Heating



Cooling

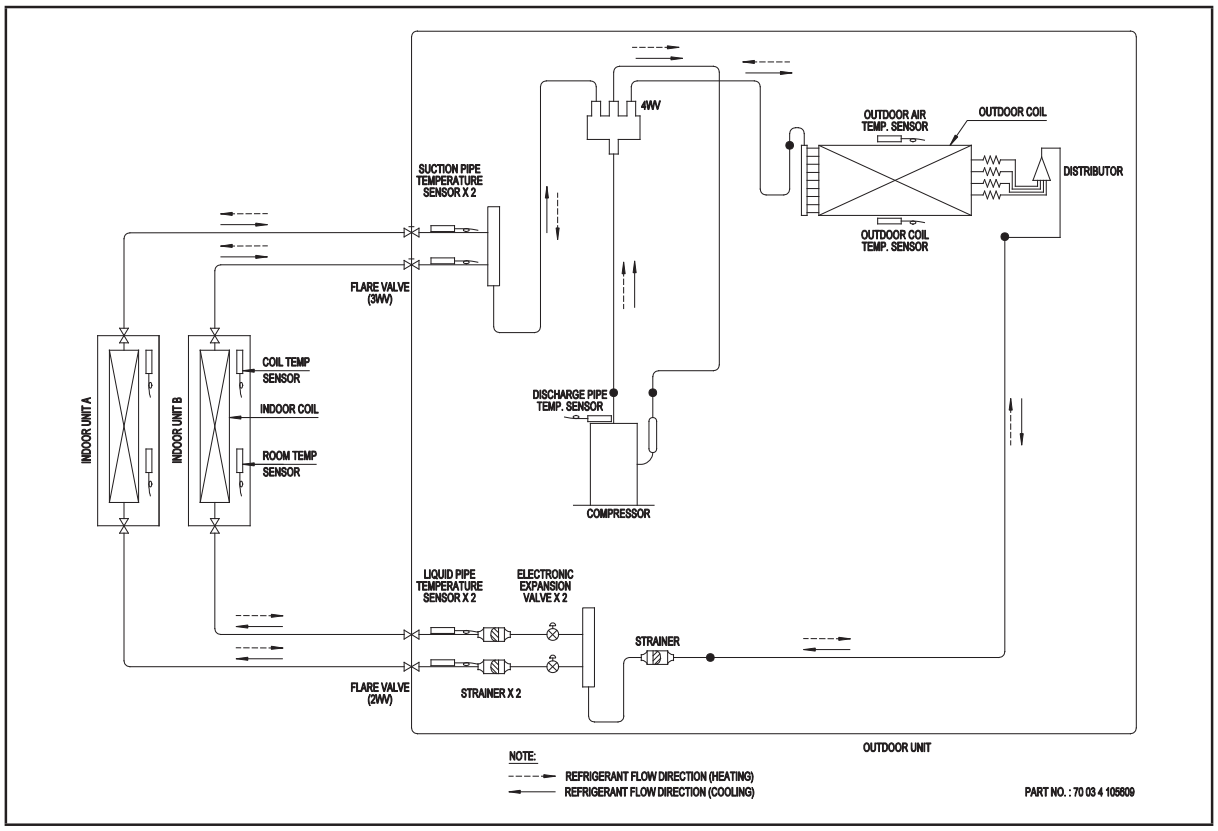


⚠ Caution :

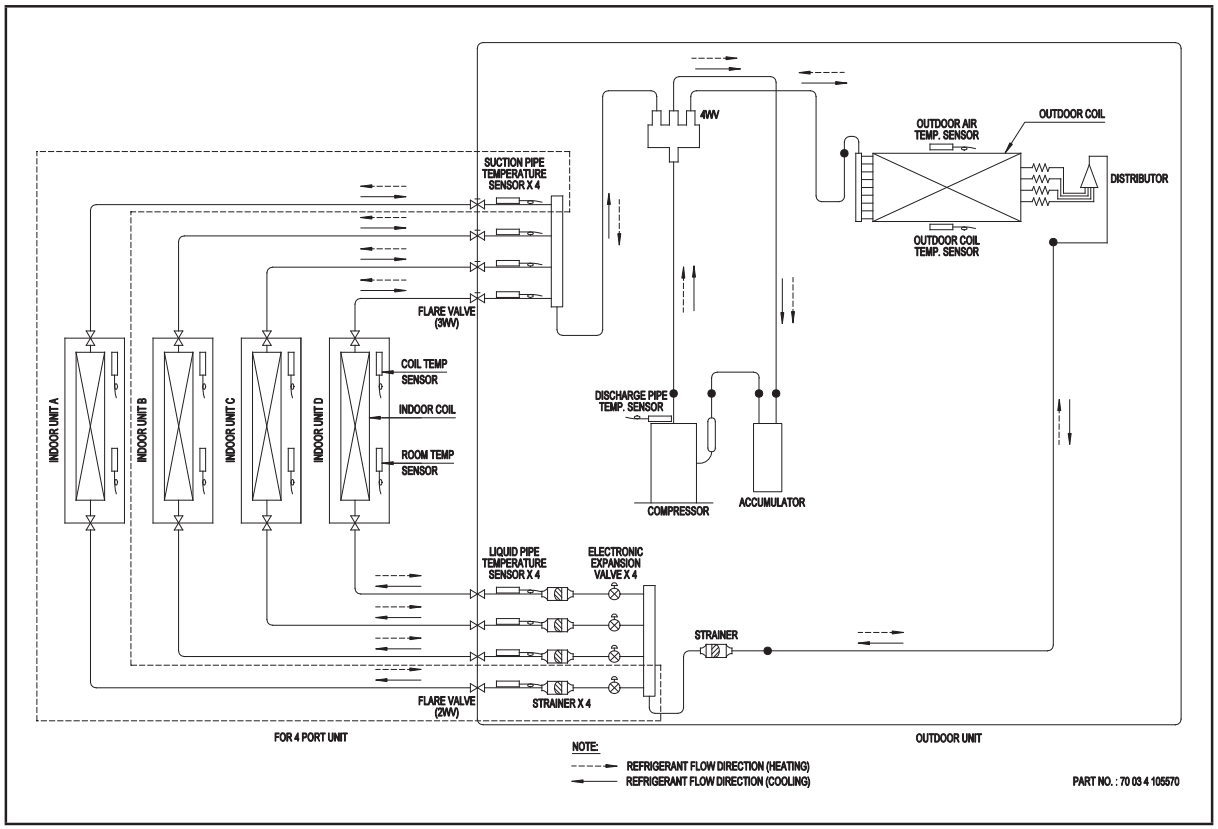
The use of your air conditioner outside the range of working temperature and humidity can result in serious failure.

Refrigerant Circuit Diagrams

Model: 2MX45BGXV1 / 2MX50BGXV1



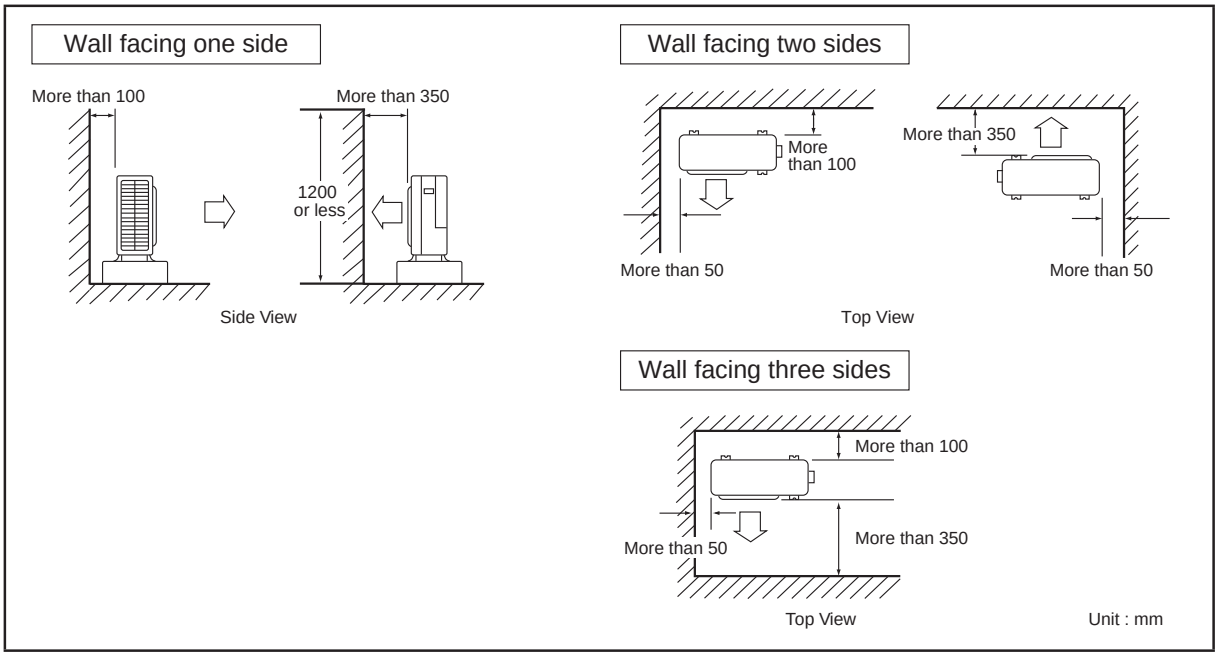
Model: 3MX60BGXV1 / 4MX80BGXV1



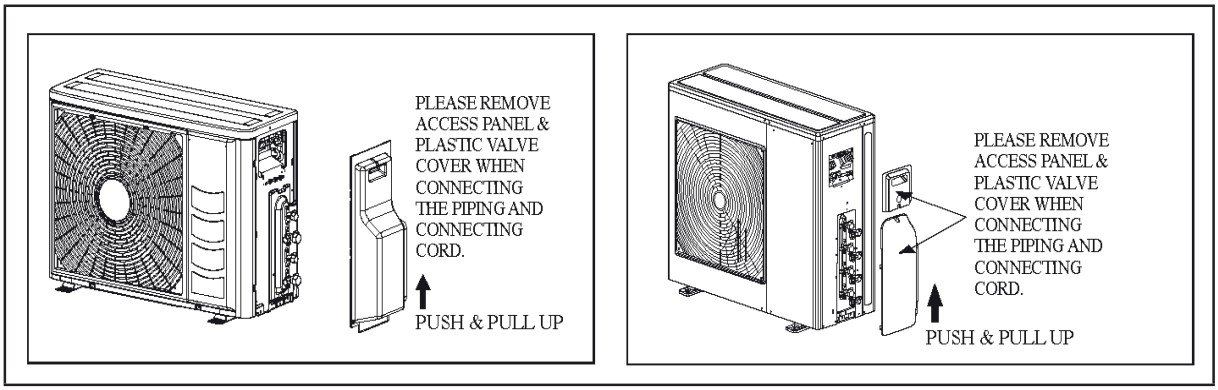
Installation Guideline

Installation of Outdoor Unit

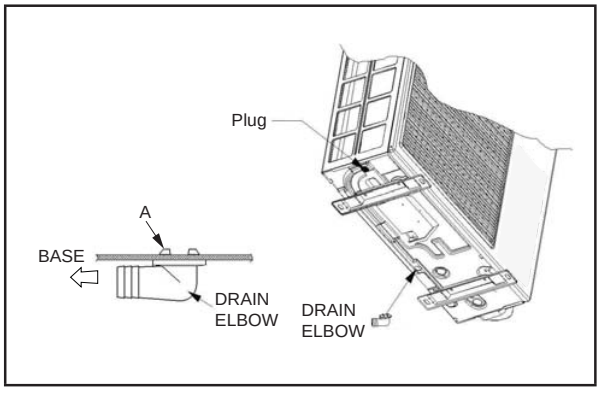
- The outdoor unit must be installed in such a way, so as to prevent short circuit of the hot discharged air or obstruction to the smooth air flow. Please follow the installation clearance shown in the figures below. Select the coolest possible place where intake air temperature is not greater than the outside air temperature (maximum 45°C/113°F).
- Where a wall or other obstacle is in the path of outdoor unit's intake or exhaust airflow, follow the installation guidelines below.
- For any of the below installation patterns, the wall height on the exhaust side should be 1200mm or less.



- Before installing the piping and connecting cord, please remove the access panel and plastic valve cover for easy access. Refer to figures shown below.

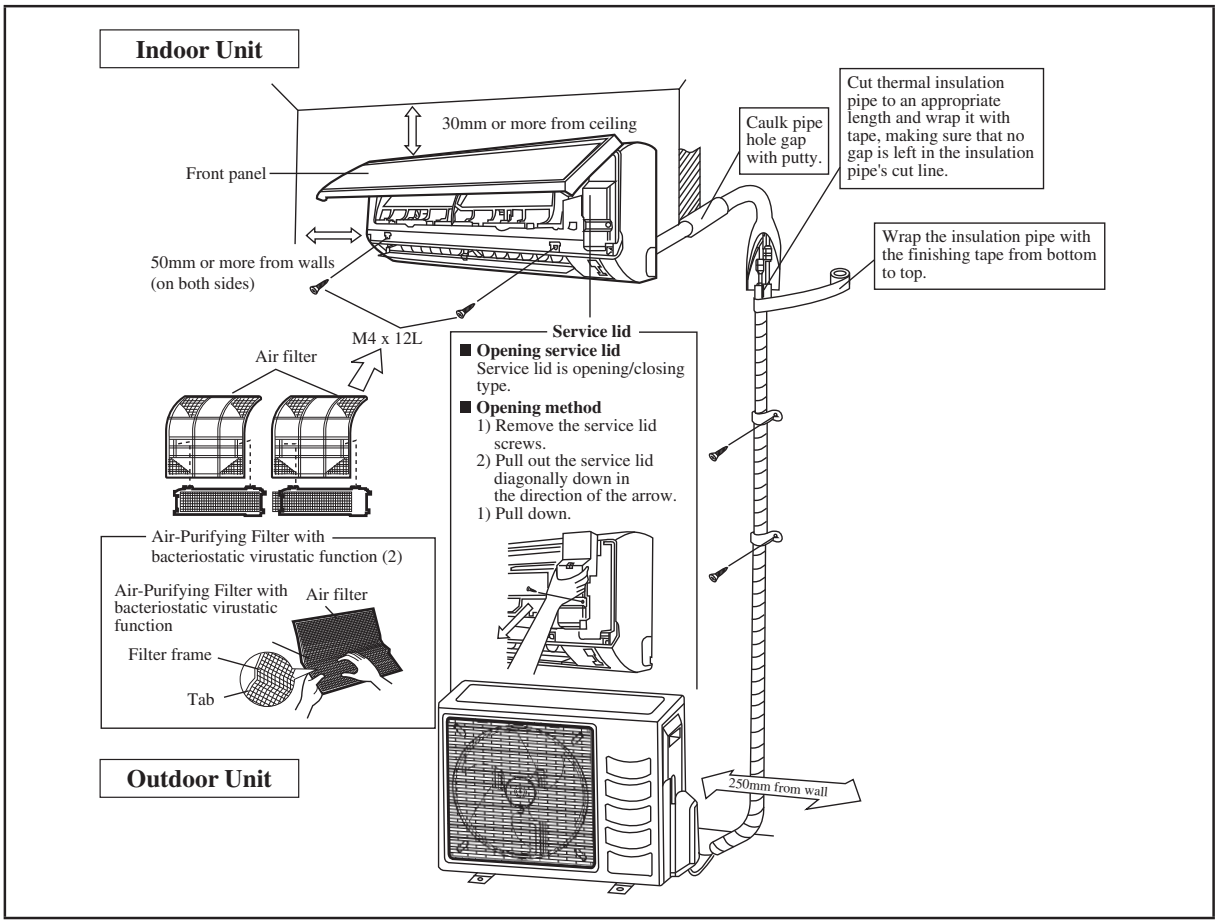


- There are 2 holes on the base of Outdoor Unit for condensed water to flow out. Insert the drain elbow to one of the holes.
- To install the drain elbow, first insert one portion of the hook to the base (portion A), then pull the drain elbow in the direction shown by the arrow while inserting the other portion to the base. After installation, check to ensure that the drain elbow clings to base firmly.
- If the unit is installed in a snowy and chilly area, condensed water may freeze in the base. In such case, please remove plug at the bottom of unit to smooth the drainage.



Installation Diagram

Wall Mounted



Caution

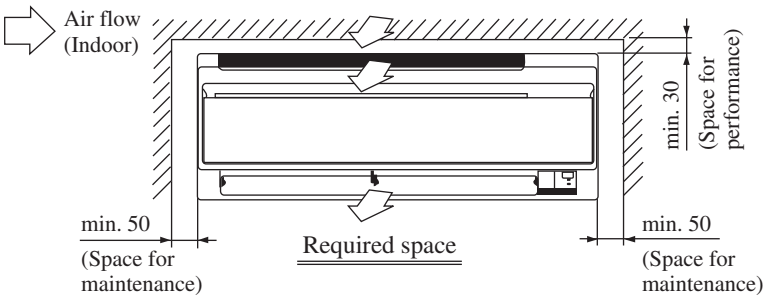
- Before installing the unit, ensure that the power supply matches the power requirement of the air conditioner.

Installation of Indoor Unit

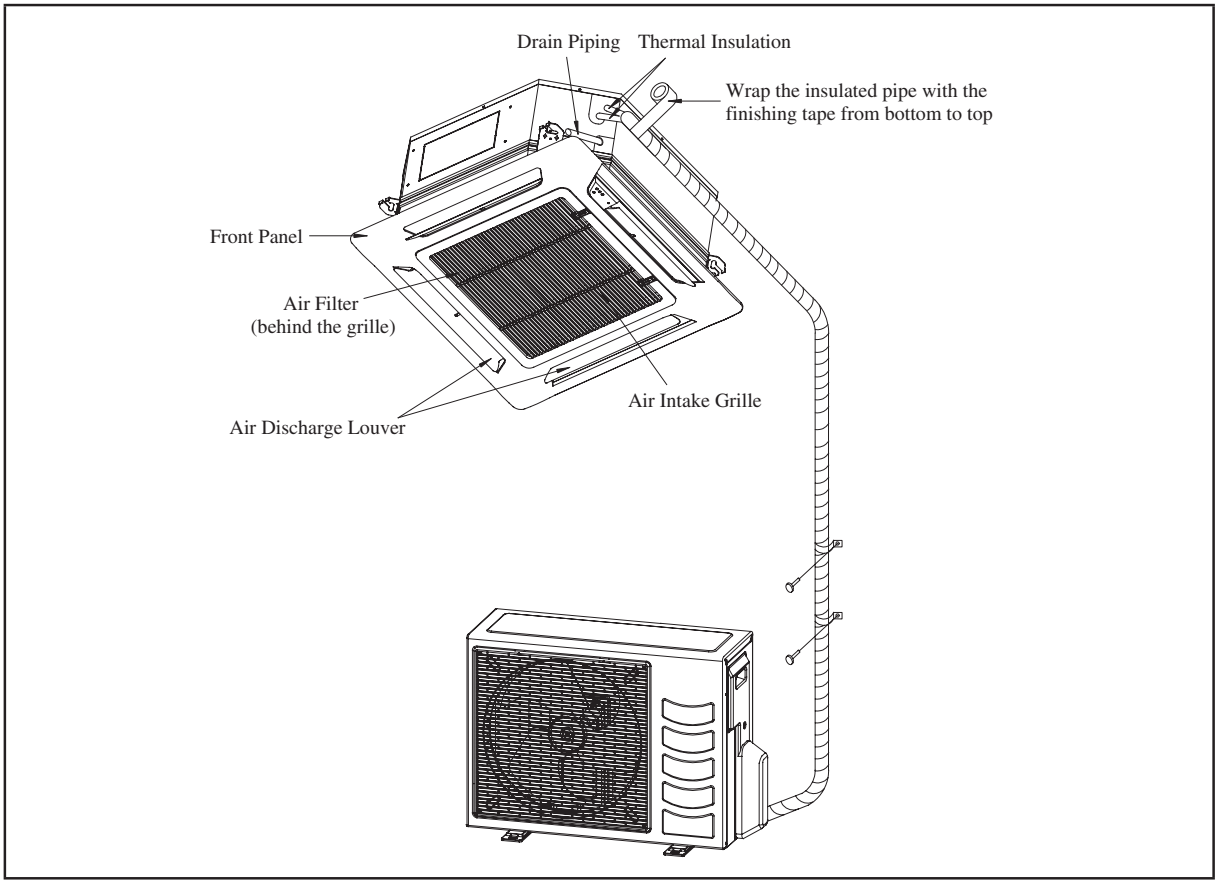
Service Space

Install the indoor unit at a location with the following requirements

- Location is suitable for wiring, piping and drainage.
- No obstruction of air flow into and out of unit where cooler air can be evenly distributed.
- Ensure that air discharge is not short circuited with air intake.
- Ensure that wall is sufficiently strong, rigid, flat, perpendicular and vibration free.
- Where air filter cassette can be slided in or out easily.
- Where there is no danger of flammable gases.
- Where there is no direct sunlight on unit.

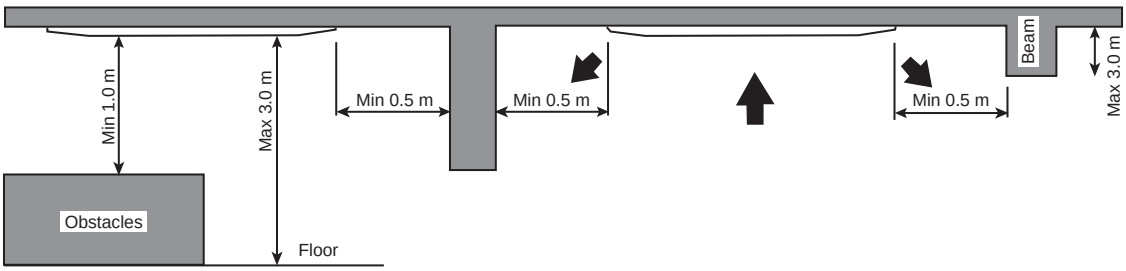


Ceiling Cassette



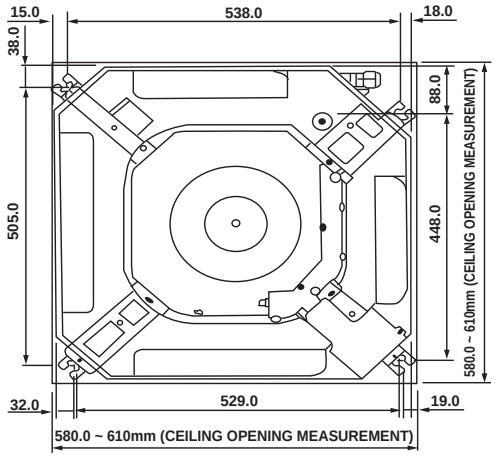
Preliminary Site Survey

- Electrical supply and installation is to confirm to local authority's (e.g. National Electrical Board) codes and regulations.
- Voltage supply fluctuation must not exceed ± 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 free from any obstacles in path of cool air discharge and warm air return, and must allow spreading or air throughout the room (near the centre of the room).
- Clearance must be provided 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 of 4 times the indoor unit weight to avoid amplifying noise and vibration.
- The installation place (handling ceiling surface) must be level and the height in the ceiling is 350mm or more.

Unit Installation

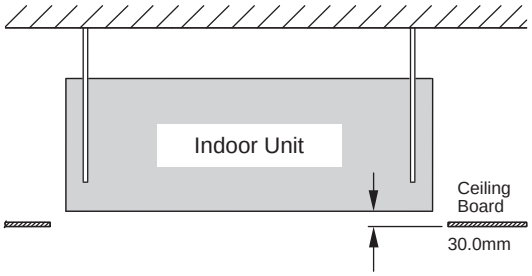


FFQ-CXV1

- The indoor unit must be away from heat and steam sources (avoid installing it near an entrance).
- 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 using.
- The dimensions of the installation template are 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.

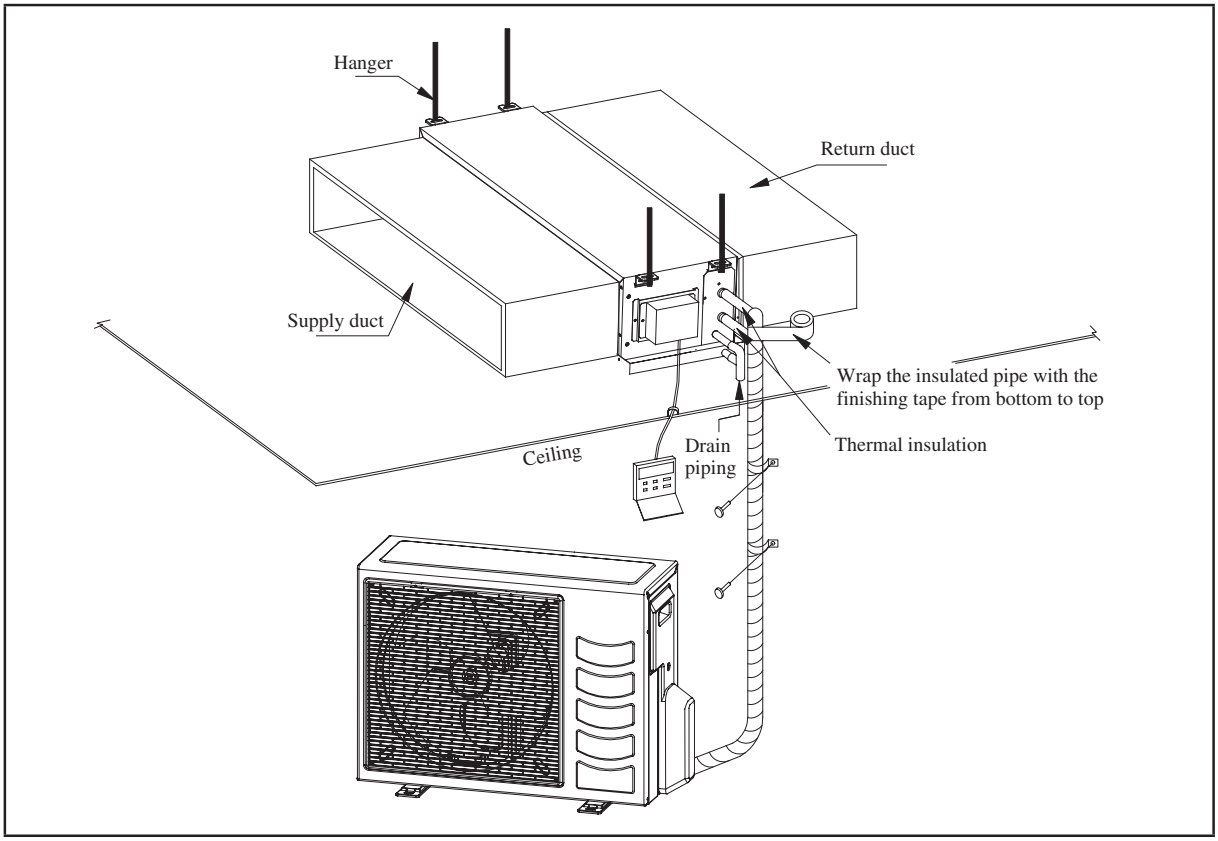
Unit Hanging



FFQ-CXV1

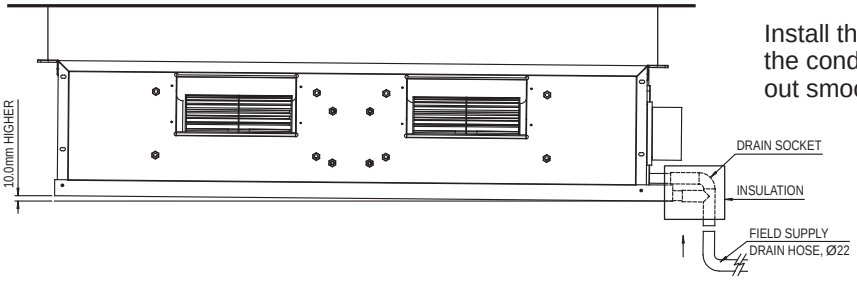
- Confirm the pitch of the hanging rod is 770mm x 622mm sharp.
- Hold the unit and hand it on the hanging rod with the nut and washer.
- Adjust the unit height to 35.0mm between the indoor unit bottom surface and the ceiling surface.
- Confirm with a level gauge that the unit is installed horizontally and tighten the nut and bolt to prevent unit falling and vibration.
- Open the ceiling board along the outer edge of the paper installation template.

Ceiling Concealed



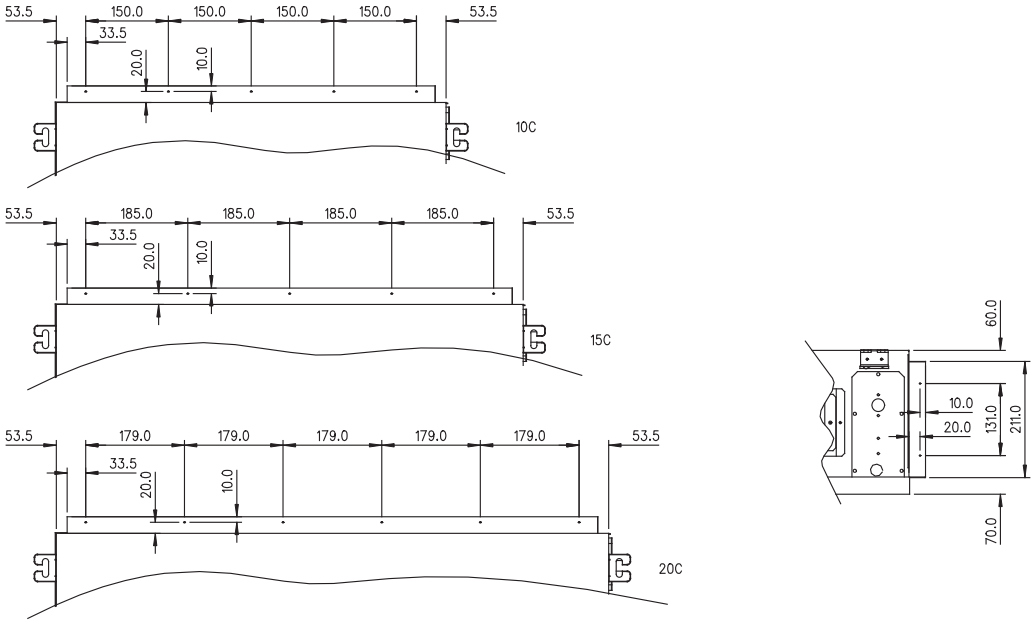
Preliminary Survey

- Electrical supply and installation is to confirm to local authority's (e.g. National Electrical Board) codes and regulations.
- Voltage supply fluctuation must not exceed ± 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 free from any obstacles in path of cool air discharge and warm air return, and must allow spreading or air throughout the room (near the centre of the room).
- Clearance must be provided for the indoor unit from the wall and obstacles as shown in the figure.
- Use the hanger supplied with the unit.
- Ensure the support is strong enough to withstand the weight of the unit.
- Use the supplied drain socket to connect the drain pipe.



Install the unit in such a way that the condensate water can flow out smoothly.

The diagrams below show the screws position for duct work connection.



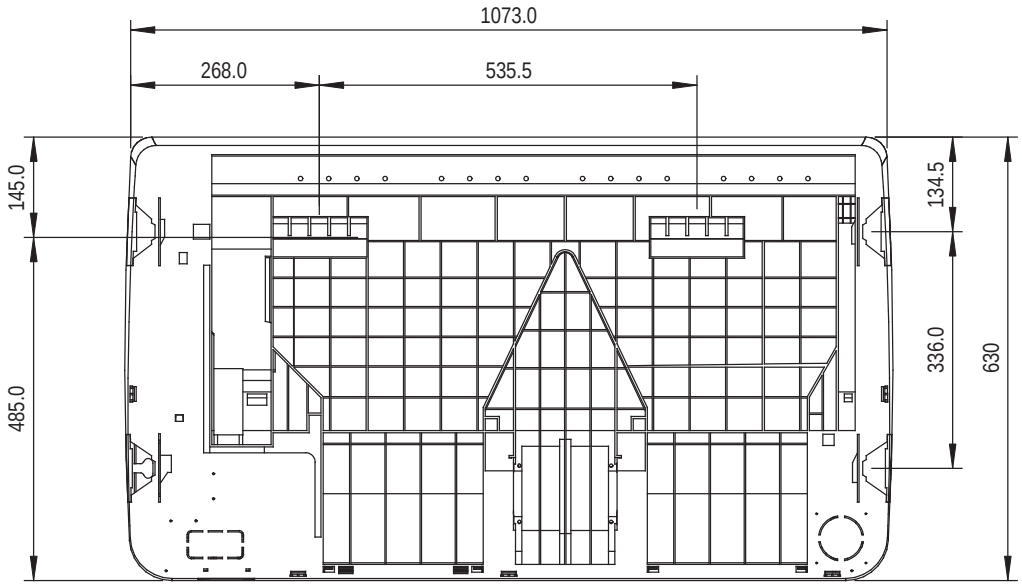
Ceiling Convertible

Preliminary Site Survey

- Electrical supply and installation is to confirm to local authority's (e.g. National Electrical Board) codes and regulations.
- Voltage supply fluctuation must not exceed ± 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.

Standard Mounting

Ensure that the overhead supports are strong enough to hold the weight of the unit. Position the hanger rods (wall mounting bracket for floor standing), and check for its alignment with the unit as shown in Fig. below. Also, check that the hangers are secured and the base of the fan coil unit is leveled in both horizontal directions, taking into account the gradient for drainage flow as recommended under section Piping and Drain Hose Installation.



Please ensure that the following steps are taken:

- Check the gradient for drainage flow as recommended in Figure A.
- Provide clearance for easy servicing and optimal air flow as shown in Figure B.
- The indoor unit must be installed such that there is no short circuit of the cool discharge air with the warm return air.
- Do not install the indoor unit where there is direct sunlight shining on the unit. The location should be suitable for piping and drainage installation. The unit must be a large distance away from the door.

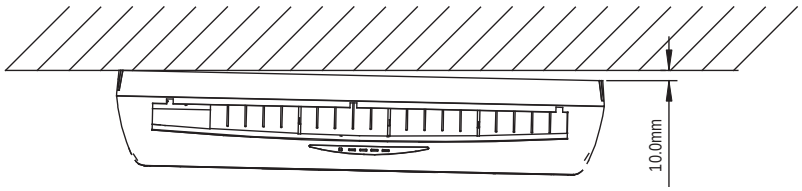
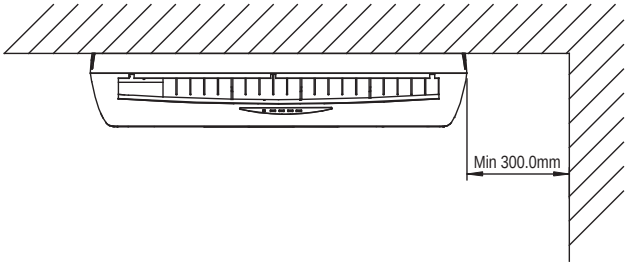
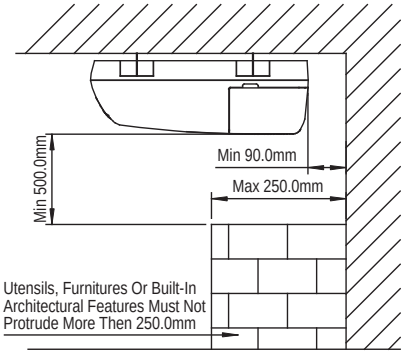
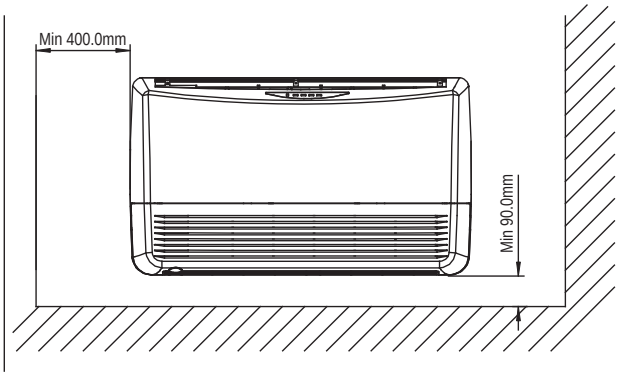


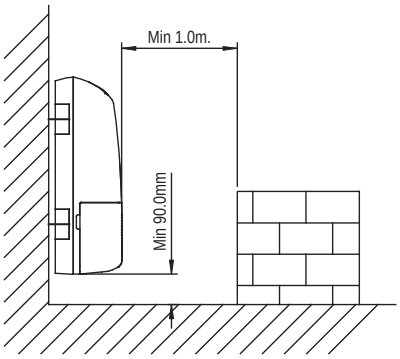
Fig.A





Under ceiling type





Floor standing type

Fig.B

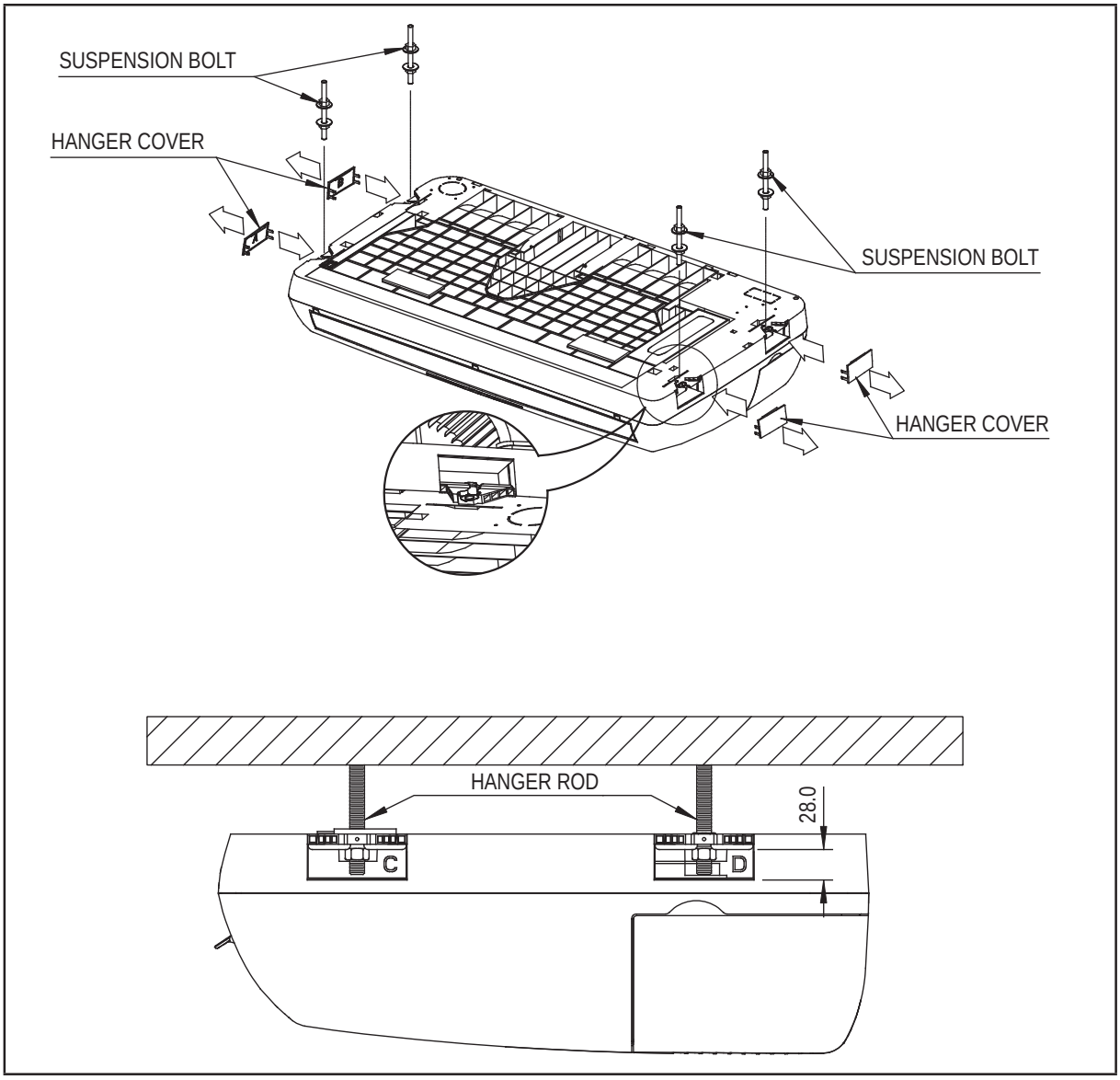
Under Ceiling Installation

Install the Suspension Bolts

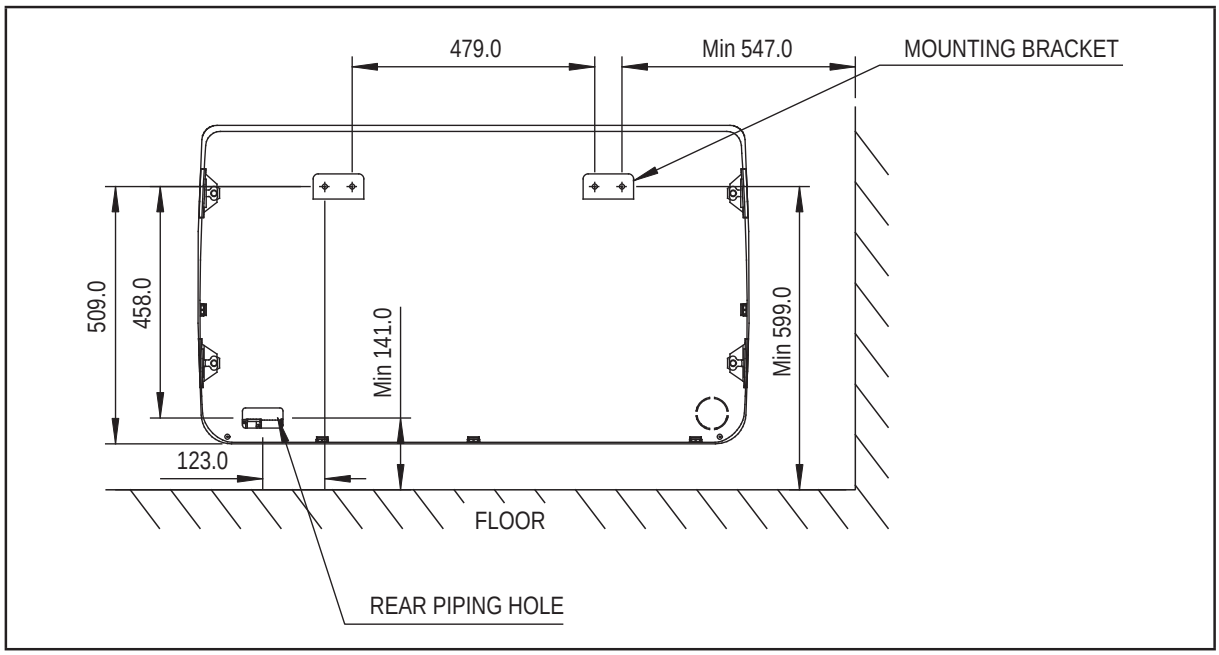
1. Install the suspension bolts so that it can support the indoor unit.
2. Adjust the distance to ceiling before installation.
3. Refer to the dimension given to install the unit.

Install the Indoor Unit

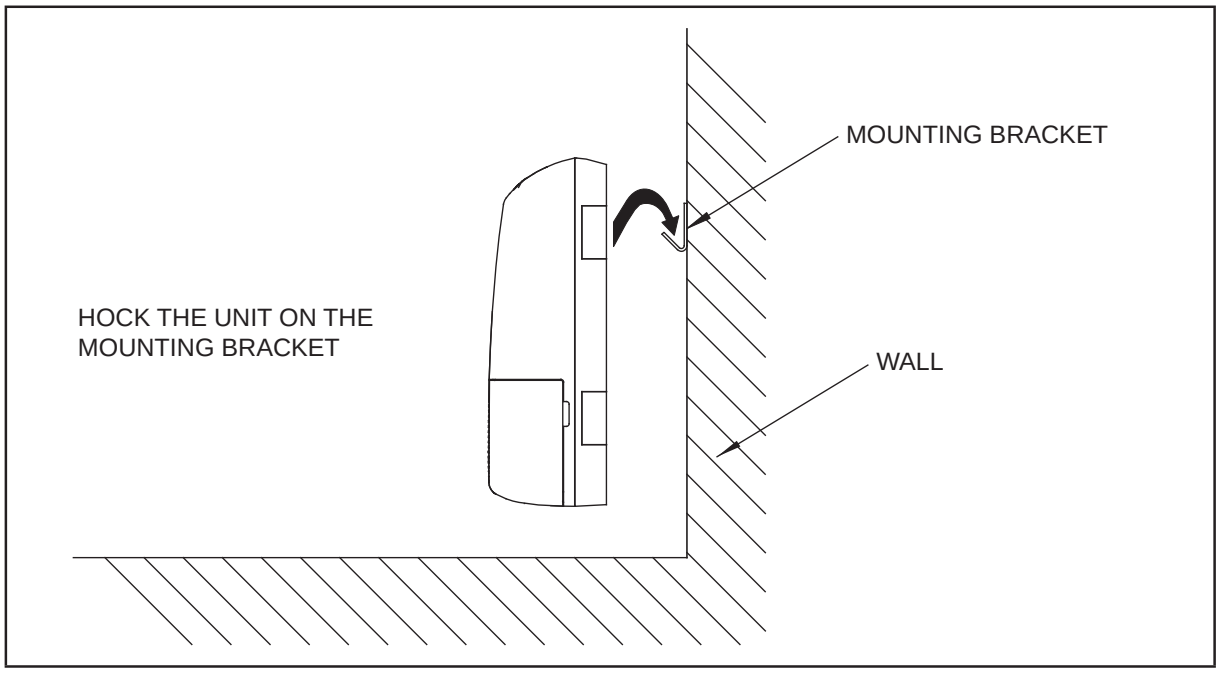
1. Insert the suspension bolts into the fittings of the hanger bracket.
2. Set the nuts and washer on the both side of the metal fittings.
3. Secure it with nuts.
4. Attach the hanger cover (4 pcs) to the units.



Floor Standing Installation



1. Refer to the dimension as illustrated when installing the mounting bracket.
2. Determine the pipe hose position using the rear piping hole. Drill the pipe hole at the slight downward slant to the outdoor side.

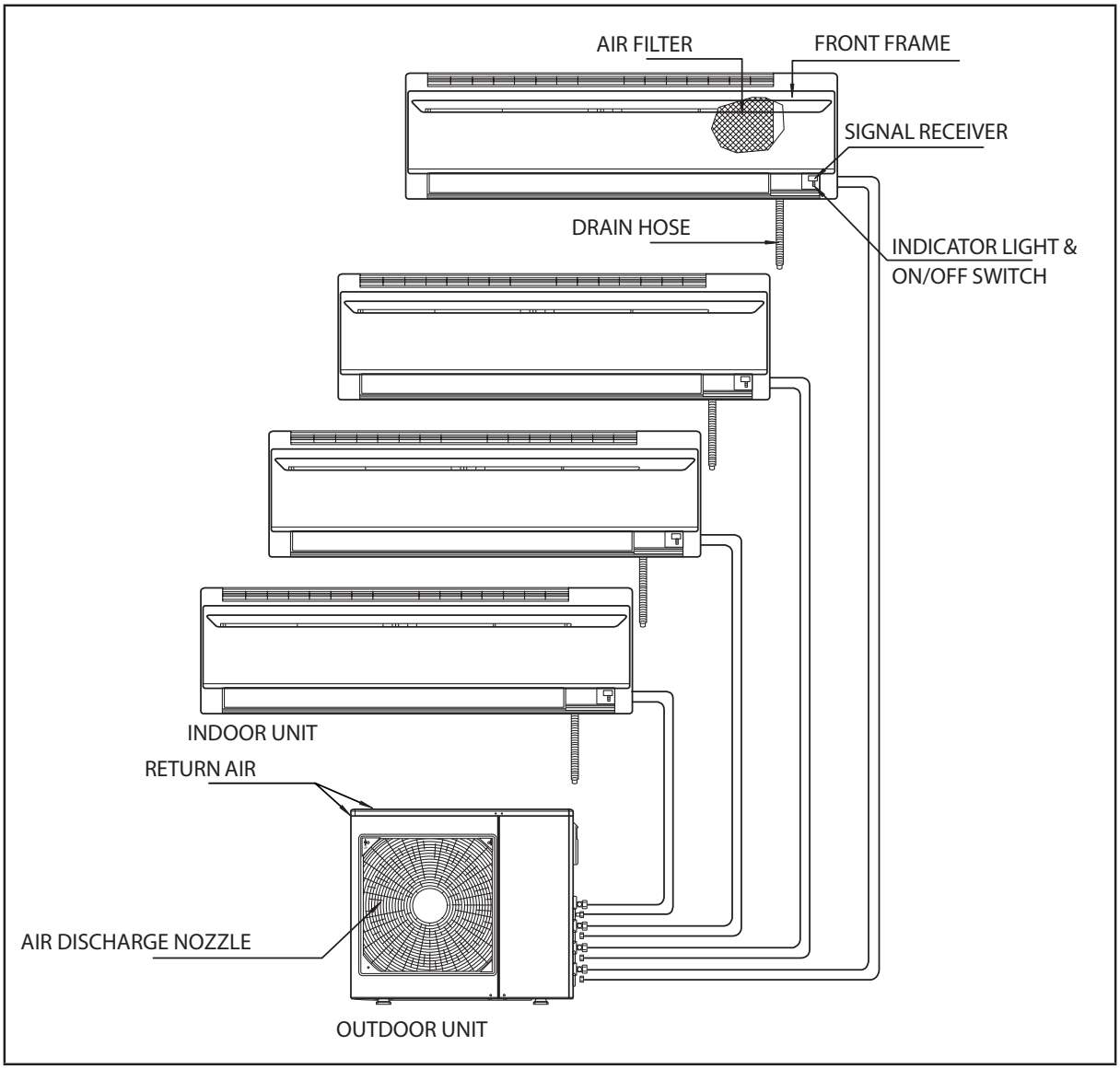


REFRIGERANT PIPING

Piping Length & Elevation

If the pipe is too long, both capacity and reliability of the unit will drop. As the number of bends increases, resistance to the flow of refrigerant system increases, thus lowering cooling capacity. As a result, the compressor may become defective. Always choose the shortest path and not exceed the maximum piping length as tabulated below.

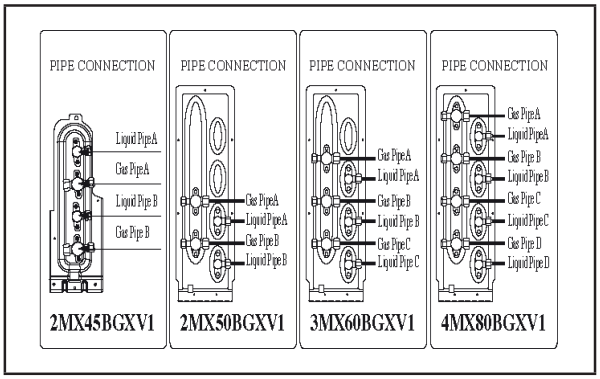
Model	Maximum Total Piping Length (m)	Single Indoor Maximum Piping Length (m)	Maximum Height Difference (m)	Pre-charged Total Piping Length (m)	Outdoor Unit Pre-charged (kg)	Amount of Additional Charge (g/m)
2MX45BGXV1 (2 Ports)	$L_1 + L_2 \leq 30$	$L \leq 20$	$H \leq 15$	15	1.2	20
2MX50BGXV1 (2 Ports)	$L_1 + L_2 \leq 50$	$L \leq 25$	$H \leq 15$	30	2.0	20
3MX60BGXV1 (3 Ports)	$L_1 + L_2 + L_3 \leq 60$	$L \leq 25$	$H \leq 15$	30	2.6	20
4MX80BGXV1 (4 Ports)	$L_1 + L_2 + L_3 + L_4 \leq 60$	$L \leq 25$	$H \leq 15$	30	2.6	20



* Remark: Applicable for Wall Mounted, Ceiling Cassette, Ceiling Concealed, Ceiling Convertible Unit.

Piping Connection To The Units

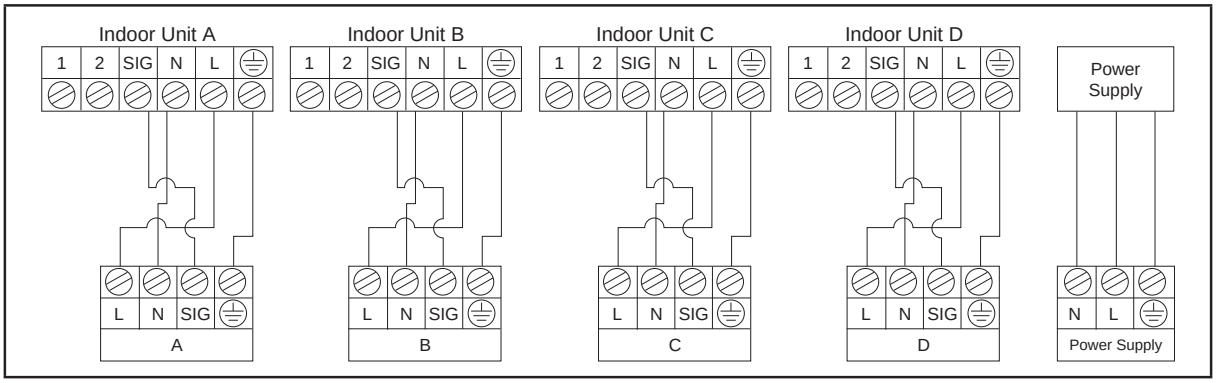
- The outdoor unit is equipped with two to four sets of flare joints depending on O/D unit model. Refer to the table below for flare joint size and location.



Model	Pipe	A	B	C	D
2MX45BGXV1	Liquid	1/4”	1/4”	-	-
	Gas	3/8”	3/8”	-	-
2MX50BGXV1	Liquid	1/4”	1/4”	-	-
	Gas	1/2”	1/2”	-	-
3MX60BGXV1	Liquid	1/4”	1/4”	1/4”	-
	Gas	3/8”	1/2”	1/2”	-
4MX80BGXV1	Liquid	1/4”	1/4”	1/4”	1/4”
	Gas	3/8”	3/8”	1/2”	1/2”

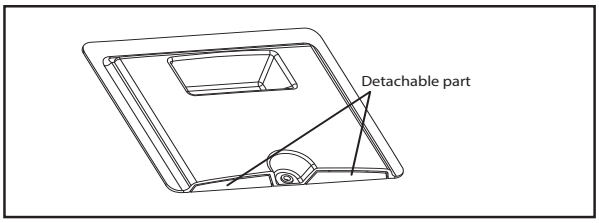
ELECTRICAL WIRING CONNECTION

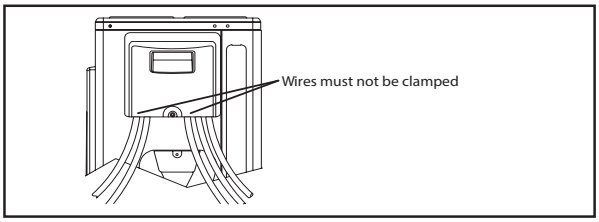
IMPORTANT: The figures shown in the table are for information purpose only. They should be checked and selected to comply with the local/national codes of regulations. This is also to the type of installation and conductors used.

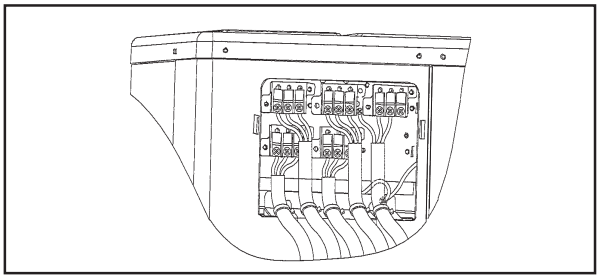


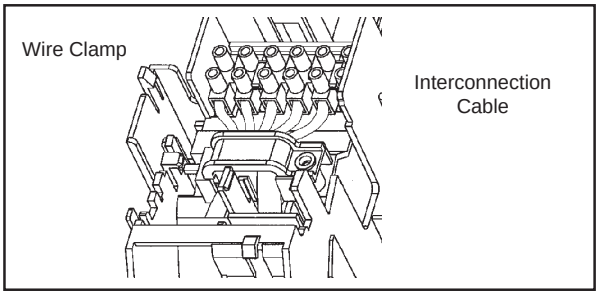
⚠ There must be a double pole switch with a minimum 3 mm contact gap and fuse / circuit breaker as recommended in the fixed installation circuit.

- All wiring must be connected accordingly to the diagram above, with reference to the piping connection. Mismatch any wiring with different piping will cause severe damage to the system.
- All wires must be firmly connected.
- All wires must not touch the refrigerant piping, compressor or any moving parts of the fan motor.
- The connecting wires between the indoor unit and the outdoor unit must be clamped on the wire clamps and the cable tie (push releasable) at the indoor unit and outdoor unit respectively as shown in the figures.
- The power supply cord must be equivalent to H07RN-F (245IEC57) or higher.
- Remove the detachable part of the access cover to allow wire routing.
- All wires must not be clamped by the access panel cover.









* The figures shown in the table are for information purpose only. They should be checked and selected to comply with the local/national codes of regulations. This is also subject to the type of installation and conductors used.
** The appropriate voltage range should be checked with label data on the unit.

Model		FTXN25/35MV1	FTXN50MV1
Voltage Range**		220V - 240V / 1Ph / 50Hz+ ⏚	
Power supply cable size* Number of core	mm^2	3.0 3	3.0 3
Interconnection cable size* Number of core	mm^2	1.5 4	2.5 4
Recommended time delay fuse*	A	25	25

Model		FFQ25CXV1	FFQ35CXV1	FFQ50CXV1
Voltage Range**		220V - 240V / 1Ph / 50Hz+ ⏚		
Power supply cable size* Number of conductors	mm^2	3.0 3	3.0 3	3.0 3
Interconnection cable size* Number of conductors	mm^2	1.5 4	1.5 4	2.5 4
Recommended time delay fuse*	A	25	25	25

Model		FDMQ25C2XV1	FDMQ35CXV1	FDMQ50CXV1
Voltage Range**		220V - 240V / 1Ph / 50Hz+ ⏚		
Power supply cable size* Number of conductors	mm^2	3.0 3	3.0 3	3.0 3
Interconnection cable size* Number of conductors	mm^2	1.5 4	1.5 4	2.5 4
Recommended time delay fuse*	A	25	25	25

Model		FLQ35EXV1	FLQ50EXV1
Voltage Range**		220V - 240V / 1Ph / 50Hz+ ⏚	
Power supply cable size* Number of conductors	mm^2	3.0 3	3.0 3
Interconnection cable size* Number of conductors	mm^2	1.5 4	2.5 4
Recommended time delay fuse*	A	25	25

Engineering & Physical Data

Engineering Data - MX Series (R410A model)

MODEL	OUTDOOR UNIT			2MX45BGXV1	2MX50BGXV1	3MX60BGXV1	4MX80BGXV1
	TYPE			1-to-2		1-to-3	1-to-4
NOMINAL COOLING CAPACITY			Btu/h	13650 (4400 ~15350)	18400 (5100 ~ 21200)	22200 (3400 ~ 26100)	26100 (4100 ~ 31000)
			W	4000 (1300 ~ 4500)	5400 (1500 ~ 6200)	6500 (1000 ~ 7650)	7650 (1200 ~ 9100)
NOMINAL HEATING CAPACITY			Btu/h	15000 (2700 ~ 17400)	21800 (2400 ~ 23500)	25200 (3100 ~ 28000)	28700 (3100 ~ 30700)
			W	4400 (800 ~ 5100)	6400 (700 ~ 6900)	7400 (900 ~ 8200)	8400 (900 ~ 9000)
NOMINAL TOTAL INPUT POWER (COOLING)			W	1050 (330 ~ 1400)	1378 (380 ~ 1720)	1702 (400 ~ 2370)	2113 (430 ~ 2950)
NOMINAL TOTAL INPUT POWER (HEATING)			W	1040 (250 ~ 1450)	1492 (270 ~ 1680)	1749 (350 ~ 2130)	2054 (380 ~ 2550)
NOMINAL RUNNING CURRENT (COOLING)			A	4.82 (1.97 ~ 6.33)	6.15 (2.88 ~ 7.58)	7.58 (2.94 ~ 10.47)	9.30 (3.13 ~ 12.91)
NOMINAL RUNNING CURRENT (HEATING)			A	4.76 (1.45 ~ 6.50)	6.62 (2.03 ~ 7.46)	7.72 (2.59 ~ 9.41)	8.98 (2.70 ~ 11.16)
EER			W/W	3.81	3.91	3.82	3.62
COP			W/W	4.23	4.28	4.23	4.09
REFRIGERANT CHARGE			kg	1.20	2.00	2.6	
POWER SOURCE			V/Ph/Hz	220 - 240 / 1 / 50			
REFRIGERANT TYPE				R410A			
OUTDOOR UNIT	AIR FLOW		l/s / CFM	512 / 1076	780 / 1638	850 / 1786	
	SOUND PRESSURE LEVEL		dBA	47	48	49	
	UNIT DIMENSION	HEIGHT X WIDTH X DEPTH	mm	550 x 765 x 285	756 x 855 x 328		
	PACKING DIMENSION	HEIGHT X WIDTH X DEPTH	mm	610 x 895 x 360	793 x 990 x 415		
	UNIT WEIGHT		kg	34	45	55	
	PIPE CONNECTION	TYPE		FLARE			
		SIZE LIQUID	mm	2 x 6.35		3 x 6.35	4 x 6.35
		SIZE GAS	mm	2 x 9.52	2 x 12.7	1 x 9.52 2 x 12.7	
	FAN	TYPE		PROPELLER			
		DRIVE		DIRECT			
	FAN MOTOR	TYPE		DC BRUSHLESS			
		INDEX OF PROTECTION (IP)		IP23	IP34		
		INSULATION GRADE		Class E			
		RATED INPUT POWER	W	35	61	79	
		RATED RUNNING CURRENT	A	0.38	0.73	0.91	
		MOTOR OUTPUT	W	50	61		
	COMPRESSOR	TYPE		HERMATIC SWING COMPRESSOR			
		OIL TYPE		DAPHNE FVC50K	POLYESTER OIL (PVE)		
		OIL AMOUNT	cm^3	450	650	750	
		RATED INPUT POWER (COOLING)	W	-	1183	1420	
		RATED INPUT POWER (HEATING)	W	-	1264	1491	
		RATED RUNNING CURRENT (COOLING)	A	-	4.69	6.7	
		RATED RUNNING CURRENT (HEATING)	A	-	4.09	5.58	
	COIL	TUBE MATERIAL		INNER GROOVE COPPER	SEAMLESS INNER GROOVE COPPER		
		TUBE DIAMETER	mm	7			
		FIN MATERIAL		ALUMINIUM (HYDROPHILIC FIN)			
		FIN FACE AREA	m^2	0.405	0.62		
		FIN ROW		2			
	CASING		COLOUR	Ivory White			

[1] ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).
[2] A5MSY18BR IS APPLICABLE WITH 5WMY10/15 LR BUT NOT WITH 5WMY10/15 JR (FOR WM UNIT).

COOLING	HEATING
INDOOR: 27°C DB / 19°C WB	INDOOR: 20°C DB
OUTDOOR: 35°C DB / 24°C WB	OUTDOOR: 8°C DB / 6°C WB

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Engineering Data - FTXN-MV1 Series (R410A model)

MODEL		INDOOR UNIT			FTXN25MV1	FTXN35MV1	FTXN50MV1
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTO LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT)		
		OPERATION			LCD REMOTE CONTROL		
	AIR FLOW	TURBO		l/s / CFM	178 / 378	185 / 392	273 / 578
		HIGH		l/s / CFM	163 / 345	169 / 358	250 / 529
		MEDIUM		l/s / CFM	128 / 272	133 / 282	222 / 471
		LOW		l/s / CFM	101 / 215	109 / 232	197 / 418
		QUIET		l/s / CFM	78 / 165		177 / 374
	SOUND PRESSURE LEVEL (T/H/M/L/Q)			dBA	41/40/34/29/21	42/41/34/30/22	44/40/38/35/32
	UNIT DIMENSION		HEIGHT X WIDTH X DEPTH	mm	288 X800 X 206		310 X 1065 X 224
	PACKING DIMENSION		HEIGHT X WIDTH X DEPTH	mm	344 X 874 X 274		386 X 1136 X 314
	UNIT WEIGHT			kg	9		14
	CONDENSATE DRAIN SIZE			mm	19.05		
	FAN	TYPE			CROSS FLOW		
		DRIVE			DIRECT		
	FAN MOTOR	TYPE			INDUCTION		BRUSHLESS
		INDEX OF PROTECTION (IP)			IP44		IP20
		INSULATION GRADE			CLASS E		
		RATED INPUT POWER		W	37	42	37
		RATED RUNNING CURRENT		A	0.19	0.21	0.32
		MOTOR OUTPUT		W	18		40
		POLES			4		8
	COIL	TUBE	MATERIAL		Seamless Inner Groove Copper		
			DIAMETER	mm	7		
		FIN	MATERIAL		ALUMINIUM (HYDROPHILIC FIN)		
			FACE AREA	m²	0.18		0.29
			ROW		2		
	AIR QUALITY	FILTER	TYPE		TITANIUM APATITE		
			QUANTITY	pc	2		
	CASING			COLOUR	WHITE		

ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).

COOLING	HEATING
INDOOR: 27°C DB / 19°C WB	INDOOR: 20°C DB
OUTDOOR: 35°C DB / 24°C WB	OUTDOOR: 8°C DB / 6°C WB

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Engineering Data - FFQ-CXV1 Series (R410A model)

MODEL		INDOOR UNIT			FFQ25CXV1	FFQ35CXV1	FFQ50CXV1
		OUTDOOR UNIT			RX25DGXV1	RX35DGXV1	RX50CGXV1
INDOOR UNIT	CONTROL	AIR DISCHARGE			4 WAY AUTOMATIC LOUVER (UP & DOWN)		
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL		
	AIR FLOW	HIGH		l/s / CFM	189 / 400	193 / 410	212 / 450
		MEDIUM		l/s / CFM	184 / 390	184 / 390	203 / 430
		LOW		l/s / CFM	175 / 370	170 / 360	193 / 410
	SOUND PRESSURE LEVEL (H/M/L)			dBA	44 / 41 / 36	45 / 42 / 38	47 / 46 / 44
	UNIT DIMENSION		HEIGHT X WIDTH X DEPTH	mm	250 X 570 X 570		
	WITH PANEL		HEIGHT X WIDTH X DEPTH	mm	295 X 640 X 640		
	PACKING DIMENSION		HEIGHT X WIDTH X DEPTH	mm	317 X 630 X 630		
	PANEL		HEIGHT X WIDTH X DEPTH	mm	127 X 700 X 700		
	UNIT WEIGHT (UNIT + PANEL)			kg	16 + 2	16 + 2	
	CONDENSATE DRAIN SIZE			mm	19.1		
	FAN	TYPE			TURBO		
		DRIVE			DIRECT		
	FAN MOTOR	TYPE			INDUCTION		
		INDEX OF PROTECTION (IP)			IP20		
		INSULATION GRADE			CLASS B		
		RATED INPUT POWER		W	62	62	74
		RATED RUNNING CURRENT		A	0.28	0.28	0.32
		MOTOR OUTPUT		W	18	18	22
		POLES			6		
	COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER		
			DIAMETER	mm	7.00		
		FIN	MATERIAL		ALUMINIUM (HYDROPHILIC FIN)		
			FACE AREA	m²	0.25		
			ROW		2		
	AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER		
			QUANTITY	pc	1		
	CASING			COLOUR	WHITE		

ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).

COOLING	HEATING
INDOOR: 27°C DB / 19°C WB	INDOOR: 20°C DB
OUTDOOR: 35°C DB / 24°C WB	OUTDOOR: 7°C DB / 6°C WB

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Engineering Data - FDMQ-C(2)XV1 Series (R410A model)

MODEL		INDOOR UNIT			FDMQ25C2XV1	FDMQ35CXV1	FDMQ50CXV1	
INDOOR UNIT	CONTROL	AIR DISCHARGE			DUCTED			
		OPERATION			WIRED MICROCOMPUTER REMOTE CONTROL			
	AIR FLOW	HIGH		l/s / CFM	118 / 250	194 / 410	269 / 570	
		MEDIUM		l/s / CFM	111 / 235	175 / 370	255 / 540	
		LOW		l/s / CFM	99 / 210	118 / 250	213 / 450	
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa	29 / 20 / 10	29 / 20 / 10		
	SOUND PRESSURE LEVEL (H/M/L)			dBA	35 / 32 / 26	37 / 34 / 29	38 / 36 / 34	
	UNIT DIMENSION	HEIGHT X WIDTH X DEPTH		mm	261 X 905 X 411		261 X 1065 X 411	
	PACKING DIMENSION	HEIGHT X WIDTH X DEPTH		mm	376 X 1091 X 541		376 X 1251 X 541	
	UNIT WEIGHT (UNIT + PANEL)			kg	21	21	22	
	CONDENSATE DRAIN SIZE			mm	19.1			
	FAN	TYPE			SIROCCO			
		DRIVE			DIRECT			
	FAN MOTOR	TYPE			INDUCTION			
		INDEX OF PROTECTION (IP)			N/A			
		INSULATION GRADE			CLASS B	CLASS B	CLASS B	
		RATED INPUT POWER		W	100	107	133	
		RATED RUNNING CURRENT		A	0.44	0.48	0.61	
		MOTOR OUTPUT		W	40	50	80	
		POLES			4			
	COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER			
			DIAMETER	mm	7.00			
		FIN	MATERIAL		ALUMINIUM (HYDROPHILIC FIN)			
			FACE AREA	m²	0.13		0.16	
			ROW		3			
	AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER			
			QUANTITY	pc	1			
	CASING			COLOUR	WITHOUT POWDER PAINT			

ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).

COOLING	HEATING
INDOOR: 27°C DB / 19°C WB	INDOOR: 20°C DB
OUTDOOR: 35°C DB / 24°C WB	OUTDOOR: 7°C DB / 6°C WB

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Engineering Data - FLQ-EXV1 Series (R410A model)

MODEL		INDOOR UNIT			FLQ35EXV1	FLQ50EXV1		
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)			
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL			
	AIR FLOW	HIGH		l/s / CFM	240 / 508	245 / 520		
		MEDIUM		l/s / CFM	182 / 386	217 / 460		
		LOW		l/s / CFM	165 / 350	192 / 406		
	SOUND PRESSURE LEVEL (H/M/L)			dBA	46 / 38 / 35	50 / 43 / 41		
	UNIT DIMENSION	HEIGHT X WIDTH X DEPTH		mm	218 X 1080 X 630			
	PACKING DIMENSION	HEIGHT X WIDTH X DEPTH		mm	297 X 1197 X 740			
	UNIT WEIGHT (UNIT + PANEL)			kg	25	27		
	CONDENSATE DRAIN SIZE			mm	19.1			
	FAN	TYPE			SIROCCO			
		DRIVE			DIRECT			
	FAN MOTOR	TYPE			INDUCTION			
		INDEX OF PROTECTION (IP)			IP20			
		INSULATION GRADE			CLASS B			
		RATED INPUT POWER		W	84	101		
		RATED RUNNING CURRENT		A	0.37	0.46		
		MOTOR OUTPUT		W	40	50		
		POLES			4			
	COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER			
			DIAMETER	mm	7.00			
		FIN	MATERIAL		ALUMINIUM (HYDROPHILIC FIN)			
			FACE AREA	m²	0.27			
			ROW		2	3		
	AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER			
			QUANTITY	pc	2			
	CASING			COLOUR	WHITE			

ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).

COOLING	HEATING
INDOOR: 27°C DB / 19°C WB	INDOOR: 20°C DB
OUTDOOR: 35°C DB / 24°C WB	OUTDOOR: 7°C DB / 6°C WB

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Performance Data

Model: 2MX45BGXV1

Cooling Mode

Combination of indoor unit *	Each capacity (kW)		Total capacity (kW)		Total input (W)		EER	Total current (A)	
	A room	B room	Rated	Max	Rated	Max	Rated	Rated	Max
25	2.50	---	2.50	3.00	620	820	4.03	2.90	3.80
35	3.50	---	3.50	4.00	1080	1410	3.24	4.90	6.50
25 + 25	1.95	1.95	3.90	4.30	1030	1240	3.79	4.73	5.70
25 + 35	1.67	2.33	4.00	4.50	1050	1400	3.81	4.82	6.33

** Applicable for indoor size 15 using Ø9.52mm gas pipe*

Heating Mode

Combination of indoor unit *	Each capacity (kW)		Total capacity (kW)		Total input (W)		COP	Total current (A)	
	A room	B room	Rated	Max	Rated	Max	Rated	Rated	Max
25	3.00	---	3.00	3.70	850	1270	3.53	3.90	5.90
35	3.80	---	3.80	4.40	1290	1730	2.95	5.90	7.90
25 + 25	2.18	2.18	4.36	4.70	1040	1200	4.20	4.73	5.40
25 + 35	1.94	2.46	4.40	5.10	1040	1450	4.23	4.76	6.50

** Applicable for indoor size 15 using Ø9.52mm gas pipe*
Note : It is not recommended to connect the multi-split outdoor to single indoor only.

Model: 2MX50BGXV1

Cooling Mode

Combination of indoor unit *	Each capacity (kW)		Total capacity (kW)		Total input (W)		EER	Total current (A)	
	A room	B room	Rated	Max	Rated	Max	Rated	Rated	Max
25	2.50	---	2.50	3.00	620	800	4.03	2.80	3.60
35	3.50	---	3.50	3.70	980	1280	3.57	4.30	5.60
50	---	5.00	5.00	5.80	1620	2100	3.09	7.10	9.20
25 + 25	2.50	2.50	5.00	5.80	1470	1910	3.40	6.40	8.40
25 + 35	2.13	2.97	5.10	6.00	1550	2140	3.29	6.90	9.40
25 + 50	1.75	3.45	5.20	6.00	1500	2070	3.47	6.60	9.10
35 + 35	2.55	2.55	5.10	6.00	1400	2140	3.64	6.20	9.40
35 + 50	2.22	3.18	5.40	6.20	1378	1720	3.92	6.10	7.60

** Applicable for indoor size 15 using Ø9.52mm gas pipe*

Cooling Mode

Combination of indoor unit *	Each capacity (kW)		Total capacity (kW)		Total input (W)		EER	Total current (A)	
	A room	B room	Rated	Max	Rated	Max	Rated	Rated	Max
25 + 35	2.17	3.03	5.20	6.00	1550	2140	3.35	6.90	9.40
35 + 35	2.60	2.60	5.20	6.00	1400	2140	3.71	6.20	9.40
35 + 50	2.22	3.18	5.40	6.20	1378	1720	3.92	6.10	7.60

** Applicable for indoor size 15 using Ø12.70mm gas pipe*
Note : It is not recommended to connect the multi-split outdoor to single indoor only.

Heating Mode

Combination of indoor unit *	Each capacity (kW)		Total capacity (kW)		Total input (W)		COP	Total current (A)	
	A room	B room	Rated	Max	Rated	Max	Rated	Rated	Max
25	3.00	---	3.00	4.00	1000	1260	3.00	4.50	5.60
35	3.80	---	3.80	4.50	1250	1680	3.04	5.60	7.50
50	---	5.60	5.60	6.50	1850	2510	3.03	8.20	11.00
25 + 25	3.00	3.00	6.00	6.50	1570	2150	3.82	6.90	9.50
25 + 35	2.54	3.56	6.10	6.50	1640	2000	3.72	7.20	8.80
25 + 50	2.03	4.07	6.10	6.70	1600	1800	3.81	7.00	7.90
35 + 35	3.05	3.05	6.10	6.50	1600	1970	3.81	7.00	8.70
35 + 50	2.64	3.76	6.40	6.90	1492	1680	4.29	6.60	7.50

** Applicable for indoor size 15 using Ø9.52mm and Ø12.70mm gas pipe*
Note : It is not recommended to connect the multi-split outdoor to single indoor only.

Model: 3MX60BGXV1

Cooling Mode

Combination of indoor unit *	Each capacity (kW)			Total capacity (kW)		Total input (W)		EER	Total current (A)	
	A room	B room	C room	Rated	Max	Rated	Max	Rated	Rated	Max
25	2.50	---	---	2.50	3.00	590	850	4.24	2.70	3.80
35	3.50	---	---	3.50	3.70	910	960	3.85	4.10	4.20
50	---	---	5.00	5.00	5.80	1700	2200	2.94	7.50	9.70
25 + 25	2.50	2.50	---	5.00	5.90	1580	2000	3.16	7.00	8.80
25 + 35	2.46	3.44	---	5.90	6.40	2060	2370	2.86	9.10	10.40
25 + 50	2.17	---	4.33	6.50	7.00	2300	2750	2.83	10.10	12.10
35 + 35	3.11	3.11	---	6.22	7.40	2250	3190	2.76	9.90	14.10
35 + 50	2.62	---	3.75	6.37	7.40	2300	3200	2.77	10.30	14.20
50 + 50	---	3.22	3.22	6.44	7.80	1850	2930	3.48	8.30	12.90
25 + 25 + 25	2.16	2.16	2.16	6.48	7.80	2200	2750	2.95	9.70	12.10
25 + 25 + 35	1.91	1.91	2.68	6.50	7.90	2120	2800	3.07	9.40	12.20
25 + 25 + 50	1.63	1.63	3.24	6.50	8.10	1880	2900	3.46	8.30	12.80
25 + 35 + 35	1.68	2.36	2.36	6.40	8.00	2030	2650	3.15	8.90	11.70
25 + 35 + 50	1.48	2.07	2.95	6.50	8.40	1702	2800	3.82	7.60	12.30
35 + 35 + 35	2.16	2.16	2.16	6.48	8.00	2000	2900	3.24	9.00	12.70

** Applicable for indoor size 15 using Ø9.52mm gas pipe*

Cooling Mode

Combination of indoor unit *	Each capacity (kW)			Total capacity (kW)		Total input (W)		EER	Total current (A)	
	A room	B room	C room	Rated	Max	Rated	Max	Rated	Rated	Max
25 + 35	2.50	3.50	---	6.00	6.40	2060	2370	2.91	9.10	10.40
35 + 35	3.22	3.22	---	6.44	7.40	2250	3190	2.86	9.90	14.10
35 + 50	2.68	---	3.82	6.50	7.40	2300	3200	2.83	10.30	14.20
25 + 25 + 50	1.91	1.91	2.68	6.50	7.90	2120	2800	3.07	9.40	12.20
25 + 35 + 35	1.70	2.40	2.40	6.50	8.00	2030	2650	3.20	8.90	11.70
25 + 35 + 50	1.48	2.07	2.95	6.50	8.40	1702	2800	3.82	7.60	12.30
35 + 35 + 35	2.16	2.16	2.16	6.48	8.00	1900	2900	3.41	8.50	12.70

** Applicable for indoor size 15 using Ø12.70mm gas pipe*
Note : It is not recommended to connect the multi-split outdoor to single indoor only.

Heating Mode

Combination of indoor unit *	Each capacity (kW)			Total capacity (kW)		Total input (W)		COP	Total current (A)	
	A room	B room	C room	Rated	Max	Rated	Max	Rated	Rated	Max
25	3.00	---	---	3.00	4.00	1030	1370	2.91	4.70	6.10
35	3.80	---	---	3.80	4.50	1420	1610	2.68	6.50	7.10
50	---	---	5.60	5.60	5.70	1840	2260	3.04	8.40	9.90
25 + 25	3.60	3.60	---	7.20	7.50	2240	2560	3.21	9.90	11.20
25 + 35	3.08	4.32	---	7.40	7.90	2120	2580	3.49	9.40	11.30
25 + 50	2.47	---	4.93	7.40	8.60	2050	2700	3.61	9.00	11.80
35 + 35	3.66	3.66	---	7.32	8.60	2300	3000	3.18	10.20	13.20
35 + 50	3.05	---	4.35	7.40	8.60	2040	2650	3.63	9.00	11.60
50 + 50	---	3.66	3.66	7.32	8.60	1860	2680	3.94	8.30	11.80
25 + 25 + 25	2.46	2.46	2.46	7.38	8.40	1870	2750	3.95	8.20	12.10
25 + 25 + 35	2.18	2.18	3.04	7.40	8.40	1860	2720	3.98	8.20	11.90
25 + 25 + 50	1.85	1.85	3.70	7.40	8.60	1800	2660	4.11	8.00	11.60
25 + 35 + 35	1.94	2.73	2.73	7.40	8.40	2090	2680	3.54	9.30	11.70
25 + 35 + 50	1.68	2.36	3.36	7.40	8.60	1749	2500	4.23	7.80	10.90
35 + 35 + 35	2.46	2.46	2.46	7.38	8.40	1850	2700	3.99	8.10	11.80

** Applicable for indoor size 15 using Ø9.52mm and Ø12.70mm gas pipe*
Note : It is not recommended to connect the multi-split outdoor to single indoor only.

Model: 4MX80BGXV1

Cooling Mode

Combination of indoor unit *	Each capacity (kW)				Total capacity (kW)		Total input (W)		EER	Total current (A)	
	A room	B room	C room	D room	Rated	Max	Rated	Max	Rated	Rated	Max
25	2.50	---	---	---	2.50	3.00	590	850	4.24	2.70	3.80
35	3.50	---	---	---	3.50	3.70	910	960	3.85	4.10	4.20
50	---	---	5.00	---	5.00	5.80	1700	2200	2.94	7.50	9.70
25 + 25	2.50	2.50	---	---	5.00	5.90	1580	2000	3.16	7.00	8.80
25 + 35	2.46	3.44	---	---	5.90	6.40	2060	2370	2.86	9.10	10.40
25 + 50	2.17	---	4.33	---	6.50	7.00	2300	2750	2.83	10.10	12.10
35 + 35	3.40	3.40	---	---	6.80	7.40	2700	3190	2.52	11.90	14.10
35 + 50	3.01	---	4.29	---	7.30	7.40	2600	3200	2.81	11.50	14.20
50 + 50	---	3.65	3.65	---	7.30	7.80	2490	2930	2.93	11.20	12.90
25 + 25 + 25	2.50	2.50	2.50	---	7.50	7.80	2450	2750	3.06	10.90	12.10
25 + 25 + 35	2.21	2.21	3.08	---	7.50	7.90	2430	2800	3.09	10.60	12.20
25 + 25 + 50	1.91	1.91	3.83	---	7.65	8.10	2400	2900	3.19	10.50	12.80
25 + 35 + 35	1.98	2.76	2.76	---	7.50	8.00	2450	2650	3.06	10.80	11.70
25 + 35 + 50	1.71	2.40	3.42	---	7.53	8.40	2300	2800	3.27	10.20	12.30
35 + 35 + 35	2.50	2.50	2.50	---	7.50	8.00	2400	2900	3.13	10.70	12.70
25 + 25 + 25 + 25	1.91	1.91	1.91	1.91	7.64	8.40	2200	2680	3.47	9.80	11.80
25 + 25 + 25 + 35	1.74	1.74	1.74	2.43	7.65	9.10	2113	2950	3.62	9.30	13.00

** Applicable for indoor size 15 using Ø9.52mm gas pipe*

Cooling Mode

Combination of indoor unit *	Each capacity (kW)				Total capacity (kW)		Total input (W)		EER	Total current (A)	
	A room	B room	C room	D room	Rated	Max	Rated	Max	Rated	Rated	Max
25 + 35	2.50	3.50	---	---	6.00	6.40	2060	2370	2.91	9.10	10.40
35 + 35	3.45	3.45	---	---	6.90	7.40	2650	3190	2.60	11.70	14.10
35 + 50	3.01	---	4.29	---	7.30	7.40	2600	3200	2.81	11.50	14.20
25 + 25 + 50	2.25	2.25	3.15	---	7.65	7.90	2430	2800	3.15	10.60	12.20
25 + 35 + 35	2.01	2.82	2.82	---	7.65	8.00	2400	2650	3.19	10.50	11.70
25 + 35 + 50	1.74	2.43	3.48	---	7.65	8.40	2370	2800	3.23	10.50	12.30
35 + 35 + 35	2.55	2.55	2.55	---	7.65	8.00	2200	2900	3.48	9.70	12.70
25 + 25 + 25 + 35	1.74	1.74	1.74	2.43	7.65	9.10	2113	2950	3.62	9.30	13.00

** Applicable for indoor size 15 using Ø12.70mm gas pipe*
Note : It is not recommended to connect the multi-split outdoor to single indoor only.

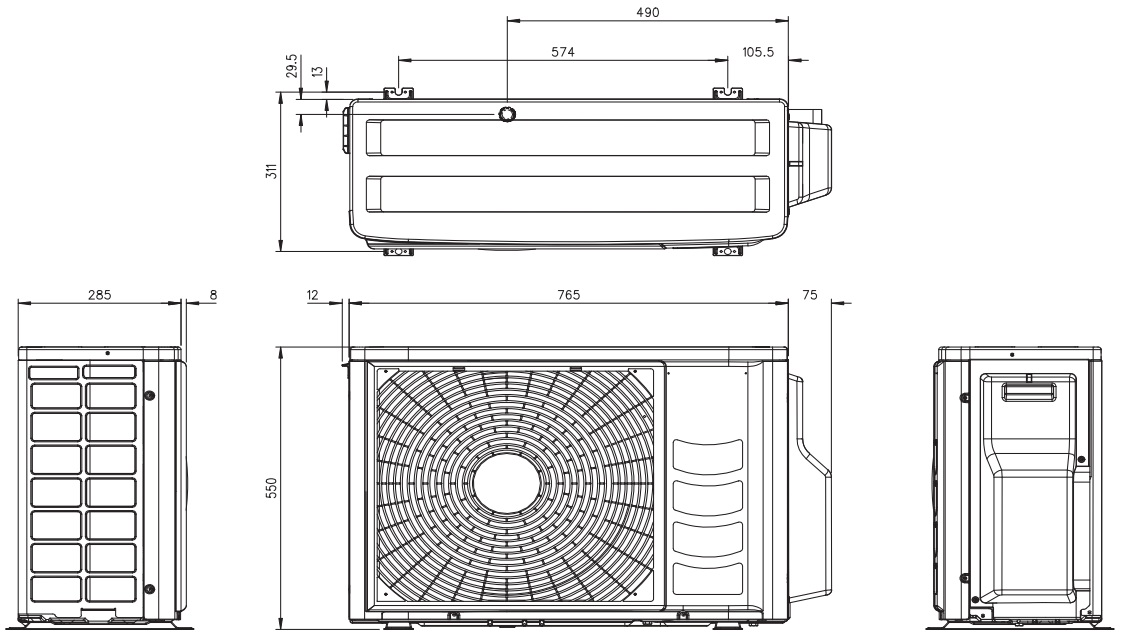
Heating Mode

Combination of indoor unit *	Each capacity (kW)				Total capacity (kW)		Total input (W)		COP	Total current (A)	
	A room	B room	C room	D room	Rated	Max	Rated	Max	Rated	Rated	Max
25	3.00	---	---	---	3.00	4.00	1030	1370	2.91	4.70	6.10
35	3.80	---	---	---	3.80	4.50	1420	1610	2.68	6.50	7.10
50	---	---	5.60	---	5.60	5.70	1840	2260	3.04	8.40	9.90
25 + 25	3.60	3.60	---	---	7.20	7.50	2240	2560	3.21	9.90	11.20
25 + 35	3.08	4.32	---	---	7.40	7.90	2120	2580	3.49	9.40	11.30
25 + 50	2.80	---	5.60	---	8.40	8.60	2610	2700	3.22	11.60	11.80
35 + 35	4.22	4.22	---	---	8.44	8.60	2920	3000	2.89	12.80	13.20
35 + 50	3.46	---	4.94	---	8.40	8.60	2600	2650	3.23	11.50	11.60
50 + 50	---	4.22	4.22	---	8.44	8.60	2340	2680	3.61	10.40	11.80
25 + 25 + 25	2.73	2.73	2.73	---	8.19	8.40	2700	2750	3.03	11.80	12.10
25 + 25 + 35	2.41	2.41	3.38	---	8.20	8.40	2550	2720	3.22	11.20	11.90
25 + 25 + 50	2.05	2.05	4.10	---	8.20	8.60	2250	2660	3.64	9.90	11.60
25 + 35 + 35	2.16	3.02	3.02	---	8.20	8.40	2330	2680	3.52	10.30	11.70
25 + 35 + 50	1.86	2.61	3.73	---	8.20	8.60	2130	2500	3.85	9.40	10.90
35 + 35 + 35	2.73	2.73	2.73	---	8.19	8.40	2300	2700	3.56	10.20	11.80
25 + 25 + 25 + 25	2.05	2.05	2.05	2.05	8.20	8.60	2200	2400	3.73	9.70	10.50
25 + 25 + 25 + 35	1.91	1.91	1.91	2.67	8.40	9.00	2054	2550	4.09	9.10	11.20

** Applicable for indoor size 15 using Ø9.52mm and Ø12.70mm gas pipe*
Note : It is not recommended to connect the multi-split outdoor to single indoor only.

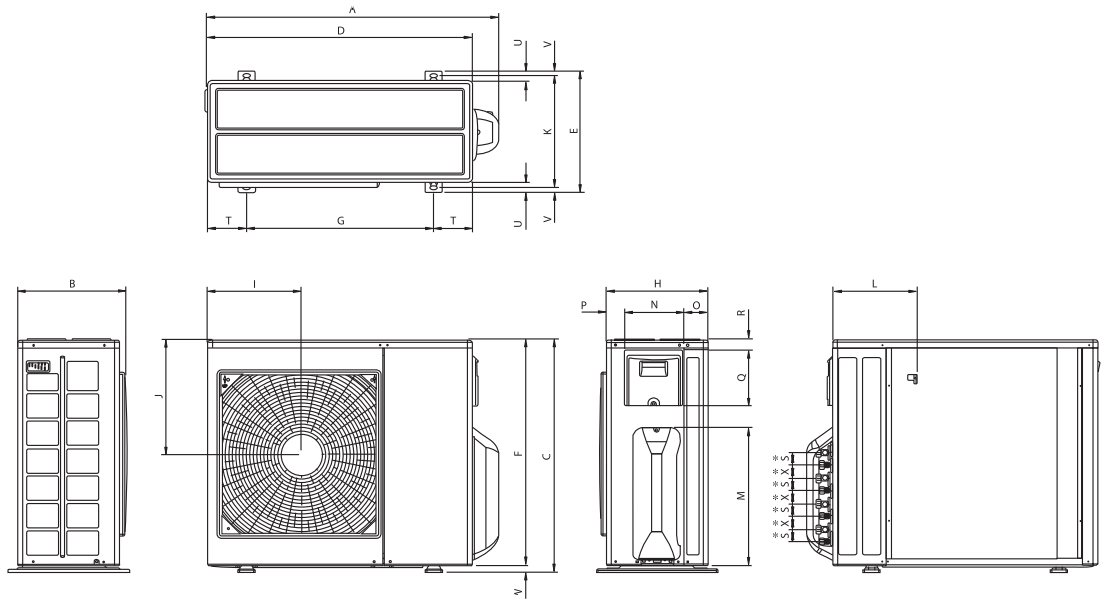
Outline & Dimension

Outdoor Unit
Model: 2MX45BGXV1



Note: Dimension in mm

Outdoor Unit
Model: 2MX50BGXV1 / 3MX60BGXV1 / 4MX80BGXV1

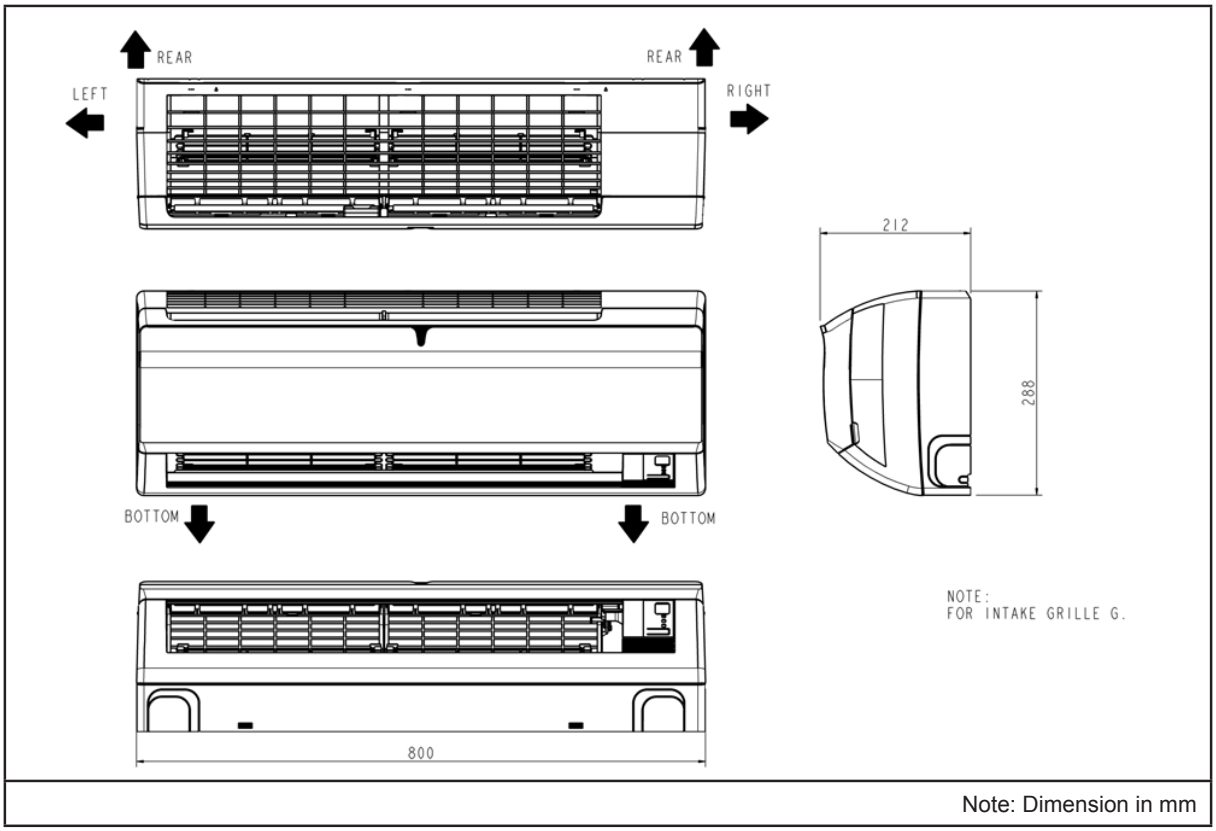


Dimension / Model	A	B	C	D	E	F	G	H	I	J	K	L
2MX50/3MX60/4MX80BGXV1	940	348	753	855	392	733	603	328	303	370	362	271

Dimension / Model	M	N	O	P	Q	R	S	T	U	V	W	X
2MX50/3MX60/4MX80BGXV1	448	190	80	58	180	32	39	126	32	15	23	44

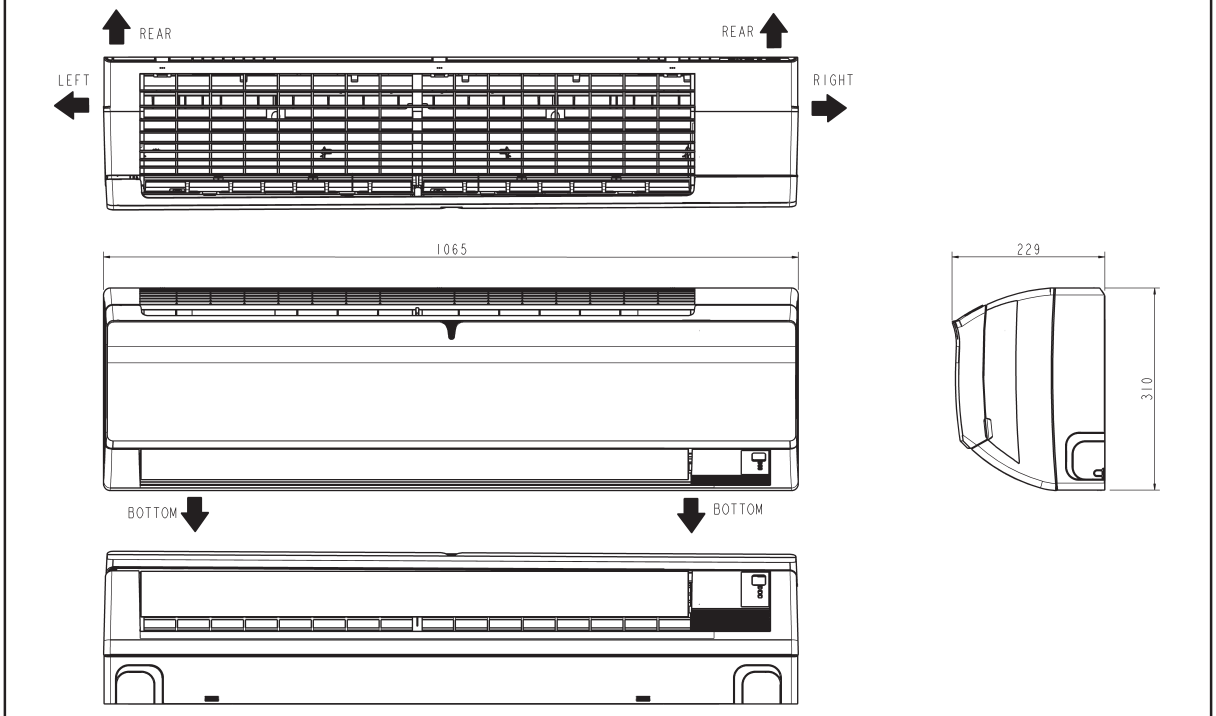
Note: Dimension in mm

Indoor Unit
Model: FTXN25/35MV1



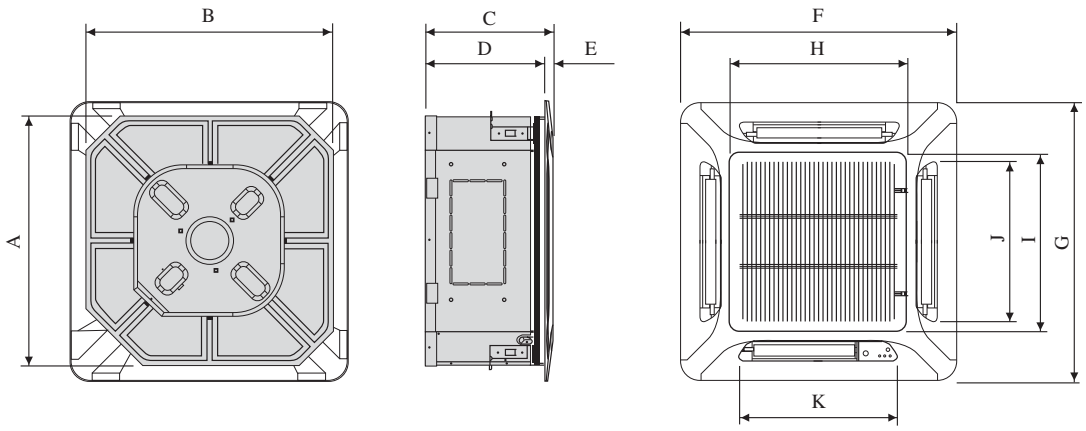
Note: Dimension in mm

Indoor Unit
Model: FTXN50MV1



Note: Dimension in mm

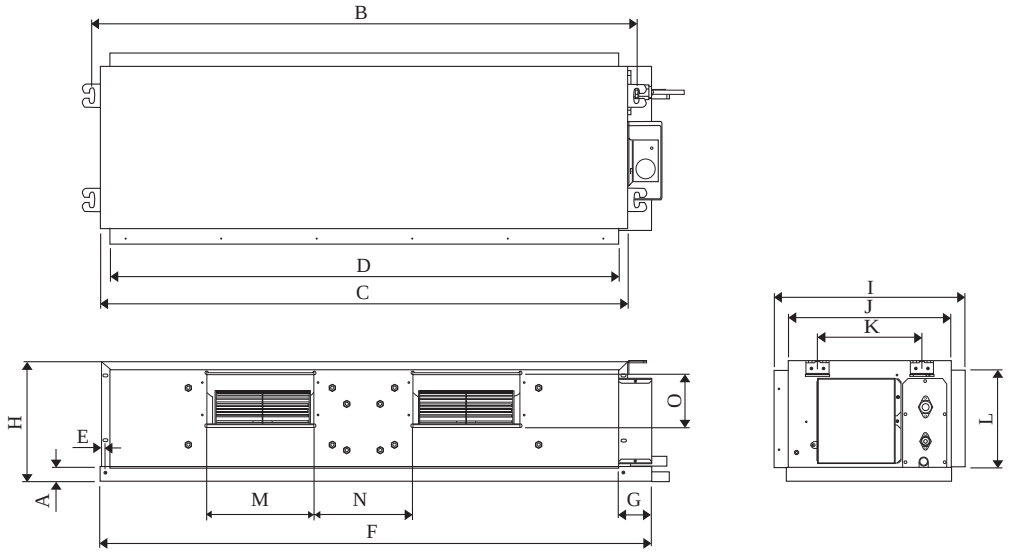
Indoor Unit
Model: FFQ25/35/50CXV1



Dimension / Model	A	B	C	D	E	F	G	H	I	J	K
FFQ25/35/50CXV1	570	570	295	275	20	640	640	408	408	364	364

Note: Dimension in mm

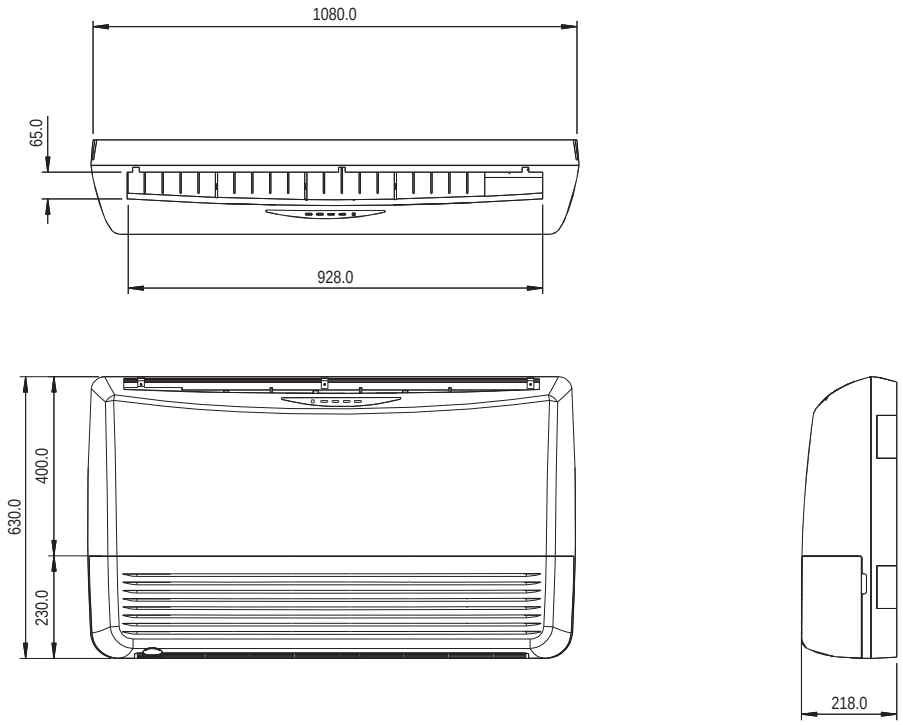
Indoor Unit
Model: FDMQ25C2XV1 / FDMQ35/50CXV1



Dimension / Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
FDMQ25C2XV1/ FDMQ35CXV1	31	881	842	802	10	905	72	261	411	351	225	211	232	213	114
FDMQ50CXV1	31	1041	1002	962	10	1065	72	261	411	351	225	211	232	213	114

Note: Dimension in mm

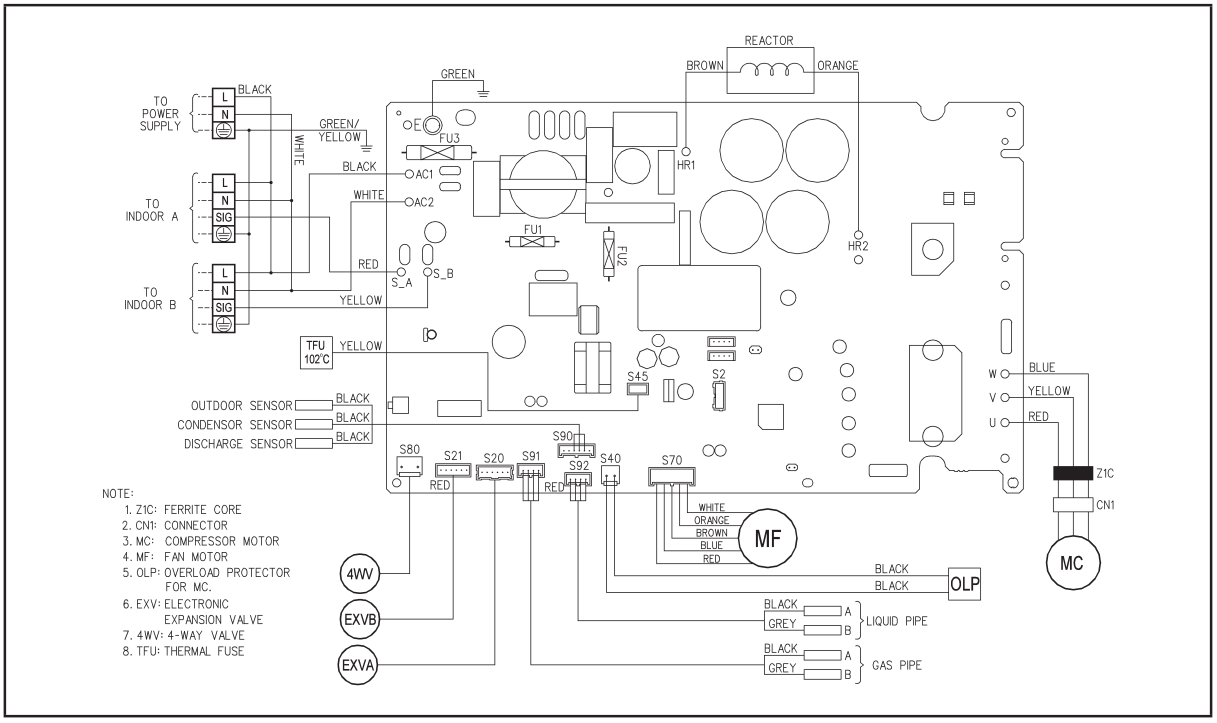
Indoor Unit
Model: FLQ35/50



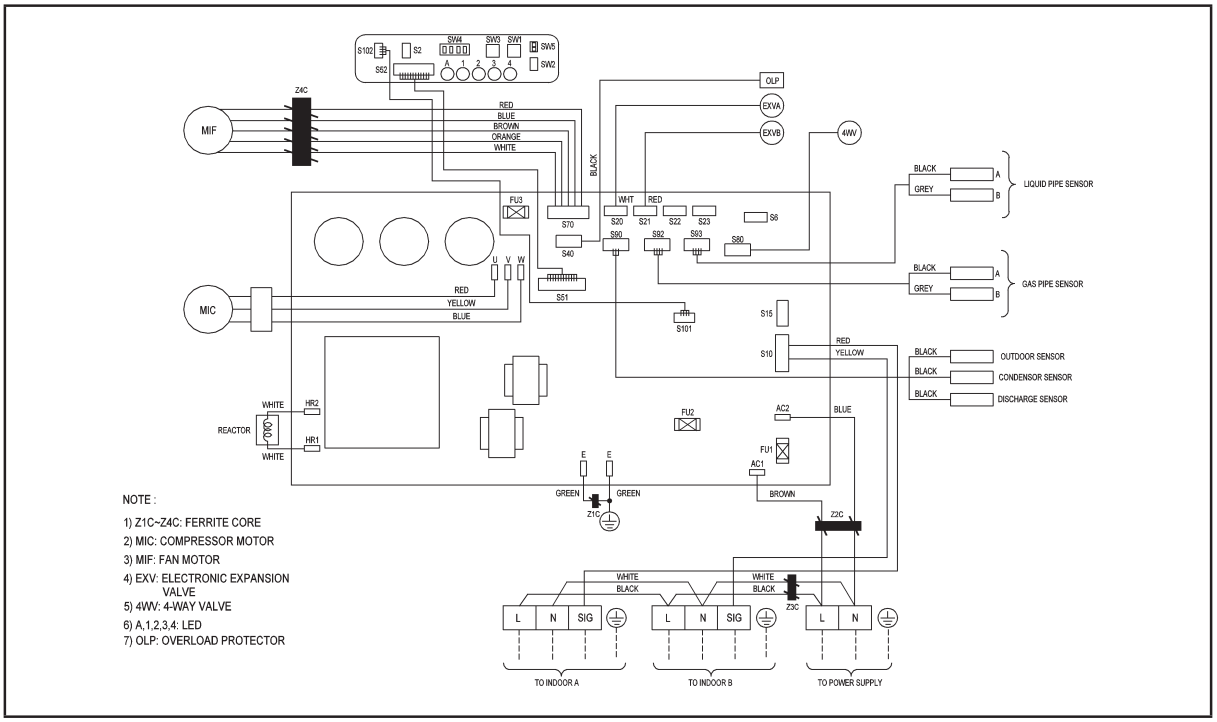
Note: Dimension in mm

Wiring Diagram

Outdoor Unit
Model: 2MX45BGXV1

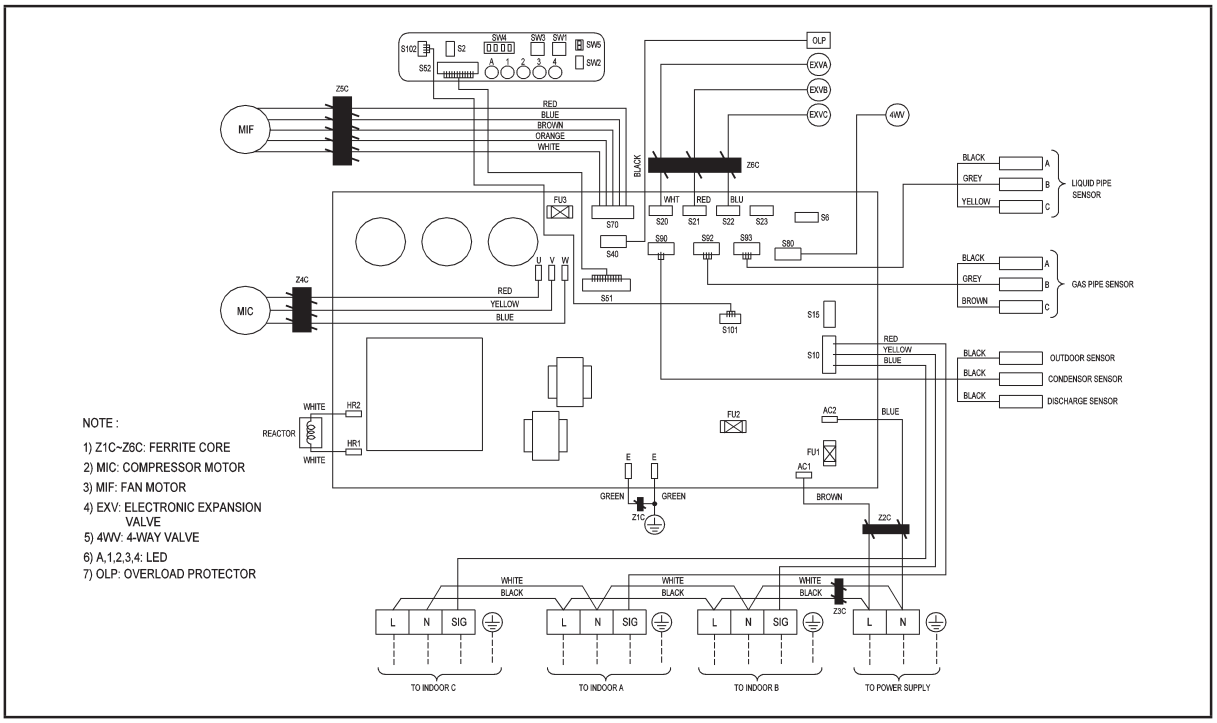


Outdoor Unit
Model: 2MX50BGXV1

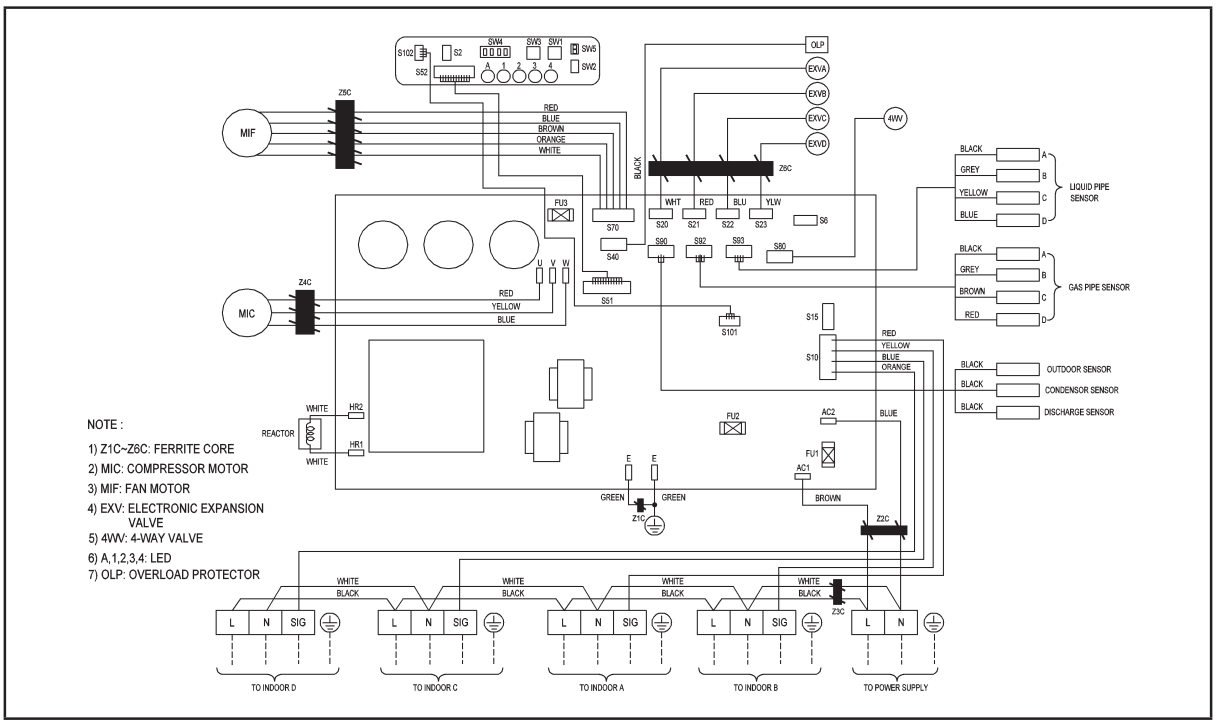


LED A	Service monitor LED (green)	SW3	Wiring error check switch
LED1 - LED4	Service monitor LED (red)	SW4	Priority room setting switch
SW1	Forced operation ON/OFF switch	SW5	Night quiet mode setting switch

Outdoor Unit
Model: 3MX60BGXV1

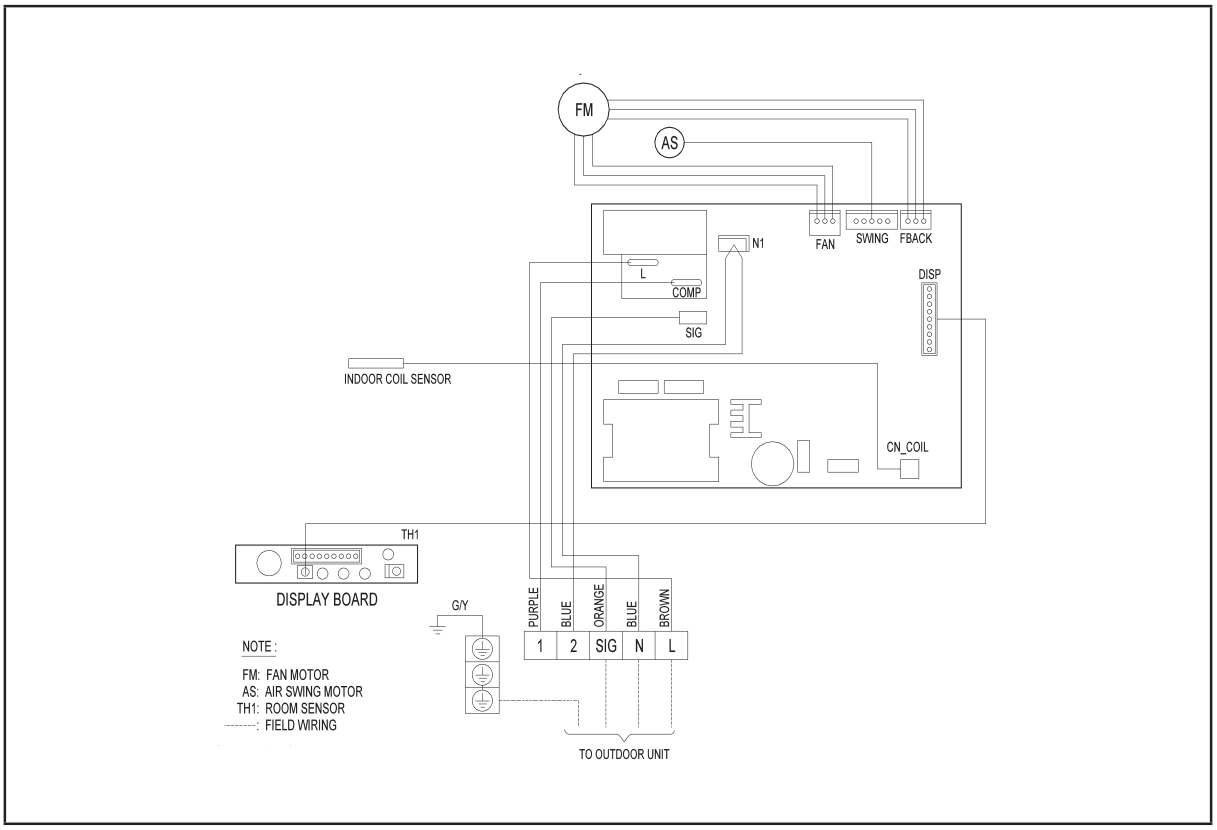


Outdoor Unit
Model: 4MX80BGXV1

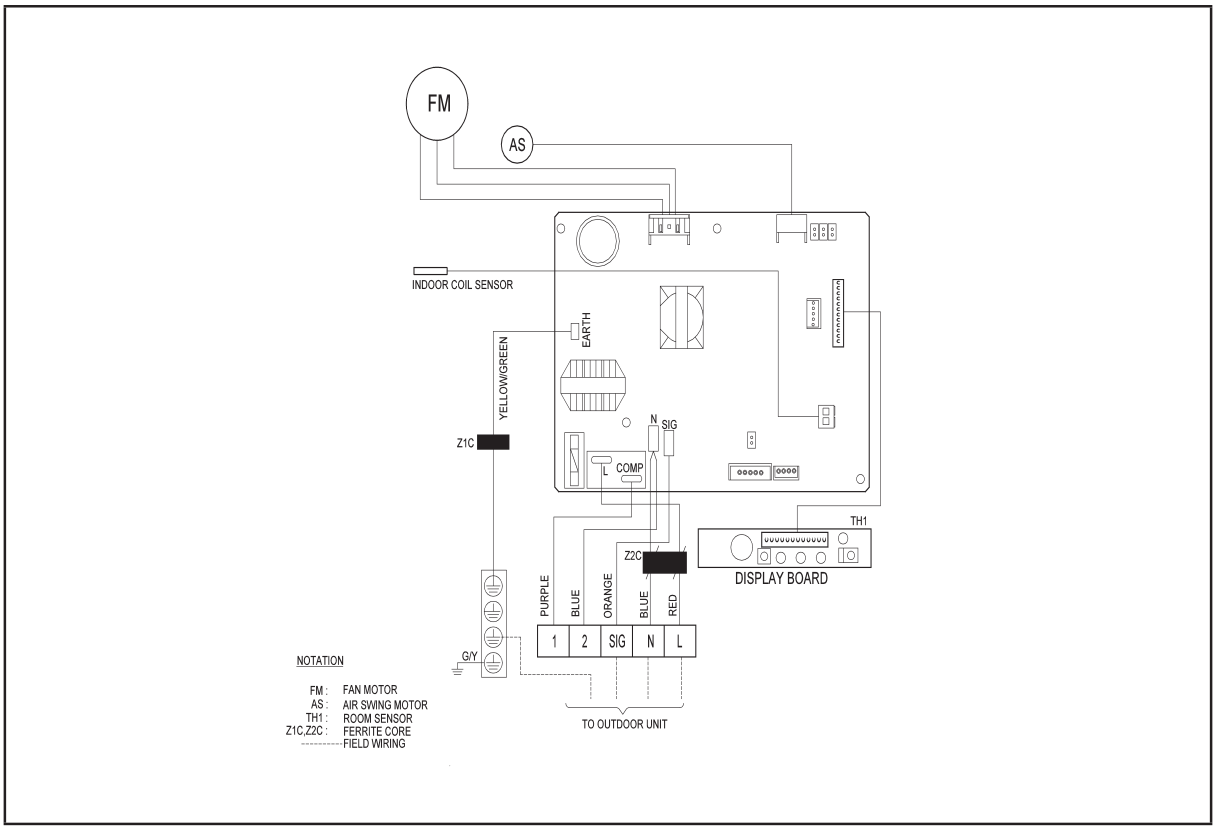


LED A	Service monitor LED (green)	SW3	Wiring error check switch
LED1 - LED4	Service monitor LED (red)	SW4	Priority room setting switch
SW1	Forced operation ON/OFF switch	SW5	Night quiet mode setting switch

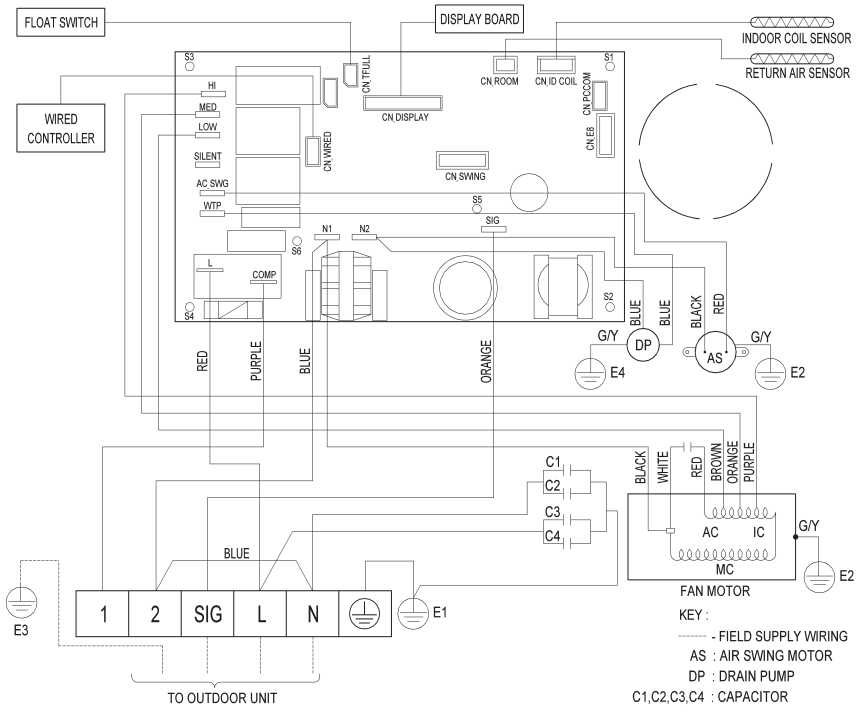
Indoor Unit
Model: FTXN25/35MV1



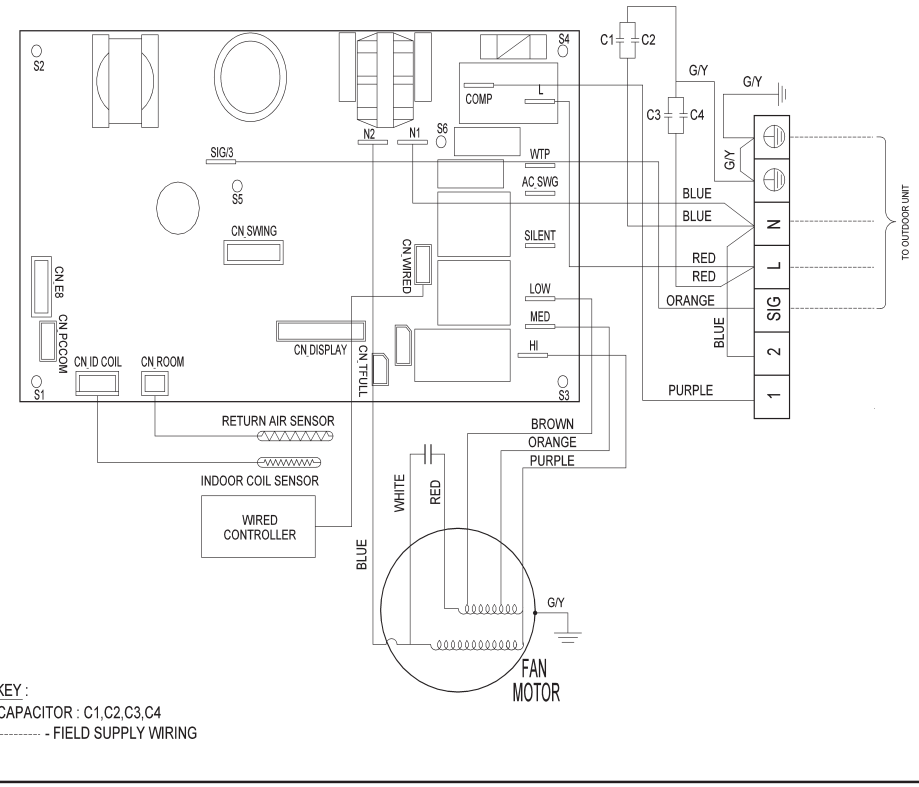
Indoor Unit
Model: FTXN50MV1



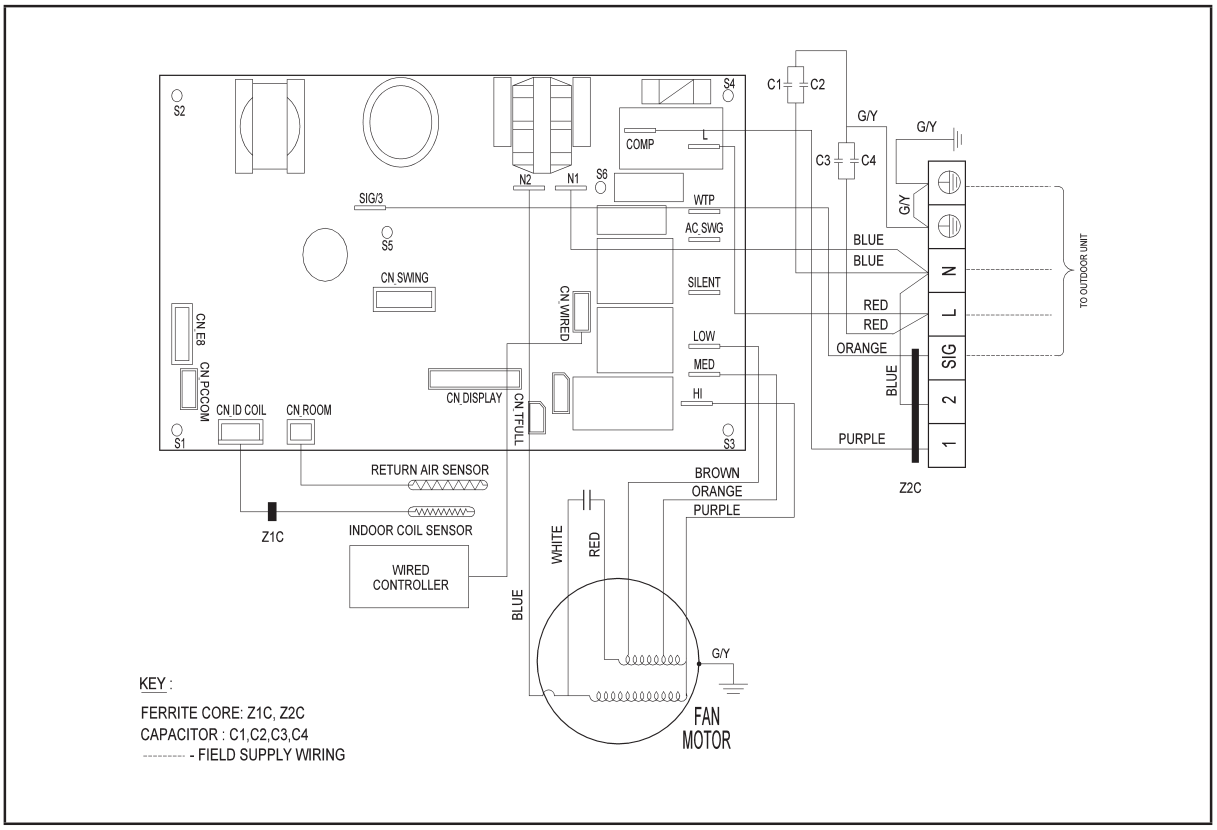
Indoor Unit
Model: FFQ25/35/50CXV1



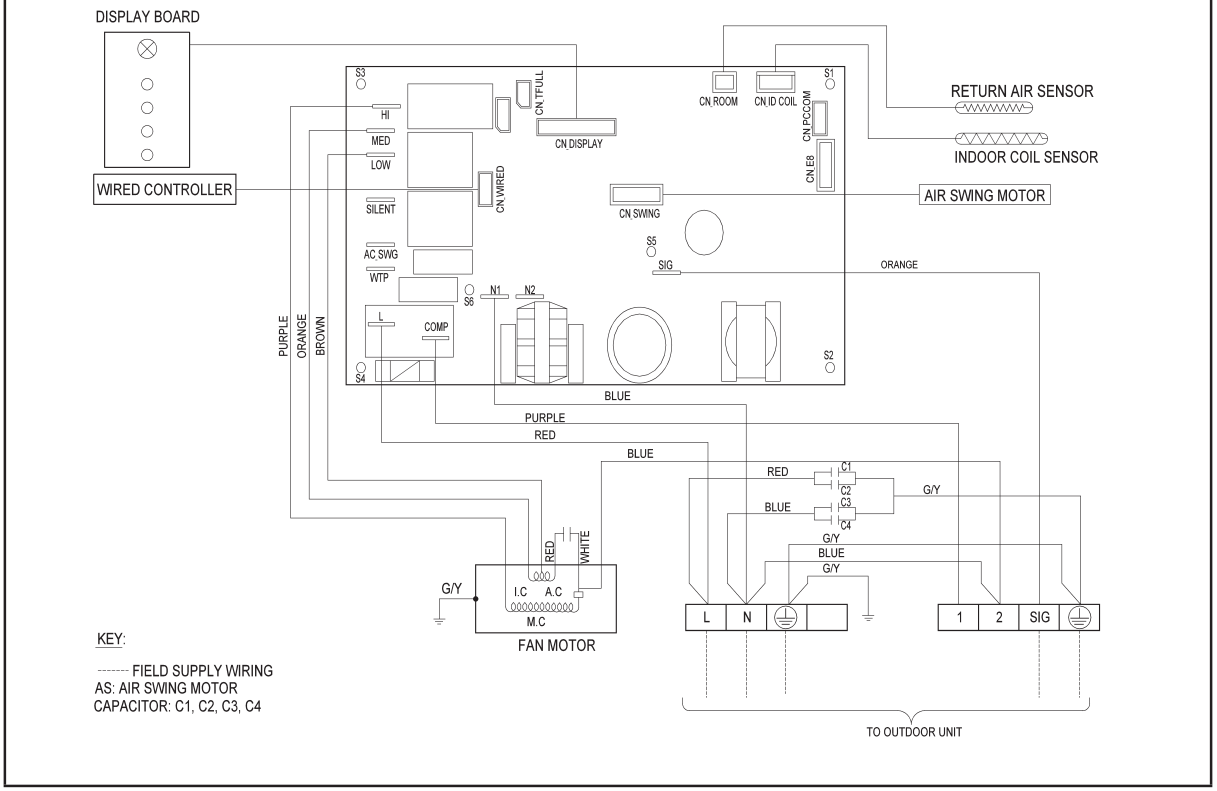
Indoor Unit
Model: FDMQ25/35C2XV1



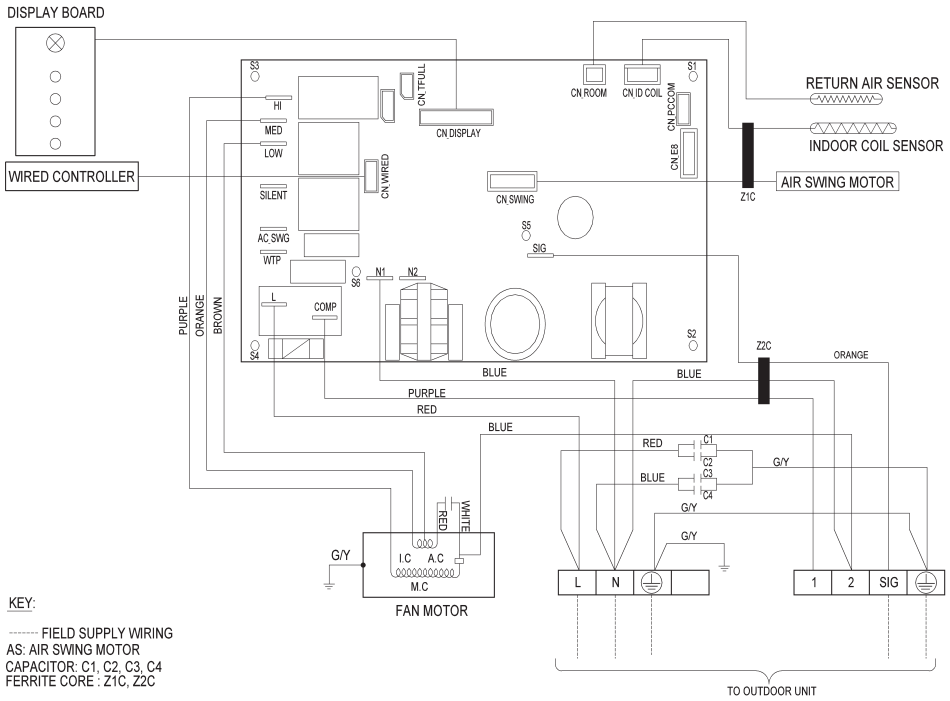
Indoor Unit
Model: FDMQ50CXV1



Indoor Unit
Model: FLQ35EXV1



Indoor Unit
Model: FLQ50EXV1



Service & Maintenance

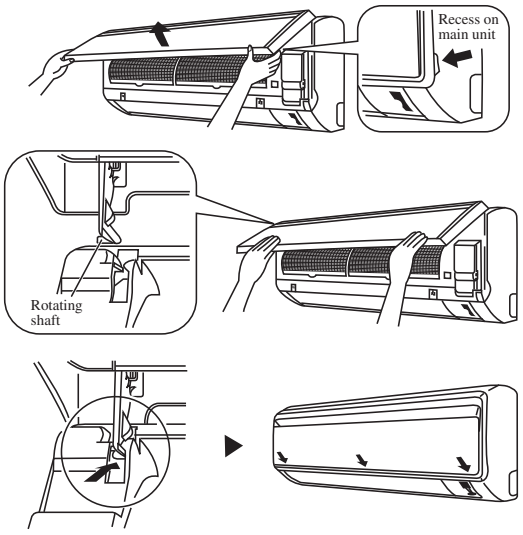
⚠ Warning

- Disconnect from main supply before servicing the air conditioner.
- The unit is designed to give long life operation with minimum maintenance required. However, it should be regularly checked and the following items should be given due attention.

Components	Maintenance Procedures	Period
Air Filter (Indoor Unit)	1. Remove any dust adhering to the filter by using a vacuum cleaner or wash in lukewarm water (below 40°C) with a neutral cleaning detergent. 2. Rinse the filter well and dry before placing it back onto the unit. 3. Note: Never use gasoline, volatile substances or chemicals to clean the filter.	At least once every 2 weeks. More frequently if necessary.
Indoor Unit	1. Clean any dirt or dust on the grille or panel by wiping it with a soft cloth soaked in lukewarm water (below 40°C) and a neutral detergent solution. 2. Note: Never use gasoline, volatile substances or chemicals to clean the indoor unit.	At least once every 2 weeks. More frequently if necessary.
Condense Drain Pan & Pipe	1. Check the cleanliness and clean it if necessary. 2. Check the condensate water flow.	Every 3 months.
Indoor Fan	Check if there is any abnormal noise.	If necessary.
Indoor / Outdoor Coil	1. Check and remove the dirt between the fins. 2. Check and remove any obstacles which hinder air flow through the indoor or outdoor. 3. Note: Avoid direct contact of any coil treatment material on the plastic part. This may cause plastic part to deform as a result of chemical reaction.	Every month.
Power Supply	1. Check the running current and voltage for indoor and outdoor unit. 2. Check the electrical wiring and tighten the wire onto the terminal block if necessary.	Every 2 months. Every year.
Compressor	No maintenance needed if refrigerant circuit remains sealed. However, check for refrigerant leak at joint and fitting.	Every 6 months.

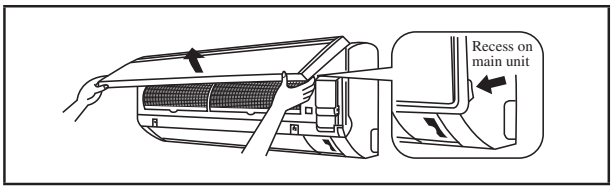
Indoor Models

1. Open the front panel
   - Hold the panel at the recesses on the main unit (2 recesses on right and left sides) and lift it until it stops.
2. Remove the front panel
   - While lifting the front panel further, slide it to the right and pull it to the front side. The left rotating shaft is detached. Slide the right rotating shaft to the left and pull it to the front side to remove it.
3. Attach the front panel
   - Align the right and left rotating shafts of the front panel with the grooves and push them all the way in.
   - Gently close the front panel. (Push both ends and the center on the front panel.)

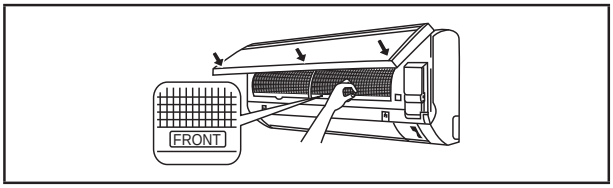


Air Filter

1. Open the front panel.
   - Hold the panel at the recesses on the main unit (2 recesses on right and left sides) and lift it until it stops.



2. Pull out the air filters.
   - Push a little upwards the tab at the center of each air filter, then pull it down.
3. Clean or replace each filter.
   - When shaking off remaining water, do not wring the filter.
4. Set the air filter and close the front panel.
   - Insert claws of the filters into slots of the front panel. Close the front panel slowly and push the panel at the 3 points. (1 on each side and 1 in the middle.)
   - The air filter have a symmetrical form in the horizontal direction.



⚠ Caution

- Don't touch the metal parts of the indoor unit. It may cause an injury.
- When removing or attaching the front panel, use a robust and stable stool and watch your steps carefully.
- When removing or attaching the front panel, support the panel securely with hand to prevent from it falling.
- For cleansing, do no use hot water above 40°C, benzene, gasoline, thinner, nor other volatile oils, polishing compound, scrubbing brushes, nor other hand stuff.
- After cleaning, make sure that the front panel is securely fixed.

Pre Start Up Maintenance

(After Extended Shutdown)

p Inspect thoroughly and clean indoor and outdoor units.
p Clean or replace air filters.
p Clean condensates drain line.
p Clean clogged indoor and outdoor coils.
p Check fan imbalance before operation.
p Tighten all wiring connections and panels.
p Check for refrigerant leakage.

Outdoor Models

The design of the MX-B outdoor series allows servicing to be carried out easily. The removal of the top, front and side panels makes almost every part accessible.
Under normal circumstances, these outdoor units only require a check and cleaning of air intake coil surface once every 3 months. However, if a unit is installed in areas subjected to much oil mist and dust, the coils must be regularly cleaned by qualified Air Conditioner Service Technicians to ensure sufficient heat exchange and proper operation. Otherwise, the systems life span may be shortened.

⚠ Caution

- Do not charge **OXYGEN, ACETYLENE OR OTHER FLAMMABLE** and poisonous gases into the unit when performing a leakage test or an airtight test. These gases could cause severe explosion and damage if exposed to high temperature and pressure.
- It is recommended that only nitrogen or refrigerant be charged when performing the leakage or airtight test.

Troubleshooting

Fault Condition

When a malfunction of the air conditioner unit is detected, immediately switch off the main power supply before proceeding with the following troubleshooting procedures.
The following are common fault conditions and simple troubleshooting tips. If any other fault conditions which are not listed occur, contact your nearest local dealer. DO NOT attempt to troubleshoot the unit by yourself.

No	Fault conditions	Possible causes / corrective actions
1	The air conditioner unit will not resume after power failure.	• The auto restart function is not functioning. Please turn on the unit with the wireless / wired controller.
2	The airflow is too slow or room cannot be cooled sufficiently.	• The air filter is dirty. • The doors and windows are opened. • The air suction and discharge of both indoor and outdoor units are clogged or blocked. • The regulated temperature or temperature setting is not low enough.
3	Discharge airflow has bad odor.	• Cigarettes, smoke particles, perfume and others, which might have adhered onto the coil, may cause odor. • Contact your nearest dealer.
4	Condensation on the front air grille of the indoor unit.	• This is caused by air humidity after an extended 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.	• Switch off the unit and contact your nearest dealer. This might be due to tilted installation.
6	Hissing airflow sound from the air conditioner unit during operation.	• Liquid refrigerant flowing into the evaporator coil.
7	The wireless controller display is dim.	• The batteries are discharged. • The batteries are not correctly inserted. • The assembly is not good.
8	Compressor operates continuously.	• Dirty air filter. Clean the air filter. • Temperature setting too low (cooling). Use higher temperature setting. • Temperature setting too high (heating). Use lower temperature setting.
9	No cool air comes out during cooling cycle, or no hot air comes out during heating cycle.	• Temperature setting too high (cooling). Use lower temperature setting. • Temperature setting too low (heating). Use higher temperature setting.
10	On heating cycle, warm air does not come out.	• Unit is in defrost mode. Heating operation will resume after defrost cycle ends.

Indicator Lights

IR Signal Receiver

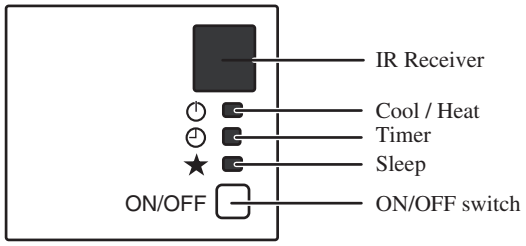
When an infrared remote control operating signal has been transmitted, the signal receiver on the indoor unit will respond as below to confirm acceptance of the signal transmission.

ON to OFF	1 Long Beep
OFF to ON Pump down/Cool force on	2 Short Beep
Others	1 Short Beep

Heatpump Unit

The table shows the LED indicator lights for the air conditioner unit under normal operation and fault conditions. The LED indicator lights are located at the side of the air conditioner unit. The heatpump units are equipped with an “auto” mode sensor whereby it will provide reasonable room temperature by switching automatically to either “cool” or “heat” mode according to the temperature set by the user.

Model
FTXN25/35/50V1
FFQ25/35/50CXV1
FLQ35/50EXV1
FDMQ25/35/50CXV1

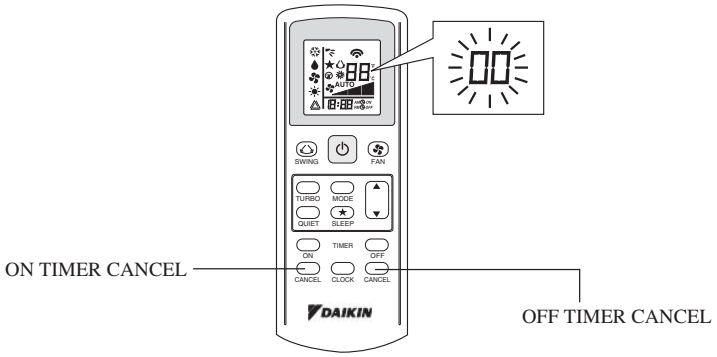


LED Indicator Lights: Normal Operation and Fault Conditions for Heatpump Unit

★ (RED)	⏻ COOL/HEAT (GREEN/RED)	🕒 (ORANGE)	Normal Operation / Fault Indication
	○ Green		Cool mode
	○ Red		Heat mode
	○ Red		Auto mode in Heating operation
	○ Green		Auto mode in Cooling operation
	○	○	Time off (when unit is on)
		○	Time on (when unit is off)
○	○		Sleep mode on
	○ Green		Fan mode on
	○ Green		Dry mode on
	◑ Red		Defrost operation
	◑ Green		Error indication

○ ON ◑ Blinking

Error Code Diagnosis by Wireless Handset BRC51A61



Diagnosis Step

1. Hold down ON TIMER CANCEL button or OFF TIMER CANCEL button for 5 seconds, a "00" indication flashes on the temperature display section.
2. Press ON TIMER CANCEL or OFF TIMER CANCEL repeatedly until indoor buzzer produces a long beep. This indicates the error code, refers to Error Codes table and is displayed on the temperature display section.
3. A short beep or two consecutive beeps indicate non-corresponding error codes.
4. To cancel the error code display, hold down ON TIMER CANCEL or OFF TIMER CANCEL button for 5 seconds. Alternatively, the code display will cancel itself if the button is not pressed for 1 minute.

Error Code Diagnosis by Unit Last State Memory Using Wireless Handset

1. Remove battery from wireless handset.
2. Wait for the display to finally go off (as this handset uses very small amount of power, hence it takes longer for the memory to reset).
3. Replace battery again and immediately (before display comes back on the LCD screen), press on Mode and ON/OFF buttons together until you see "00" is being displayed.
4. Press Mode button to 5:00.
5. Press ON/OFF button once.
6. After that, remove battery from wireless handset and wait until the display has gone off. Then, replace battery again into the handset.
7. Finally, repeat the fault diagnosis steps by wireless handset BRC51A61 above.

Error Codes

Error Codes	Error Description	Action
0	Normal	No action.
U0	Insufficient gas	1. Check sensor connection.
		2. Check stop valve.
		3. Check for gas leak.
		4. Check the EXV.
		5. Check H8.
U2	DC voltage out of range	1. Check the supply voltage.
		2. Check the outdoor fan by rotating with hand.
		3. Restart the system.
		4. Check power supply waveform.
U4	Communication error	1. Check the indoor unit - outdoor unit connection wires.
		2. Check the voltage of the signal terminal.
		3. Check the indoor fan by rotating with hand.
		4. Check the power supply waveform.
U7	Signal transmission error (on outdoor unit PCB)	1. Restart the system.
		2. Replace outdoor PCB.
		3. Long term monitor on external factor.
UA	Installation error	1. Check the indoor and outdoor unit model name.
		2. Check the part code on the indoor and outdoor PCB.
UF	Communication Error (indoor and outdoor) piping and wiring	1. Check the wiring and piping between indoor and outdoor units.
		2. Check refrigerant level.
		3. Check refrigerant line on blockage.
UH	Anti-freeze function in other room	1. Check which indoor having error A5.
		2. Check the supply voltage.
		3. Check the indoor and outdoor model name.
A1	Indoor PCB error	1. Check connector connection.
		2. Replace indoor PCB.
A3	Water pump error	1. Check for short circuit.
		2. Check connection on drain pump.
		3. Restart the system.
		4. Check the drain water level.
		5. Check float switch connection.
A5	Antifreeze	1. Check the air passage.
		2. Check the intake air filter.
		3. Check dust accumulation on indoor coil.
		4. Check wiring and piping.
		5. Check the EXV.
		6. Check indoor coil sensor resistance value.
		7. Check refrigerant level.
		8. Check room sensor resistance value.
A6	Indoor fan motor abnormal	1. Check the indoor fan by rotating with hand.
		2. Replace indoor fan motor if not rotating smoothly.
		3. Check fan motor voltage.
		4. Replace indoor PCB if not at the rated voltage.
		5. Check fan capacitor's conductivity (AC Motor).
		6. Replace fan capacitor if there's conductivity.
C4	Indoor heat exchanger thermistor short/ open	1. Check the connector connection. 2. Check the sensor resistance value.
C9	Indoor room thermistor short/open	

Error Codes	Error Description	Action
E1	Outdoor PCB error	1. Restart the system.
		2. Replace outdoor PCB.
		3. Check to see that the unit is grounded.
		4. Check power supply waveform.
E3	High pressure protection	1. Check installation conditions.
		2. Check stop valve.
		3. Check HPS connection.
		4. Check pressure level by pressure gauge.
		5. Wait for 10 minutes then restart the system.
		6. Check if H3 is displayed.
E4	Low pressure protection	1. Check stop valve.
		2. Check low pressure sensor connection.
		3. Check low side pressure and voltage.
		4. Check outdoor coil sensor connection.
		5. Check sensor resistance value.
		6. Check refrigerant level.
E5	Compressor motor lock/overload	1. Check connection on discharge pipe sensor.
		2. Check discharge pipe sensor resistance value.
		3. Check the EXV.
		4. Check the refrigerant line on blockage or shortage.
E6	Compressor lock/start-up error	1. Check with inverter checker.
		2. Check the EXV.
E7	Outdoor DC fan motor lock	1. Check the fan motor connection.
		2. Check if foreign matters exist around or in the fan.
E8	Ac input over current	1. Measure the input current.
		2. Check the main circuit electrolytic capacitor.
		3. Check with inverter checker.
		4. Check discharge pressure.
		5. Check the installation condition.
E9	EXV error	1. Restart the system.
		2. Check the EXV connection.
		3. Check EXV coil resistance.
		4. Check sensors resistance value.
EA	4-way valve error	1. Check 4WV coil connection.
		2. Check the continuity of the 4WV coil and harness.
		3. Check the 4WV switching output.
		4. Check sensor connection.
		5. Check sensor resistance value.
		6. Check the refrigerant line on blockage or shortage.
F3	Discharge pipe overheat	1. Check the discharge pipe sensor.
		2. Check the EXV.
		3. Check the refrigerant line on blockage or shortage.
F6	Heat exchanger overheat	1. Check the installation space.
		2. Check the outdoor fan.
		3. Check the EXV.
		4. Check the coil sensor.

Error Codes	Error Description	Action
H0	Compressor sensor system abnormality	1. Check the reactor connection.
		2. Check the compressor connection.
		3. Measure the resistance value between the reactor terminals.
		4. Measure the resistance value between the compressor terminals.
H3	High pressure switch error	1. Check pressure sensor connection.
		2. Check HPS continuity.
H6	Position sensor abnormality	1. Check for short circuit.
		2. Check the electrolytic capacitor voltage.
		3. Check compressor harness wire.
		4. Check with inverter checker.
H8	AC current sensor error	1. Restart the system.
		2. Check capacitor voltage.
		3. Measure the rectifier input voltage.
		4. Check compressor harness wire.
		5. Check with inverter checker.
H9	Outdoor air thermistor short / open	1. Check the sensor connection.
		2. Check the sensor resistance value.
J1	Pressure sensor error	1. Check pressure sensor connection.
		2. Check pressure and voltage level.
J3	Compressor discharge pipe thermistor short / open / misplaced	1. Check the sensor connection.
		2. Check the sensor resistance value.
		3. Check indoor coil sensor resistance value.
J5	Suction pipe thermistor short / open	Same as H9.
J6	Outdoor heat exchanger	Same as H9.
J7	Subcooling heat exchanger thermistor short / open	Same as H9.
J8	Liquid pipe thermistor short / open	Same as H9.
J9	Gas pipe thermistor abnormality	Same as H9.
LC	Communication Error (control PCB and inverter PCB)	1. Check fan motor connection.
		2. Check if LED blinking normally at outdoor PCB.
L1	Outdoor PCB error	1. Check the range of power supply.
		2. Check connection between compressor and PCB.
		3. Check fan motor resistance.
		4. Check the power supply waveform.
L3	Electrical box temperature rise	1. Restart the system.
		2. Check sensor resistance value.
		3. Check heat sink temperature and conditions.
		4. Check outdoor fan.
		5. Check the installation condition.
L4	Heat sink overheat	1. Restart the system.
		2. Check the silicon grease condition on heat sink.
		3. Check sensor resistance value.
		4. Check heat sink temperature and conditions.
		5. Check outdoor fan.
		6. Check the installation condition.

Error Codes	Error Description	Action
L5	IPM error / IGBT error	1. Check stop valve.
		2. Check with inverter checker.
		3. Check the power transistor.
		4. Check the supply voltage.
		5. Check the compressor phase.
		6. Check the discharge pressure.
		7. Check the installation condition.
L8	Electrical thermal switch	Contact dealers for assistance.
L9	Stall prevention	1. Check installation conditions.
		2. Check stop valve.
		3. Check difference between high and low pressure side.
		4. Check continuity on the power transistor.
		5. Check the output voltage.
P1	Open phase or voltage unbalance	1. Check LED on outdoor PCB.
		2. Check open phase of power supply voltage.
		3. Check voltage balance between phases.
P4	Heat sink thermistor short / open	Same as H9.
PJ	Capacity setting error	1. Check the connection between capacitor and Outdoor PCB.

Outdoor LED error indication

The outdoor unit LED indicates the running condition of the system:

LED INDICATION					Description
Green	Red				
A	1	2	3	4	
◑	●	●	●	●	NORMAL
					INSTALLATION ERROR
					ANTIFREEZE (OTHER ROOMS)
◑	●	●	●	○	HEAT SINK OVERHEAT
◑	●	●	○	●	IPM ERROR/IGBT ERROR
◑	●	●	○	○	INSUFFICIENT GAS
◑	●	○	●	○	AC INPUT OVER CURRENT
◑	●	○	○	●	COMPRESSOR START-UP ERROR
◑	●	○	○	○	COMMUNICATION ERROR (OUTDOOR CONTROL PCB AND IPM PCB)
◑	○	●	●	●	4 WAY VALVE ERROR
◑	○	●	●	○	DC VOLTAGE OUT OF RANGE
◑	○	●	○	●	COMPRESSOR MOTOR LOCK/COMPRESSOR OVERLOADED
◑	○	●	○	●	DISCHARGE PIPE OVERHEAT
◑	○	●	○	○	ANTIFREEZE (COOLING)/HEAT EXCHANGER OVERHEAT (HEATING)
					HEAT EXCHANGER OVERHEAT
◑	○	○	●	●	COMPRESSOR SENSOR SYSTEM ERROR
					COMPRESSOR FEEDBACK DETECTION ERROR
					AC CURRENT SENSOR ERROR
					OUTDOOR AIR THERMISTOR SHORT/OPEN
					COMPRESSOR DISCHARGE PIPE THERMISTOR SHORT/OPEN/ MISPLACED
					COMPRESSOR DISCHARGE PIPE THERMISTOR SHORT/OPEN/ MISPLACED
					LIQUID PIPE THERMISTOR SHORT/OPEN
					GAS PIPE THERMISTOR SHORT/OPEN
					HEAT SINK THERMISTOR SHORT/OPEN
◑	○	○	●	○	OUTDOOR CONTROL BOX OVERHEAT
◑	○	○	○	●	OUTDOOR PCB ERROR
◑	○	○	○	○	OUTDOOR DC FAN MOTOR LOCK

Legend
◑ Blinks
● Off
○ On

If faulty condition occurs, please contact the nearest local dealer or qualified service personnel. Do not attempt to troubleshoot the unit yourself. For any enquiries on spare parts please contact your authorized dealer.