



* Shows K2 type (Wall Mounted)

Operating Instructions VRF System Air Conditioner

Model No.

Indoor Unit		Nominal Capacity			
Type	Indoor Unit Type	7	9	12	18
K2	Wall Mounted	S-07MK2U6	S-09MK2U6	S-12MK2U6	
Y2	4-Way Cassette 60x60			S-12MY2U6	S-18MY2U6

● Connectable outdoor unit lineup

This booklet is the operating instructions for indoor unit. Regarding the outdoor unit, see the operating instructions supplied with the outdoor unit.

Outdoor Units		Nominal Capacity					
Type	Outdoor Unit Type	36	52	72	96	120	144
ME2	2WAY VRF System			U-72ME2U9	U-96ME2U9	U-120ME2U9	U-144ME2U9
MF1	3WAY VRF System			U-72MF1U9	U-96MF1U9		
LE1	Mini VRF System	U-36LE1U6	U-52LE1U6				
		U-36LE1U6E*	U-52LE1U6E*				

* Salt-Air Damage Resistant Specifications.

This air conditioner uses the refrigerant R410A.



Before operating the unit, read these operating instructions thoroughly and keep them for future reference.

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PRODUCT INFORMATION

If you have problems or questions concerning your Air Conditioner, you will need the following information. Model and serial numbers are on the nameplate.

Model No. _____ Serial No. _____

Date of purchase _____

Dealer's address _____

Phone number _____

ALERT SYMBOLS

The following symbols used in this manual, alert you to potentially dangerous conditions to users, service personnel or the appliance:



WARNING

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.



CAUTION

This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

INSTALLATION LOCATION

- We recommend that this air conditioner be installed properly by qualified installation technicians in accordance with the Installation Instructions provided with the unit.
- Before installation, check that the voltage of the electric supply in your home or office is the same as the voltage shown on the nameplate.



WARNING

- Do not install this air conditioner where there are fumes or flammable gases, or in an extremely humid space such as a greenhouse.
- Do not install the air conditioner where excessively high heat-generating objects are placed.

Avoid: To protect the air conditioner from heavy corrosion, avoid installing the outdoor unit where salty sea water can splash directly onto it or in sulphurous air near a spa.

ELECTRICAL REQUIREMENTS



WARNING

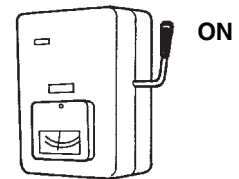
- All wiring must conform to the local electrical codes. Consult your dealer or a qualified electrician for details.
- It is strongly recommended to be installed with Earth Leakage Circuit Breaker (ELCB) or Residual Current Device (RCD) to prevent electric shock or fire.
- Each unit must be properly grounded with a ground (or earth) wire or through the supply wiring.
- Wiring must be done by a qualified electrician.



CAUTION

To warm up the system, the power mains must be turned on at least five (5) hours before operation. Leave the power mains ON unless you will not be using this appliance for an extended period.

Power mains



NOTE

Pull off the power plug from a receptacle, or switch off the breaker, or switch off the power disconnecting mean to isolate the air conditioner from the main power supply when not in use for a long time.

SAFETY INSTRUCTIONS

- Read these Operating Instructions carefully before using this air conditioner. If you still have any difficulties or problems, consult your dealer for help.
- This air conditioner is designed to give you comfortable room conditions. Use this only for its intended purpose as described in these Operating Instructions.



WARNING

- Confirm to authorized dealer or specialist on usage of specified refrigerant type. Using of refrigerant other than the specified type may cause product damage, burst and injury etc.
- Never touch the unit with wet hands.
- Never use or store gasoline or other flammable vapor or liquid near the air conditioner — it is very dangerous.
- Do not use this appliance in a potentially explosive atmosphere.
- This air conditioner has no ventilator for intaking fresh air from outdoors. You must open doors or windows frequently when you use gas or oil heating appliances in the same room, which consume a lot of oxygen from the air. Otherwise there is a risk of suffocation in an extreme case.
- To prevent possible hazards from insulation failure, the unit must be grounded.
- Do not clean inside the indoor and outdoor units by users. Engage authorized dealer or specialist for cleaning.
- In case of malfunction of this appliance, do not repair by yourself. Contact to the sales dealer or service dealer for a repair.
- Check for a leaking refrigerant! Refrigerant gas may produce a toxic gas if it comes in contact with fire.





WARNING

- For safety, be sure to turn the air conditioner off and also to disconnect the power before cleaning or servicing.
- Pull off the power plug from a receptacle, or switch off the breaker, or switch off the power disconnecting mean to isolate the air conditioner from the main power supply in case of emergency.



CAUTION

- Do not turn the air conditioner on and off from the power mains switch. Use the ON/OFF operation button.
- Do not stick anything into the air outlet of the outdoor unit. This is dangerous because the fan is rotating at high speed.
- Do not touch the air inlet or the sharp aluminum fins of the outdoor unit. You may get injured.
- Keep the fire alarm and the air outlet at least 5 feet (1.5 m) away from the unit.
- Do not let children play with the air conditioner.
- Do not cool or heat the room too much if babies or invalids are present.
- Do not sit or step on the unit. You may fall down accidentally.
- Do not stick any object into the FAN CASE. You may be injured and the unit may be damaged.



NOTICE

The compressor may occasionally stop during thunderstorms. This is not a mechanical failure. The unit automatically recovers after a few minutes.

OPERATION CONDITION

Use this air conditioner under the following temperature range.

3 way system

Temperature range (°F/°C)		Indoor		Outdoor	
		*DBT	*WBT	*DBT	*WBT
Heating & Cooling	Max.	86/30	-/-	86/30	75/24
	Min.	59/15	-/-	16/-8.8	14/-10
Cooling	Max.	90/32	77/25	115/46	-/-
	Min.	64/17.8	57/14	14/-10	-/-
Heating	Max.	86/30	-/-	75/24	64/17.8
	Min.	61/16	-/-	-4/-20	-4/-20

2 way system

Temperature range (°F/°C)		Indoor		Outdoor	
		*DBT	*WBT	*DBT	*WBT
Cooling	Max.	90/32	77/25	122/50	-/-
	Min.	64/17.8	57/14	14/-10	-/-
Heating	Max.	86/30	-/-	75/24	64/17.8
	Min.	61/16	-/-	-4/-20	-4/-20

Mini VRF system

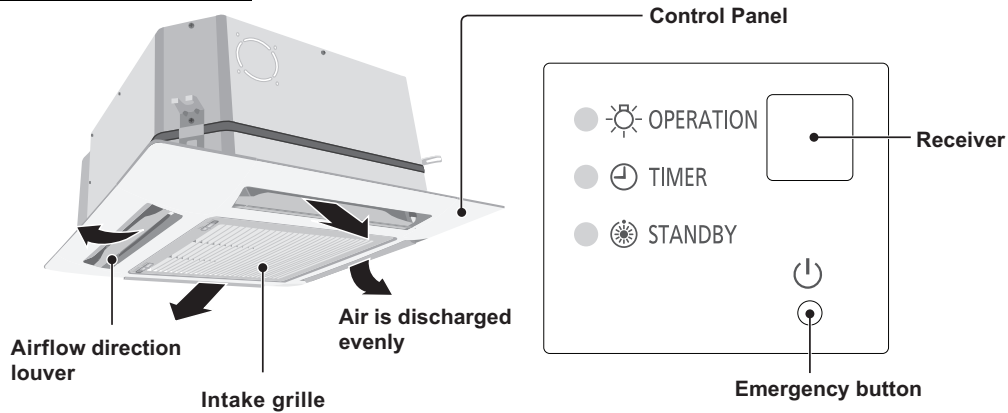
Temperature range (°F/°C)		Indoor		Outdoor	
		*DBT	*WBT	*DBT	*WBT
Cooling	Max.	90/32	77/25	115/46	-/-
	Min.	64/17.8	57/14	14/-10	-/-
Heating	Max.	86/30	-/-	75/24	64/17.8
	Min.	61/16	-/-	-4/-20	-4/-20

* DBT: Dry bulb temperature
* WBT: Wet bulb temperature

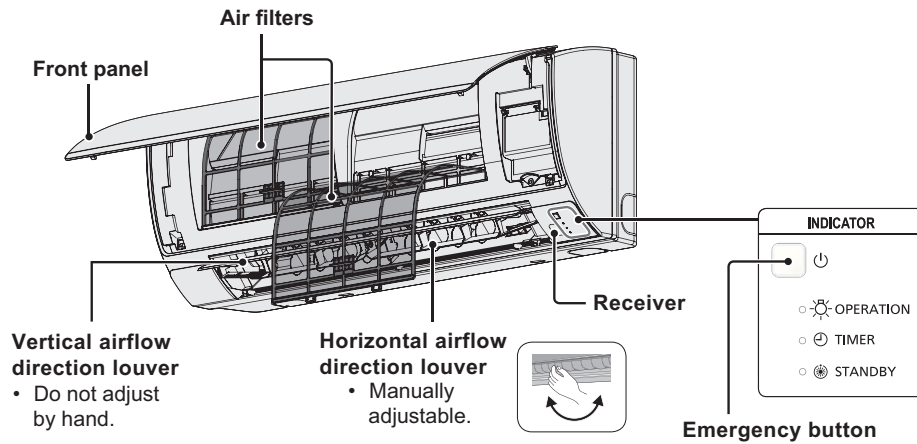
NAMES OF PARTS

INDOOR UNIT

Y2 type (4-WAY CASSETTE 60x60)



K2 type (WALL MOUNTED)



Timer Remote Controller (Optional parts)

NOTE Refer to the Operating Instructions attached to the optional Timer Remote Controller.



(CZ-RTC2)

High-spec Wired Remote Controller (Optional parts)

NOTE Refer to the Operating Instructions attached to the optional High-spec Wired Remote Controller.



(CZ-RTC3)

Wireless Remote Controller (Optional parts)

NOTE Refer to the Operating Instructions attached to the optional Wireless Remote Controller.



(Wireless type:
available for all
indoor units)

ADJUSTING AIRFLOW DIRECTION

The functions differ depending on the indoor unit used. The airflow direction cannot be set using the remote controller for any unit which is not listed below.


Y2 type, K2 type:



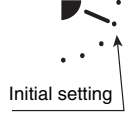

- Never use your hands to move the flap (vertical airflow flap) that is controlled using the remote controller.
- When the air conditioner is turned off, the flap automatically moves toward the direction of closing.
- The flap (vertical airflow flap) moves to the upward position when performing the standby operation for heating. The swing operation is made after the standby operation for heating is released, but swing is indicated on the remote controller even during the standby operation for heating.

Setting the airflow direction

The airflow direction changes each time the  FLAP button is pressed during operation.

To activate the swing operation



Press the FLAP button to set the flap (vertical airflow flap) to the downward position, and then press the FLAP button again. This displays , and the airflow automatically swings up and down.

Heating	Cooling and drying	Fan operation	All operations
<p>Set the flap (vertical airflow flap) to the downward position. If the flap is set to the upward position, the warm air may not reach the floor.</p> 	<p>The flap (vertical airflow flap) can be set to one of three positions.</p> 		

To stop the swing operation

Press the FLAP button again during the flap swing operation to stop the flap at the desired position. Then, the airflow can be set from the top position by pressing the FLAP button again.

Indicator when swing operation is stopped

Fan and heating	Cooling and drying
	

During cooling or drying operation, the flap will not stop at the downward position. Even if the flap is stopped at the downward position during the swing operation, it will not stop until it moves to the third position from the top.

ADJUSTING AIRFLOW DIRECTION (CONTINUED)

■ 4-way cassette (Y2)

Y2 type air conditioner is equipped with auto flaps.

You can set the airflow direction to a specific angle or to the sweep mode using the remote controller.



CAUTION

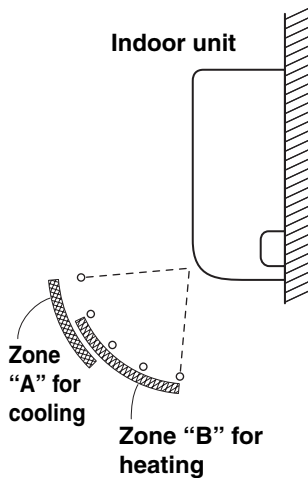
Do not move the flap with your hands.

■ Wall mounted type (K2)

Vertical directions (automatic)

Confirm that the remote controller has been turned on. Press the FLAP button to start the flap moving up and down. If you want to stop the flap movement and to direct the air in the desired direction, press the FLAP button again. In the cool mode, do not direct the flap down and move out of the cooling zone "A", otherwise, condensation may drip on to the floor. Zone "A" is the recommended flap position for cooling.

When operating continuously in the fixed airflow direction setting for about an hour, the airflow direction is automatically controlled and the flap position is changed. The airflow direction may be different from the display on the remote controller.



CAUTION

Do not move the flap with your hands.

Horizontal directions (manual)

The horizontal airflow direction can be adjusted manually by moving the vertical vanes to the left or right.

ADJUSTING AIRFLOW DIRECTION FOR MULTIPLE INDOOR UNITS USING SINGLE REMOTE CONTROLLER (WIRED)

- If multiple indoor units are connected to a remote controller, the airflow direction can be set for each indoor unit by selecting the indoor units (see the operation below).

Auto Flap () button

- To set the airflow for individual units, press the UNIT button. Display shows the indoor unit number under group control. Set the airflow direction for the indoor unit that is shown on the display.
- Each time UNIT is pressed, the indicator changes in the order shown below.
- When nothing is displayed, you can make the setting for all indoor units in one operation.
- The unit number is displayed as Outdoor Unit Number–Indoor Unit Number. It varies depending on the number of units under group control.

One outdoor unit and eight indoor units

→ No display → Unit No. → Unit No. → Unit No. Unit No.
 1-1 1-2 1-3 1-8

Two outdoor units and four indoor units

→ No display → Unit No. → Unit No. → Unit No. → Unit No. → Unit No. → Unit No.
 1-1 1-2 1-3 1-4 2-1 2-4

SPECIAL REMARKS

“DRY” Operation

How it works

- Once the room temperature reaches the level that was set, the unit repeats the cycle of turning on and off automatically.
- In order to prevent the humidity in the room from rising again, the indoor fan also turns off when the unit stops operating.
- The fan speed is set to “LO.” automatically, and cannot be adjusted.
- “DRY” operation is not possible if the outdoor temperature is 15 °C or less.

Heating Operation

Heating performance




- Because this appliance heats a room by utilizing the heat of the outside air (heat pump system), the heating efficiency will fall off when the outdoor temperature is very low. If sufficient heat cannot be obtained with this heat pump, use another heating appliance in conjunction with this unit.

Defrosting

- When the outdoor temperature is low, frost or ice may form on the outdoor heat exchanger coil, reducing the heating performance. When this happens, a microcomputer-controlled defrosting system operates. At the same time, the fan on the indoor unit stops (or runs at very low speed in some cases) and the “STANDBY” indicator appears on the display until defrosting is completed. Heating operation then restarts after several minutes. (This interval will vary slightly depending upon the outdoor temperature and the way in which frost forms.)



(standby) on the display

- For several minutes after the start of heating operation, the indoor fan will not start running (or it will run at very low speed in some cases) until the indoor heat exchanger coil has warmed up sufficiently. This is because a cold draft prevention system is operating. During this period, the “” (standby) indicator remains displayed.
- “” (standby) remains displayed during defrosting or when the compressor has been turned off (or when the unit is running at very low speed) by the thermostat when the system is in the heating mode.
- Upon completion of defrosting and when the compressor is turned on again, “” (standby) will turn off automatically as heating operation resumes.

NOTE

Should the power fail while the unit is running

If the power supply for this unit is temporarily cut off, the unit will automatically resume operation (once the power is restored) using the same settings before the power was cut off.

CARE AND CLEANING



WARNING

1. For safety, be sure to turn the air conditioner off and also to disconnect the power before cleaning.
2. Do not pour water on the indoor unit to clean it. This will damage the internal components and cause an electric shock hazard.



CAUTION

1. Never use solvents or harsh chemicals when cleaning the indoor unit. Do not wipe plastic parts using very hot water.
2. Some metal edges and the fins are sharp and may cause injury if handled improperly; be especially careful when you clean these parts.
3. The internal coil and other components of the outdoor unit must be cleaned periodically. Consult your dealer or service center.

Air intake and outlet side (Indoor unit)

Clean the air intake and outlet side of the indoor unit with a vacuum cleaner brush, or wipe them with a clean, soft cloth.

If these parts are stained, use a clean cloth moistened with water. When cleaning the air outlet side, be careful not to force the vanes out of place.



CAUTION

- Switch off the power supply before cleaning.
- Do not touch the aluminium fin, sharp parts may cause injury.

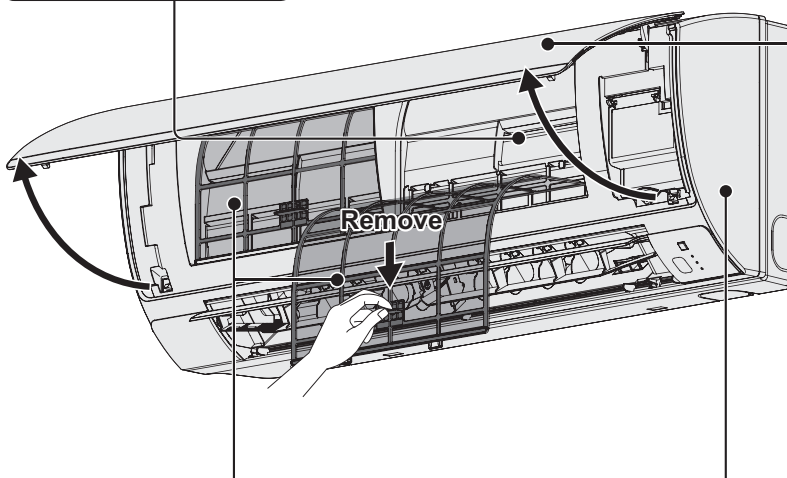
CLEANING INSTRUCTIONS

- Do not use benzene, thinner or scouring powder.
- Use only soap (≈pH7) or neutral household detergent.
- Do not use water hotter than 40°C.

HINTS

- Clean the filter regularly for best performance and to reduce power consumption.
- Please consult your nearest dealer for seasonal inspection.

ALUMINIUM FIN

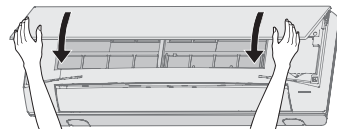


FRONT PANEL

Remove Front Panel

- Raise and pull to remove the front panel.
- Wash gently and dry.

Close Front Panel



- Press down both ends of the front panel to close it securely.

AIR FILTERS


- Air filters cleaning is needed every two weeks.
- Wash/rinse the filters gently with water to avoid damage to the filter surface.
- Dry the filters thoroughly under the shade, away from fire or direct sunlight.
- Replace any damage filter.

INDOOR UNIT


- Wipe the unit gently with a soft, dry cloth.

ex.) Timer Remote Controller

■ Air Filter Maintenance

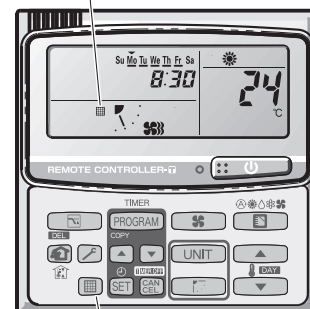
It is recommended that the air filter be cleaned when the  (Filter) appears on the display. Clean the filter frequently for best performance in the area of dusty or oil spots regardless of filter status.

■ After Cleaning

1. After the air filter is cleaned, reinstall it in its original position.
Be sure to reinstall in reverse order.
2. Press the Filter reset button.
The  (Filter) indicator on the display goes out.

If you wish to use a different (optional) remote controller, refer to the attached instruction manual.

Filter indicator



Filter reset button

TROUBLESHOOTING

If your air conditioner does not work properly, first check the following points before requesting service. If it still does not work properly, contact your dealer or a service center.

INDOOR UNIT


Symptom		Cause
Noise	Sound like streaming water during operation or after operation	<ul style="list-style-type: none"> • Sound of refrigerant liquid flowing inside unit • Sound of drainage water through drain pipe
	Cracking noise during operation or when operation stops.	Cracking sound due to temperature changes of parts
Odor	Discharged air is smelled during operation.	Indoor odor components, cigarette odor and cosmetic odor accumulated in the air conditioner and its air is discharged. Unit inside is dusty. Consult your dealer.
Dewdrop	Dewdrop gets accumulated near air discharge during operation	Indoor moisture is cooled by cool wind and accumulated by dewdrop.
Fog	Fog occurs during operation in cooling mode. (Places where large amounts of oil mist exist at restaurants.)	<ul style="list-style-type: none"> • Cleaning is necessary because unit inside (heat exchanger) is dirty. Consult your dealer as technical engineering is required. • During defrost operation
Fan is rotating for a while even though operation stops.		<ul style="list-style-type: none"> • Fan rotating makes operation smoothly. • Fan may sometimes rotates because of drying heat exchanger due to settings.
Wind-direction changes while operating. Wind-direction setting cannot be made. Wind-direction cannot be changed.		<ul style="list-style-type: none"> • When air discharge temperature is low or during defrost operation, horizontal wind flow is made automatically. • Flap position is occasionally set up individually.
When wind-direction is changed, flap operates several times and stops at designated position.		When wind-direction is changed, flap operates after searching for standard position.
Dust		Dust accumulation inside indoor unit is discharged.
At the initial high-speed operation, the fan may sometimes rotate faster (for 3 to 30 minutes) than the setting speed.		This is for operation check in order to confirm whether the fan motor rotation is within use range.

OUTDOOR UNIT

Symptom		Cause
No operation	When power is turned ON instantly.	Operation is not activated for the first approx. 3 minutes because compressor protection circuit is activated.
	When operation is stopped and resumed immediately.	
Noise	Noise often occurs in heating mode.	During defrost operation
Steam	Steam often occurs in heating mode.	
When stopped by remote controller, outdoor unit fan is sometimes operating for a while even though outdoor compressor is stopped.		Fan rotating makes operation smoothly.

CHECK BEFORE REQUIRING SERVICES

Symptom	Cause	Remedy
Air conditioner does not run at all although power is turned on.	Power failure or after power failure	Press ON/OFF operation button on remote controller again.
	Operation button is turned off.	<ul style="list-style-type: none"> • Switch on power if breaker is turned off. • If breaker has been tripped, consult your dealer without turning it on.
	Fuse blow out.	If blown out, consult your dealer.
Poor cooling or heating performance	Air intake or air discharge port of indoor and outdoor units is clogged with dust or obstacles.	Remove dust or obstruction.
	Wind speed switch is set to "Low".	Change to "High" or "Strong".
	Improper temperature settings	Refer to "TIPS FOR ENERGY SAVING".
	Room is exposed to direct sunlight in cooling mode.	
	Doors and /or windows are open.	
	Air filter is clogged.	Refer to "CARE AND CLEANING".
	Too much heat sources in room in cooling mode.	Use minimum heat sources and in a short time.
Too many people in room in cooling mode.	Reduce temperature settings or change to "High" or "Strong".	

If your air conditioner still does not work properly although you checked the points as described above, first stop the operation and turn off the power switch. Then contact your dealer and report the serial number and symptom. Never repair your air conditioner by yourself since it is very dangerous for you to do so. You also report if the inspection mark  and the letters E, F, H, L, P in combination with the numbers appear on the LCD of the remote controller.

TIPS FOR ENERGY SAVING

Avoid

- **Do not block the air intake and outlet of the unit. If either is obstructed, the unit will not work well, and may be damaged.**
- Do not let direct sunlight into the room. Use sunshades, blinds or curtains. If the walls and ceiling of the room are warmed by the sun, it will take longer to cool the room.

Do

- Always try to keep the air filter clean. (Refer to "CARE AND CLEANING".) A clogged filter will impair the performance of the unit.
- To prevent conditioned air from escaping, keep windows, doors and any other openings closed.

NOTE

Should the power fail while the unit is running

If the power supply for this unit is temporarily cut off, the unit will automatically resume operation once power is restored using the same settings before the power was interrupted.

SPECIFICATIONS

■ 4-Way Cassette 60x60

Model Name		S-12MY2U6	S-18MY2U6
Power Source		208 / 230 V, 60 Hz, 1PH	
Cooling Capacity	BTU/h	12,000	19,000
	kW	3.5	5.6
Heating Capacity	BTU/h	14,000	21,000
	kW	4.1	6.2
Sound Pressure Level (H/M/L)	dB(A)	(Cooling) 36/34/32 (Heating) 36/34/30	40/37/34
Unit Dimensions*	H : inch (mm)	12-9/16 (319)	12-9/16 (319)
	W : inch (mm)	27-9/16 (700)	27-9/16 (700)
	D : inch (mm)	27-9/16 (700)	27-9/16 (700)
Net Weight*	lbs. (kg)	45.3 (20.4)	45.3 (20.4)

* Values include the dimensions and weight of an optional ceiling panel.

■ Wall Mounted

Model Name		S-07MK2U6	S-09MK2U6	S-12MK2U6
Power Source		208 / 230 V, 60 Hz, 1PH		
Cooling Capacity	BTU/h	7,500	9,600	12,000
	kW	2.2	2.8	3.5
Heating Capacity	BTU/h	8,500	11,000	14,000
	kW	2.5	3.2	4.1
Sound Pressure Level (H/M/L)	dB(A)	36/33/29	37/34/29	40/36/29
Unit Dimensions	H : inch (mm)	11-7/16 (290)	11-7/16 (290)	11-7/16 (290)
	W : inch (mm)	34-9/32 (870)	34-9/32 (870)	34-9/32 (870)
	D : inch (mm)	8-7/16 (214)	8-7/16 (214)	8-7/16 (214)
Net Weight	lbs. (kg)	20 (9)	20 (9)	20 (9)

MEMO

MEMO

MEMO

