# electric

## INSTRUCTION AND INSTALLATION MANUAL



### CEILING MOUNTED CASSETTE AIR CONDITIONER

Compact Cassette	eiQ-CRFC18K	18,000 BTU
Round-Way Cassette	eiQ-SSRFC24K	24,000 BTU
Round-way Casselle	eiQ-SSRFC36K	36,000 BTU
Round-Way Cassette	eiQ-SSRFC48K	48,000 BTU
(3 Phase Outdoor)	eiQ-SSRFC60K	55,000 BTU

Thank you for choosing an electriQ Air Conditioner Please read this user manual before using this innovative Air Conditioner and keep it safe for future reference.

#### CONTENTS

CONTENTS	2
SAFETY INSTRUCTIONS	3
HOW AIR CONDITIONERS WORK	5
OPERATION	6
PARTS	6
PANEL	7
OUTDOOR UNIT (DRAWINGS ARE FOR REFERENCE ONLY)	8
REMOTE CONTROL	9
MAINTENANCE	14
END OF SEASON	15
START OF SEASON	15
REPLACING THE BATTERIES	15
INSTALLATION GUIDE	16
TOOLS RECOMMENDED FOR INSTALLATION	18
INSTALLATION OF THE INDOOR CASSETTE UNIT	19
DRAINAGE PIPE INSTALLATION	24
PANEL INSTALLATION	26
INSTALLATION OF THE OUTDOOR UNIT	27
CONDENSATE DRAINAGE OF THE OUTDOOR UNIT	29
REFRIGERANT PIPE INSTALLATION	30
ELECTRICAL CONNECTION OF THE AIR CONDITIONER	36
TEST RUN	39
TROUBLESHOOTING AND SELF DIAGNOSIS	40
TECHNICAL SPECIFICATION	43
APPENDIX	46

#### SAFETY INSTRUCTIONS

#### **IMPORTANT!**

- Carefully read the instructions before operating the unit
- This appliance comprises of a cassette unit, a panel and an outdoor unit. The cassette is
  designed exclusively for indoor installations while the external condenser can be installed
  outside while still away from flood water or snow line.
- Always place the unit on a dry and stable surface. Install the outdoor unit on a wall with wall-mounting brackets or fix to a floor slab with special floor mounting slab bolts or brackets away from flood or snow lines.
- This appliance is intended for permanent installation into a fixed structure, and should not be installed on vehicles.
- The outdoor part of the air conditioner unit must always be stored and transported upright, otherwise irreparable damage may be caused to the compressor; if in doubt we suggest waiting at least 24 hours before starting the unit.
- European Union regulations requires for an F-Gas trained engineer to handle any operation where non-qualified intervention could cause fluorinated gas to escape. A commissioning certificate must be issued with any installation.
- This air conditioner contains R32 with a GWP of 675.
- This air conditioner has been tested and is safe to use. However, as with any electrical appliance use it with care.
- Disconnect the power before dismantling, assembling or cleaning.
- Never connect the unit to an electrical outlet using an extension cord. Both the indoor and outdoor units must be hardwired by a qualified electrician.
- Never operate this appliance if the cord is damaged. Ensure the power cord is not stretched or exposed to sharp objects or edges.
- A damaged supply cord should be replaced by the manufacturer or a qualified electrician in order to avoid a hazard.
- Avoid touching any moving parts within the appliance.
- Never insert fingers, pencils or any other objects through the guard
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities. It is also not intended for use by those with a lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety. Do not leave children unsupervised with this appliance.
- Do not clean the unit by spraying it or immersing it in water.
- Any service other than regular cleaning or filter replacement should be performed by an authorized service representative or a qualified air conditioning engineer. Failure to comply could result in a voided warranty.
- This air conditioner is intended for cooling / heating a room to a suitable level for human comfort, and should not be used for any other purpose such as cooling food.
- Avoid restarting the air conditioning unit unless 3 minutes have passed since being turned off. This prevents damage to the compressor.
- Never use the mains as a switch to start and turn off the air conditioning unit. Use the provided ON/OFF button located on the remote control.
- The indoor unit should not be installed in laundry or wet rooms.
- After cleaning the mesh filter, reinstall it as soon as possible; do not operate the unit without the mesh filter; otherwise it may affect the operation of the unit.
- Lightning and other electromagnetic radiation sources may affect the operation of the unit.
   During these conditions, disconnect the power supply and then power on after the

- influence has been eliminated.
- The operation parameters and protection device settings have been set during production; these settings must only be changed by a qualified engineer with understanding of their usage as incorrect settings could disable the unit's protection features leading to damage of the unit.
- The unit must be sited far from any fire hazard. In case of fire due to short circuit, immediately
  disconnect the power and extinguish the fire with a dry powder fire extinguisher. The unit
  must only be installed by a qualified F-gas registered engineer.
- Decommissioning or moving of the unit must only be carried out by a qualified F-gas registered engineer.
- Do not operate or store inflammable or explosive articles around or below the unit; otherwise it may lead to a fire hazard.
- If the unit is not to be used for a while, turn off the mains supply so as to avoid accident.
- Avoid moisture ingress to the electric control system; otherwise it may lead to short circuit or damage to the machine.
- Please ensure the desired temperature is set correctly, especially when elderly, children or people with limited mobility or mental capability are within the room.
- In case of breakdown, the user should report the fault to the retailer or manufacturer for consultation and repair rather than attempting diagnosis or repair; attempted repairs of the unit by non-professional staff may lead to personal injury or damage to the unit, and may invalidate the warranty.
- In case of refrigerant leak, the stress meter will stop the operation of unit, a qualified F-gas engineer should be contacted to arrange service;
- The refrigerant may discompose into a harmful gas if allowed into contact with an open fire.
- Do not touch the exhaust side pipe fittings to avoid scalding since the temperature may be in excess of 100°C.
- Sharp edges and the fin surfaces must not be touched to prevent the risk of cuts or injury.



#### **WARNING**

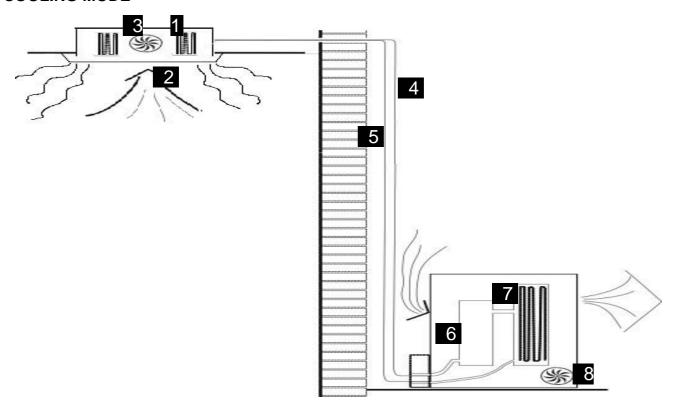
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (For example: open flames, an operating gas appliance or an operating electric heater)
- Do not pierce or burn.
- Be aware that refrigerants may not contain an odour.

#### **ENERGY SAVING AND UNIT SAFETY PROTECTION TIPS**

- Do not cover or restrict the airflow from the outlet or inlet grills.
- For maximum performance the minimum distance from a wall or objects should be 50cm.
- Keep the filters clean. Under normal conditions, filters should only need cleaning once every four weeks (approximately). Since the filters remove airborne particles, more frequent cleaning maybe necessary, depending on the air quality.
- For the initial startup set the fan speed to maximum and the thermostat to 4-5 degrees lower than the current temperature. After, set the fan switch to low and set the thermostat to your desired setting.
- To protect the unit we recommend not using the cooling mode when the ambient indoor temperature is higher than 35°C.
- To protect the unit we recommend not using the heating mode when the indoor ambient temperature is lower than 7°C. Performance will be reduced at lower temperatures.
- Note the manufacturer operating temperature ranges at the end of this user manual.

#### **HOW AIR CONDITIONERS WORK**

#### **COOLING MODE**



The compressor (6) in the external unit compresses the refrigerant into a high-temperature, high-pressure gas. When this gas flows along the cooling fins of the condenser (7), heat is exuded and the gas condenses into a liquid, which is then led to the evaporator (1) in the indoor unit. The liquid expands into a gas at a low temperature and low pressure. This gas absorbs the warmth of the air in the room, and a fan (3) draws the air through the filter and over the evaporator (1), blowing the cooled air back into the room. The heat is moved to the compressor along with the gas. A fan (8) draws air over the condenser and blows the warm air away.

1. Evaporator

2. Filter

3. Evaporator Fan

4. Gas Line

5. Liquid line

6. Compressor

7. Condenser

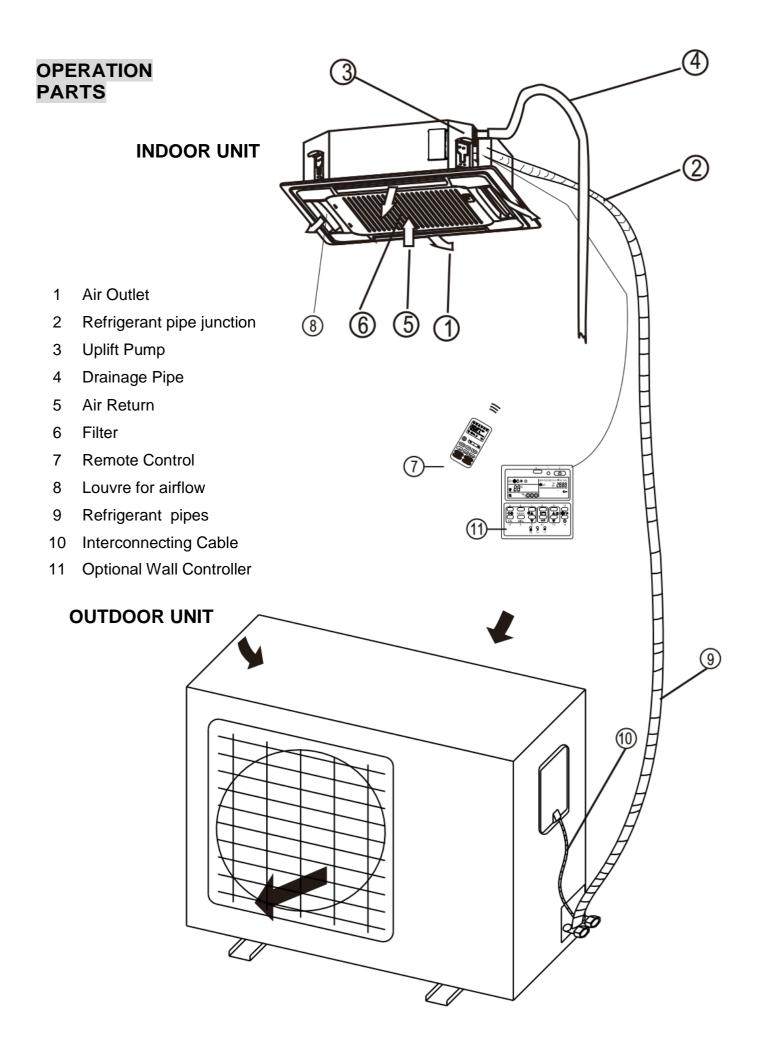
8. Condenser Fan

#### **HEAT PUMP MODE**

The system operates in reverse: the condenser works as an evaporator, the evaporator as a condenser: warm air is blown into the room. It is ideal as a maintenance heating when outside temperature is not too low and when the indoor temperature is more than 7°C.

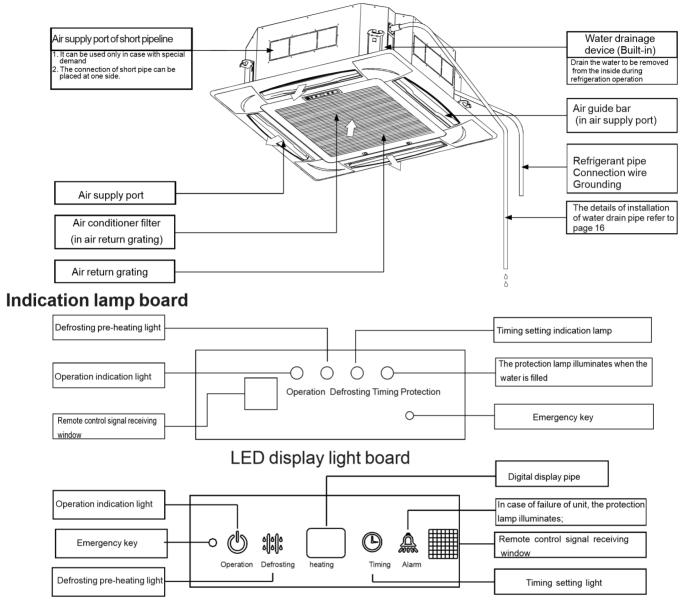
#### **DEHUMIDIFYING**

As with cooling, the moisture in the air condenses on the cold evaporator at room temperature acting as a powerful dehumidifier.



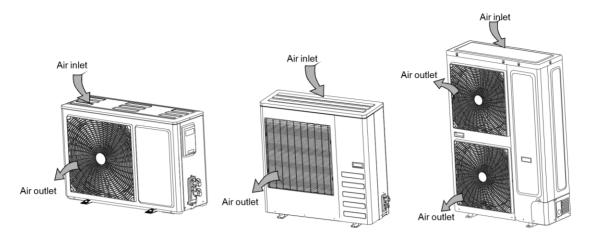
#### **PANEL**

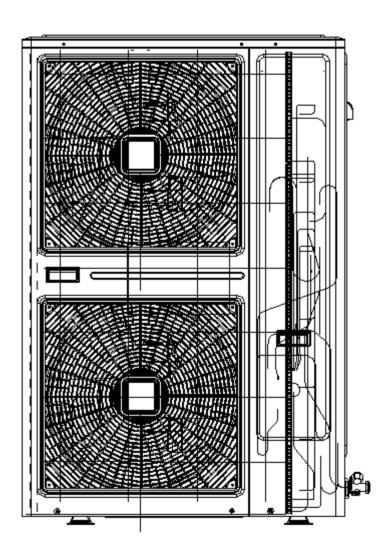
#### Indoor unit



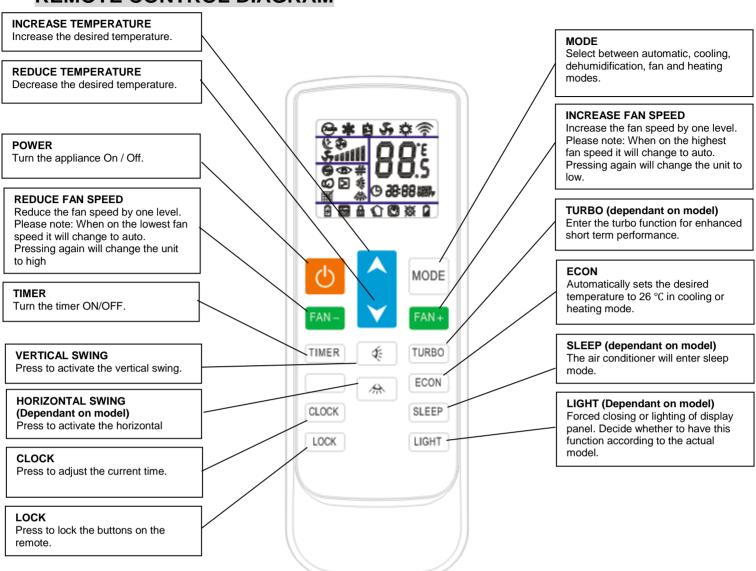
Digital pipe display light board

#### **OUTDOOR UNIT (DRAWINGS ARE FOR REFERENCE ONLY)**





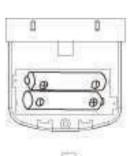
#### REMOTE CONTROL DIAGRAM

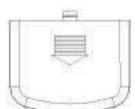


#### **NOTICES FOR REMOTE CONTROL:**

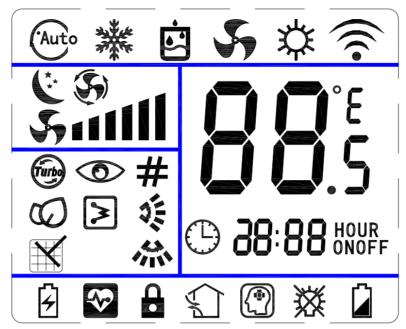
- 1. Do not place the remote control near high temperature heat sources.
- 2. Do not leave the remote control exposed to the direct sunshine.
- 3. Be careful not to drop the remote as this may lead to damage.
- 4. There must be no barrier between the signal receiver and remote control as this may affect communication between them.
- 5. Do not allow the remote control to be splashed or immersed in water.
- 6. Do not place heavy items on top of the remote control.

Note: In case of failure of the remote control, please remove the back cover and replace the batteries, before repeating the operation; if the failure still exists, please run the air conditioner using the emergency operation method, and contact the manufacturer or retailer.





#### **REMOTE CONTROL DISPLAY**



		MODES	OTHER ICONS		
Auto	AUT	O MODE		СГОСК	
****	cod	DLING MODE	**	SLEEP FUNCTION	
	DEH	IUMIDIFIER MODE	Turbo	TURBO FUNCTION	
5	FAN	MODE	8	ECON FUNCTION	
⇔	HEA	TING MODE	X	CLEANING FUNCTION	
-	TEMPERATURE DISPLAY		œ	REMOTE LOCKED	
88°	CURRENT TEMPERATURE Ranges between 16 - 32°C		BATTERY LOW		
		FAN SPEED	6	AUTO CONFIG	
5,111		LENGTH OF BAR INDICATES FAN SPEED	<u>(</u>	POWER SAVING MODE	
	AUTOMATIC FAN SPEED		\$	HEALTH MODE	
TIMER			INTELLEGENT MODE		
HOUR ON	ON TIMER		滋	BACKLIGHT OFF	
HOUR OFF	OFF	TIMER	#	ADDRESS	

#### REMOTE CONTROL FUNCTIONS

#### **POWER**

This button will turn the air conditioner On and Off.

- 1. When first powered on, air conditioner will start with the default settings:
  - Desired temperature 25°C
  - Automatic mode and Automatic fan speed.
  - Vertical and Horizontal Swing.
  - TURBO, Sleep, Timer and lock off.
- 2. When powered on subsequently the unit will continue with the previously used settings but sleep, TURBO, ECON and timer functions will be cancelled if previously activated.

#### **MODE**

- 1. Press this button to change between Automatic, cooling, dehumidify, fan and heating modes.
- 2. The dehumidification mode is set with a desired temperature of 25°C and the temperature cannot be adjusted.

#### REDUCE TEMPERATURE ▼

- 1. When pressing this button, the desired temperature will be reduced by 1°C. When pressing this button in dehumidification and fan modes, the desired temperature will not be adjusted.
- 2. After the clock button has been pressed (The clock icon will flash), this button is used to set the time.

#### INCREASE TEMPERATURE A

- 1. When pressing this button, the desired temperature will be increased by 1°C. When pressing this button in dehumidification and fan modes, the desired temperature will not be adjusted.
- 2. After the clock button has been pressed (The clock icon will flash), this button is used to set the time.

#### **VERTICAL SWING - EXTERNAL FLAPS (Dependant on Model)**

- 1. Press this button to change the vertical swing between fixed position and swing operation.
- 2. Press this button in dehumidify mode to close the external flaps.

#### **HORIZONTAL SWING - INTERNAL FLAPS (Dependant on Model)**

- 1. Press this button to change the horizontal swing between fixed position and swing operation.
- 2. Press this button in dehumidify mode to close the internal flaps.

#### **REDUCE FAN SPEED**

- 1. Press this button to reduce the fan speed. When going below low, the unit will enter Automatic mode. When pressed again the fan speed will be set to high.
- 2. In dehumidify mode, the fan speed is fixed to low and is not adjustable.

#### **INCREASE FAN SPEED**

- 1. Press this button to increase the fan speed. When going above high, the unit will enter Automatic mode. When pressed again the fan speed will be set to low.
- 2. In dehumidify mode, the fan speed is fixed to low and is not adjustable.

#### **TIMER**

The timer can be used as a start timer or a shutdown timer and can be set between 1 hour and 24 hours in 1 hour increments. This is a one use timer, and multiple timers cannot be combined.

#### START TIMER

- 1. With the air conditioner turned off, press the timer button, before using the ▲ and ▼ buttons to set in how many hours you would like the unit to start.
- 2. The unit will operate with the settings used before the appliance was turned off.

#### **SHUTDOWN TIMER**

1. With the air conditioner running with the desired setting, press the timer button, before using the ▲ and ▼ buttons to set in how many hours you would like the unit to turn off.

#### **TURBO** (Dependant on model)

- 1. The TURBO button will not work in Automatic, Dehumidify or fan modes.
- 2. Press this button in cooling or heating modes to turn the TURBO function on or off.
- 3. When in the TURBO mode the fan speed will not be displayed.
- 4. Switching modes or pressing the sleep button will turn off TURBO mode.

#### **ECON**

- 1. The ECON button will not work in automatic, dehumidify or fan modes.
- 2. Press this button in cooling or heating modes to turn on ECON mode.
- 3. When in ECON mode, the desired temperature is set to 26°C.
- 4. When ECON mode is turned off the desired temperature will return to the value before the button was pressed.
- 5. Switching between modes will turn off ECON mode.

#### **SLEEP**

- 1. Sleep mode can be activated in all modes apart from Fan mode.
- 2. Switching mode will cancel the sleep function.
- 3. When sleep mode is activated the fan speed will automatically be set to low, but can still be increased if necessary (except in dehumidification mode).

#### **LIGHT (Dependant on Model)**

1. Press to turn the backlight on and off.

#### **CLOCK**

- 1. This button is used to set the clock. Press to adjust the hour value, the hour figure on the LCD will flash. Use the ▲ and ▼ buttons to adjust.
- 2. When the hour is set, press the clock button again to adjust the minute value, the minute figure on the LCD will flash. Use the ▲ and ▼ buttons to adjust.
- 3. After adjusting, press the clock button again to confirm the time set. If no buttons are pressed for 3 seconds, the changes will be cancelled and the remote will return to normal operation.

#### **LOCK**

- 1. Press the Lock button to lock the buttons on the remote control.
- 2. When the remote is locked, the only button still active is the lock button

#### **BUTTON COMBINATION:** FAN - + FAN +

Will change the remote from showing 3 fan speeds to 6 fan speeds. As the air conditioners only supports 3 speeds, 1/2 is Low speed, 3/4 is Medium speed, and 5/6 is high speed.

#### IMPORTANT INFORMATION

#### **AUTO RESTART**

The air conditioner will automatically restart when electricity is restored after a power cut. If in doubt, check the settings.

#### RANGE OF INTERNAL THERMOSTAT

The internal thermostat can be set at a desired temperature between 16 and 32°C. Note that whether the desired value is achieved depends on the room size, temperature and insulation of the room.

#### RANGE OF HEAT PUMP FUNCTION

The heat function can be used when the external ambient temperature is above -15°C. The performance of the heat pump will degrade with lowering external temperatures. Please note the performance will reduce when the outdoor temperature drops below 5°C.

#### **CAPACITY**

The required cooling or heating capacity depends greatly on the location and/or use of the room where the air conditioner is installed. Strong sunlight and the presence of people, lights or equipment creates an additional heat load. Normal living spaces require about 350 Btu per square metre of floor surface. In strong sunlight or if other sources of heat are present, this may be as much as 1200 Btu per sqm.

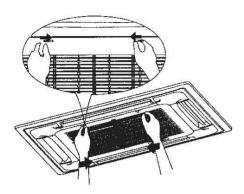
Tip: On warm days, let the air conditioner cool the room as much as possible during the night and keep the temperature constant from night to daytime.

#### MAINTENANCE

#### **FILTERS**

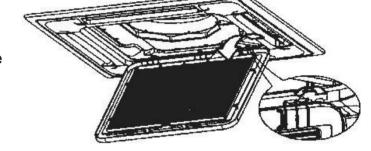
Ensure the power is turned off to the unit before attempting to service the filters.

#### **REMOVING THE GRILL**



 Push the two grill switched towards the centre to unhook the grill before pulling the centre of the panel downwards.

- Care must be taken with the electrical connectors (connecting the panel to the main cassette) If necessary these should be disconnected.
- 3. Hold the grill at a 45° angle to the unit and lift to unhook from the rear of the panel.



4. The filter can then be removed from the grill for cleaning.

#### **CLEANING THE FILTERS**

- Clean the air filter with a vacuum cleaner or rinse with clean water.
- If the filter is heavily soiled, a soft brush should be used with mild detergent.
- Ensure the filter is fully dried before reinserting back into the grill and reattaching to the unit.

#### **CLEANING THE OUTDOOR UNIT**

While the unit is disconnected from power. Remove dirt and keep the air intake and exhaust openings free of debris, etc. Cleaning with chemicals may cause damage.

#### **END OF SEASON**

If the air conditioner is not going to be used for an extended period:

- Set in fan mode on a slightly warm day so that the inside of the appliance dries out.
- Switch off the power at the fuse box and remove the batteries from the remote control.
- · Clean the filters.
- Remove the batteries from the remote control.
- · Disconnect the power from the appliance

#### START OF SEASON

If the air conditioner is to be used again after an extended period:

- Check that the air intake and exhaust openings of the interior and exterior units are not blocked. Remove any dirt or debris that has accumulated.
- · Check that the filter is installed within the indoor unit and is clean.
- Check that the condensation outlet drains properly and there is no dirt or organic blockage (otherwise leakage may occur)
- Install 2 AAA batteries in the remote control.
- Check that the wiring between the cassette and the panel is connected, and there is no damage to the interconnecting wires.
- Turn the appliance on, set the time and desired setting.

#### REPLACING THE BATTERIES

- Remove the cover from the rear of the remote control.
- · Replace the AAA batteries, ensuring the correct polarity.
- Reinstall the cover on the rear of the remote control.
- If nothing is displayed on the remote, try pressing the power button. If still no response, check the polarity of the batteries and try replacing.



#### **INSTALLATION GUIDE**

#### **SAFETY**

- Only qualified personnel should install this appliance. This installation manual is intended
  for use by individuals possessing adequate backgrounds and qualifications in electrical,
  electronic, refrigerant and mechanical fields. Any attempt to install or repair the appliance
  may result in personal injury and property damage.
- The manufacturer and retailer cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.
- The units are designed for permanent installation.
- The equipment is designed for domestic or office use and we are not making any endorsements for use in industrial or maritime environment.
- Do not place near sources of heat, vapours, industrial machine oil or other flammable gases.
- High-frequency waves generated by radio equipment, welders and medical equipment will interfere with the normal operation of the unit.
- Install this device only when it complies with local/national legislation, ordinances and standards.
- Check the mains voltage and frequency. The information, specifications and parameter are subject to change due to technical modifications or improvement without any prior notice. The accurate specifications are presented on the nameplate label.
- Please read this installation manual completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with all European, national and / or local directives and standards and must be done by authorized personnel only.
- Always make sure to wear the correct personal safety protections such as protective eyewear, gloves, ear protection etc.
- This air conditioner contains a refrigerant and can be classified as pressurized equipment. Therefore always contact an authorized air conditioning engineer for installation and maintenance of the air conditioner.
- The air conditioner must be inspected and serviced on an annual basis by an authorised air conditioning engineer.
- Each indoor unit has a separate refrigerant circuit, and as such each circuit must be individually pressure tested and purged during installation.
- Rating: This unit must be only connected to a suitable earthed power source.
- The unit should use an independent power supply switch and a separate circuit to other electric appliances; use a power supply cable with specified section area to supply the unit and equip the circuit with the correct rating of circuit breaker (with electric leak protection function).
- Installation must be in accordance with the regulations of the country where the unit is used.
- Diagrams and pictures provided within the manual are for guidance only. Due to continual
  product development, if there is any variance between the manual and the product
  received, the information provided on the product should be followed.
- The outdoor unit must be mounted in an area sheltered from excessive rain and direct sunlight; we will not be liable for problems caused by installation in an unsuitable location.

- The appliance must be installed 2 3m above floor level.
- The unit must be mounted with an earth wire with the specified section area and securely
  mounted; do not connect the earth wire with the earth wire of gas pipelines, water pipelines,
  arrester conductor or phone systems so as not to cause an electric shock risk.
- The main power supply switch of unit should be placed out of reach of children so as not to cause a hazard.

#### INDOOR UNIT POSITION

The air inlet and outlet vent should be away from any obstruction, ensuring that there is a good airflow through the whole air-conditioned space. Select a position where the condensing water can be easily drained out, and the indoor unit can be easily connected to outdoor unit. The ceiling where the unit is fixed should be strong enough to withstand the full weight and vibration of the unit. The unit should be accessible for service and maintenance. The height of the installed unit should be more than 200cm from the floor. The air conditioner must not be installed in a wet environment such as a bathroom, shower or swimming pool etc.

#### **OUTDOOR UNIT POSITION**

A convenient position, dry and well ventilated, outside of direct sunlight or strong winds, which is not on a flood line and where noise and airflow does not cause interference or inconvenience. Select a location where there are no obstructions to the inlet and outlet vents. The location should be able to withstand the full weight and vibration of the outdoor unit and permit safe installation.

Make sure that the outdoor unit is installed in compliance with the installation dimension diagram with easy maintenance access. Select a place where it is out of reach of children. Do not block utilities access or fire escapes.

The external unit must be lifted and put in place by two people.

#### **NOTES:**

- 1. Only use a power supply with the correct ratings, making sure the correct sized power cables are used
- 2. The appliance shall be installed in accordance with standard wiring regulations by qualified personnel
- 3. Only replace fuses according to their printed rating or corresponding pcb boards.

#### TOOLS RECOMMENDED FOR INSTALLATION

Please note this is not an exhaustive list, and is provided as guidance for the most commonly required tools.



Electric Drill



Hammer



Screwdrivers



Tape Measure



Core Hole Cutter



Spirit Level



Number 14 (7mm) Masonry Drill



Pencil and Chalk



4 x M10 threaded rods



Small Stepladder



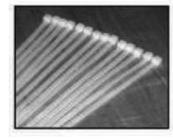
7mm Wall Plugs



Protective Glasses and Mask



Pipe and Cable Detector



4 inch Plastic Ties



2 Inch Pipe Clips



Circuit Breaker



Garden Gloves



**Dust Sheets** 



Foam Filler



Silicone Sealant

#### INSTALLATION OF THE INDOOR CASSETTE UNIT

Where possible the following areas should be avoided to avoid potential problems with the appliance and/or safety risks:

- 1. Where flammable gas is likely to be in the air.
- 2. Where the air has a high salt content
- 3. Where caustic gasses are likely to be in the air.
- 4. Which is unable to safely bear the weight of the unit
- 5. With high levels of electromagnetic interference.
- 6. Where the unit may be subjected to acid or alkaline solutions.
- 7. With high levels of humidity.

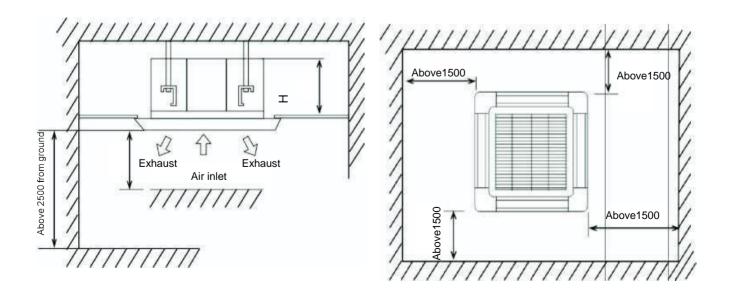
Select the installation location taking consideration of the following:

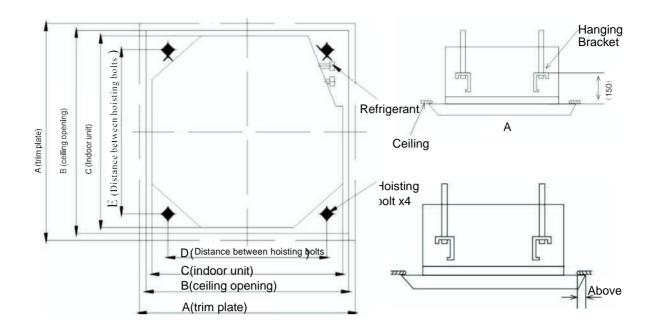
- 1. Route of the pipework / wiring
- 2. Access to the upper parts of the unit for connection of the pipework/wiring after hanging the unit
- 3. Ability of the area to support the weight of the unit.

Before hanging the unit the refrigerant pipes, drain pipe and connection wires should be led to the location of the outdoor unit. Confirm the size of the indoor unit and ceiling opening using the supplied installation template.

#### SPACE REQUIRED FOR INSTALLATION

Model	Machine body height (H) mm
eiQ-CRFC18K	267
eiQ-SSRFC24K	230
eiQ-SSRFC36K	285
eiQ-SSRFC48K	285
eiQ-SSRFC60K	285





Unit: (mm)

Model		Size				
Wiodei	А	В	С	D	E	
eiQ-CRFC18K	650	610	565	528	528	
eiQ-SSRFC24K	890		840	680	780	
eiQ-SSRFC36K		900				
eiQ-SSRFC48K		890				
eiQ-SSRFC60K						

#### PREPARATION WORK ON THE CEILING

The indoor cassette unit is designed to be supported by 4 x threaded rods, connecting it to a solid structure above.

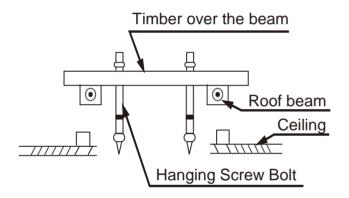
The unit must be installed in accordance with current building regulations and the Installation method should be adjusted depending on the structure of the ceiling. If in any doubt about what installation method is suitable, independent advice should be sought.

After opening a hole, ensure that the ceiling is horizontal and strong to prevent vibration during operation. Reinforcement of the ceiling around the opening may be necessary.

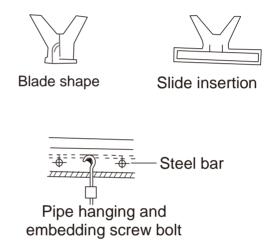
If beams require cutting to accommodate the unit, the remaining beams around the area should be reinforced to compensate for the extra weight they are now supporting.

#### **WOODEN CONSTRUCTION**

Fix a square length of timber over the roof beam and install the hanging screw bolts into it.

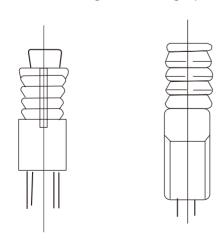


#### **NEW CONCRETE PANELS**

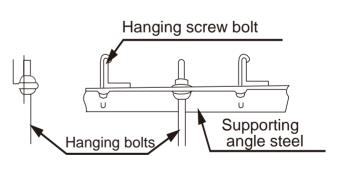


#### **FINISHED CONCRETE PANELS**

Install the hanging hook using expandable bolts into the concrete to a depth of at least 45mm to prevent them coming use during operation.



#### STEEL ROOF BEAM STRUCTURE



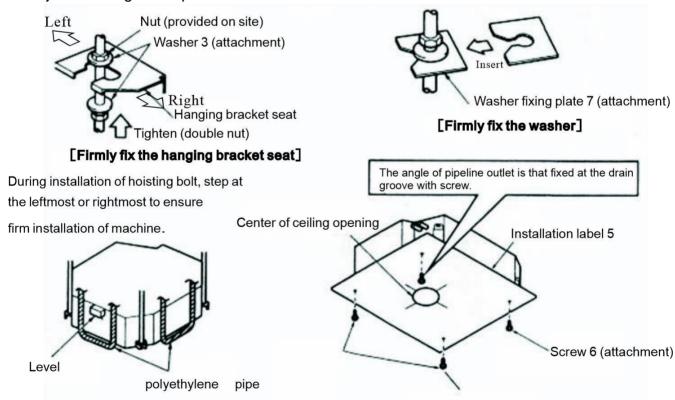
#### HANGING THE CASSETTE UNIT

#### WHEN THERE IS NO INSTALLATION POSITION ON THE CEILING

- 1. Attach the hanging bracket seat to the hoisting bolt; be sure to use bolt and nut separately at upper and lower head of the hanging bracket seat to firmly fix the hanging bracket seat; use locating plate 7 to avoid the washer coming-off.
- 2. For the dimensions of the ceiling opening please refer to the installation drawings. The details refers to the building agent or carpenter. The indoor unit centre is marked on the attached installation drawing. As shown in the figure below, the screws 6 (3 pcs) mount the installation label on the unit; fix the angle of the drain channel at the pipeline outlet with a screw.
- 3. Adjust the unit to the correct installation position.
- 4. Check whether the unit is level. The indoor unit is equipped with an embedded drain and float switch. Check whether the four angles of unit are level.
- 5. Remove the washer fixing plate 7 ensuring the water-proof washer remains in position and tighten the upper nut.
- 6. Remove the installation label.

#### WHEN THERE IS INSTALLATION POSITION ON THE CEILING

- 1. Temporarily install the indoor unit Attach the hanging bracket on the hoisting bolts. Be sure to use bolt and nut separately at upper and lower head of the hanging bracket seat to firmly fix the hanging bracket seat; use locating plate 7 to avoid the washer coming-off.
- 2. Adjust the height and position of unit.



[Fix the installation label]

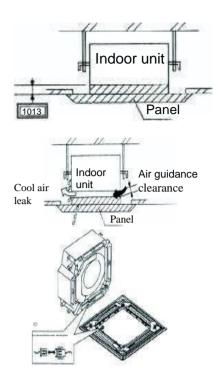
#### HOISTING HEIGHT OF INDOOR UNIT

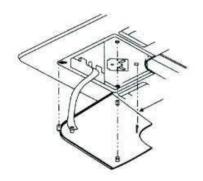
Please adjust the hoisting height of indoor unit to make the dimensions of indoor unit under the ceiling.

- 1. When there is gap between indoor unit and panel, condensation may occur.
- 2. Line of trim panel (see right figure)
  - a. Connect the cable for the louvre motor (on the trim panel).
  - b. If the connector is not connected, the louvres will not function. Properly connect the joint.
  - c. Confirm the wires for the louvre motor are not clamped between indoor unit and trim panel.

#### INSTALLATION OF AIR RETURN GRATING AND CAP

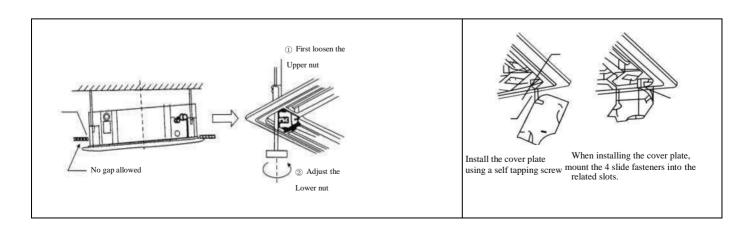
- A. Install the air return grating
- B. Install in reverse sequences to "Preparation of trim panel".





Install in reverse sequences to "Preparation of trim panel". While rotating the air return grating, it can be installed in 4 directions. If necessary to adjust the installation direction of the air return grating as required by the user, the installation direction can be changed.

- 1. Firstly hang the air inlet grating onto the panel and then separately connect the connectors from the louvre motor and control box on panel to related connectors of body.
- 2. Re-install the air inlet grating in reverse sequence to those when removing the air inlet grating;
- 3. Re-install the mounting cover plate.
- 4. Fix the mounting cover plate rope onto the lug (see the right figure); Gently press the mounting cover plate in the panel.



#### DRAINAGE PIPE INSTALLATION

Please confirm there are enough space at unit installation position to mount the drainage pipeline, and ensure the drain pipe diameter is no less than that of connection pipe. (Polyethylene pipe, dimension: 25mm; outer diameter; 32mm)

- 1. The drain pipe should be short, and the slope of sagging should be equal to and more than 1%, to. ensure drainage smoothness and avoid condensate lag
- 2. If impossible to ensure adequate slope for the drainage hose, a drainage lift pipe shall be installed.
- 3. To avoid bending of drainage hose, it will keep 1 to 1.5m distance between hanging bracket.



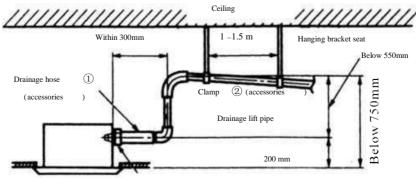
- 4. Use the attached drainage pipe ① and clamp ②.

  Insert the drainage hose into drainage socket till the white rubber belt. Tighten the clamp until the distance of screw head from hose is less than 4mm.
- 5. Condensation may lead to water leak, so it is necessary to fulfil thermal insulation construction for following two components.
  - 1. Drainage pipe in room;
  - 2. The drainage socket refers to the figure below; insulate the thermal for clamp and drainage pipe with attached large sealing pad  $\widehat{10}$ .



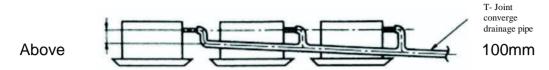
#### Notice for the drainage lift pipe:

- 1. The installation height of drainage lift pipe shall be less than 550mm.
- 2. The exhaust lift pipe shall be perpendicular to the unit and be no more than 300mm from the unit.

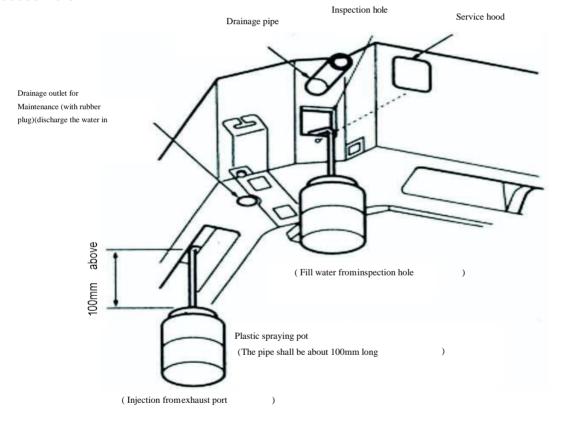


#### Notes:

- 1. Do not make the attached drainage hose subjected to excess force or bending and twisting. (It may lead to water leak)
- 2. Please install according to following procedure if several drainage pipes converge.



The specification of selected converge drainage pipe shall be suitable for operation capacity of unit. After completed the installation, slowly fill 2000cc water in the exhaust port or inspection hole and check whether the drainage is smooth; after installation of electric circuit, check the drainage conditions during refrigerant operation and the detailed instructions refer to "test run". Water injection method Access hole

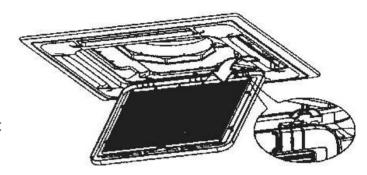


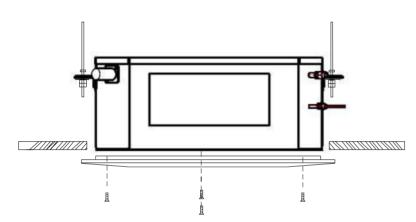
#### PANEL INSTALLATION

The panel should be installed after the pipework and wiring have been connected.

Following installation ensure that the gaps between the panel and the ceiling are sealed to prevent air and liquid leakage.

- 1. Push the two grill switched towards the centre to unhook the grill before pulling the centre of the panel downwards to remove it from the panel.
- 2. Hold the grill at a 45° angle to the unit and lift to unhook from the rear of the panel.





- Hold the panel against the cassette unit, lining up the red arrow on the electrical box with the one on the panel, before loosely fastening with the M6 bolts.
- Connect the cables for the step motors and display panel to the cassette following the wiring diagram provided, ensuring that the cables will not get trapped when tightening the panel.
- 5. If the optional wired display panel is also to be installed, it should be also be connected to the cassette at this point.
- 6. Check the position of the panel before fully tightening the bolts, so that the panel is flush to the cassette unit.
- 7. Reattach the Grill to the panel following the reverse of removal.
- 8. If there is a gap between the panel and the ceiling after tightening the screws, readjust the height of the cassette, ensuring it is kept level.

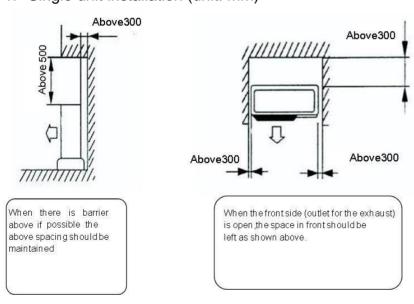
#### INSTALLATION OF THE OUTDOOR UNIT

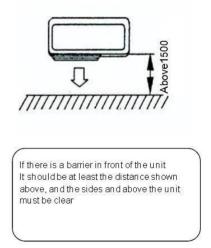
In order to ensure the correct working of the air conditioner, in the choice of installation location, the following guidelines must be followed:

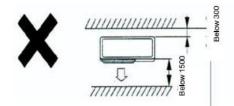
- 1. Upon installation of the outdoor unit, the air discharged outdoors should not return, and enough space for maintenance must be left around the machine.
- 2. The ventilation must be excellent in mounting points, so that the machine can intake and discharge sufficient air. Make sure there are no obstacles for air inlet and outlet; any obstacles should be removed.
- 3. The installation location is strong enough to withstand the weight of the outdoor unit, and has the effect of sound insulation and vibration reduction. And to ensure that outlet air and noise of the unit will not affect the neighbours.
- 4. Avoid direct sunlight, it's best to put up an sunshade for protection.
- 5. In the mounting position, rain and condensate water must be drained.
- 6. In the installation position, it must be ensured that the machine will not be buried in the snow, and not subject to the effects from garbage and mists.
- 7. In the installation position, it must be ensured that the air outlet is not facing the strong wind.

#### **INSTALLATION REQUIREMENTS AND MAINTENANCE SPACE (OUTDOOR UNIT)**

1. Single unit installation (unit: mm)



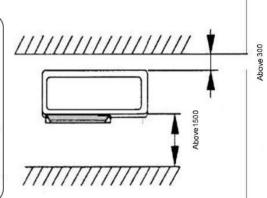




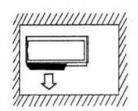
When there are barriers in front and to both sides, do not use the dimensions shown in the figure. Please refer to the figure on the right

When there are barriers at the front and backside, at the location with barrier and Poor air ventilation, to avoid shortcircuit of the outdoor unit, the heights and widths of barriers should be within the following range. (If front and back clearance meets The requirements, there will be be no special limit for bothsides.)

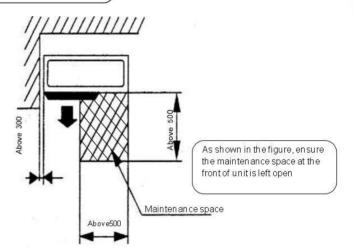
- A. Barrier width is 1.5 times or less than outdoor units
- B. Barrier width is 1.0 times or less than outdoor units





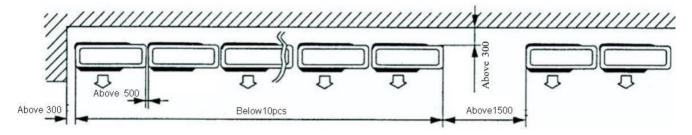


When there are barriers around, even if the upward side is open, it cannot be installed.

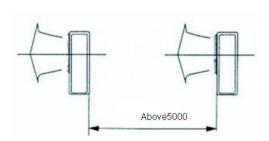


#### **MULTI UNIT INSTALLATION**

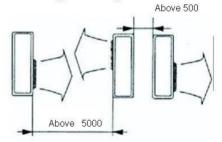
#### Parallel setting



#### B. Multi-row arrangement



#### C. Blowing arrangement



#### MOUNTING ON A ROOF OR OTHER WINDY POSITIONS

When the outdoor unit is to be mounted on the roof or place around which there is no building, it is necessary to avoid strong winds directly blowing into the air outlet of the outdoor unit. To avoid impairing the heating or cooling effect and failure of the outdoor unit heat exchanger due to inadequate air flow.

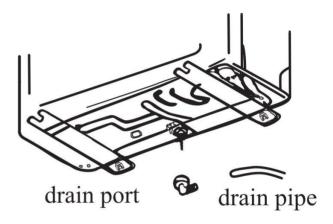
- A. When there is wall nearby, please locate the air exhaust facing the wall and keep about 500mm distance from the wall.
- B. When the air exhaust is affected by strong wind or wind direction, it is necessary to change the air intake unit position to make the exhaust port perpendicular to the wind direction.

#### CONDENSATE DRAINAGE OF THE OUTDOOR UNIT

When operating in heating mode condensate will collect and drain through the base of the outdoor unit. The air conditioner is supplied with an elbow joint which can be connected to the underside of the outdoor unit for drainage.

- 1. Connect the elbow joint to the drainage hole on the underside of the outdoor unit.
- 2. Connect a drain hose (not supplied) to the elbow joint and run downhill to your chosen drainage point.

Please note: The drainage is gravity fed, and so must run downhill.



#### REFRIGERANT PIPE INSTALLATION

#### Note:

- 1. Refrigerant pipe is not supplied with the unit, but a selection are available from the same retailer as the air conditioner.
- 2. A thermal insulation sleeve of more than 9mm thick and with favourable thermal insulation performance should be used to avoid condensation when selecting the refrigerant pipe.
- 3. When installing the drainage hose (not supplied), additionally procure the cable tray connection exhaust pipe with inner diameter of  $\phi$ 16, and bind up with the thermal insulation sleeve of 9mm thick to avoid condensation.

#### **DIMENSION OF REFRIGERANT PIPE**

Model	Refrigerant Liquid Pipe	Refrigerant Gas Pipe
	Diameter	Diameter
eiQ-CRFC18K	6.4 (1/4")	12.7 (1/2")
eiQ-SSRFC24K		
eiQ-SSRFC36K	0.52 (2/0")	15 00 (5/0")
eiQ-SSRFC48K	9.52 (3/8")	15.88 (5/8")
eiQ-SSRFC60K		

#### **FLARING THE PIPES**

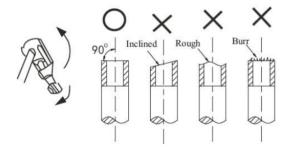
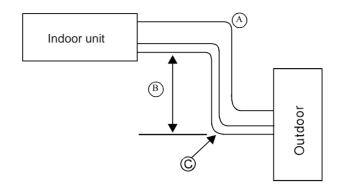


Fig. 4-1 Cutting Pipe of Connecting Pipe

Table 4-1 Flaring Dimension of Connecting Pipe

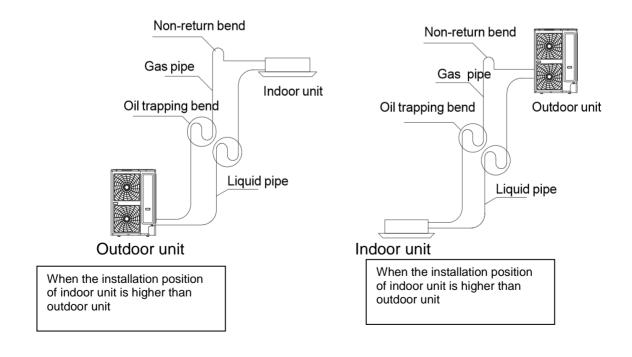
A (m	m)	
Maximum	Minimum	90°±4
8. 7	8.3	A A S
12.4	12.0	
15.8	15.4	\R0.4~0
19.0	18.6	
	Maximum 8.7 12.4 15.8	8. 7 8. 3 12. 4 12. 0 15. 8 15. 4

#### LENGTH AND HEIGHT DIFFERENCE OF ULTRA-LONG PIPING OF AIR CONDITIONING UNIT



	eiQ- CRFC18K	eiQ- SSRFC24K	eiQ- SSRFC36K	eiQ- SSRFC48K	eiQ- SSRFC60K
Max Pipe Length	15M	20M	50M	50M	50M
Max Height Difference	8M	10M	20M	20M	20M
Max Pipe bends	10	10	15	15	15

Note: When the height is more than 5m, set the oil trapping bend and non-return bend according to relative positions of outdoor unit and indoor unit.



#### **NOTES:**

The copper pipe used in the refrigeration lines are very soft, high pressure copper and prone to get damaged if not handled correctly. Try to avoid bending or stretching the pipework. Always ensure the pipes are protected when running through the wall to help prevent damage to the pipes.

To keep the allowed bending radius please make the packed soft pipes vertical before extending	<b>O</b>		Please do not extend only one side of the packed soft pipes.
Please make use of semicircle pulley to keep the allowed bending angle	A		Extreme bending could damage the pipes
Please use a twisting wheel to avoid improper bending.			Over bent soft pipes will lead to irregular bending
Please use rigid elbow to keep the bending angle while soft pipes operating.		¥	Undersize bending will damage the soft pipe.
Please keep the minimum bending angle while installing			Do not use short sharp angle bends.

#### STANDARD PIPELINES CONNECTION & AIR PURGING

No dust or any other particles, air or moisture should be allowed to enter the air conditioning system. Careful attention should be paid when pipeline connection for outdoor unit is made. Try to avoid repeated curves as much as possible; otherwise damage to the copper pipes may occur. Suitable wrenches should be used when the pipeline connection is done so as to ensure appropriate torque (refer to following torque table).

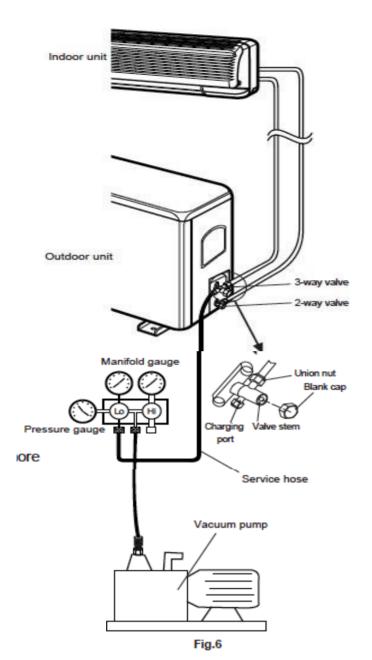
Excessive torque action might damage the joints while too little torque might lead to leakage.

#### Torque based upon the wrench to be used

Copper pipe diam.	Tightening torque	Strengthened tightening torque
6.35(1/4")	160kgf.cm(63kgf.inch)	200kgf.cm(79kgf.inch)
9.52(3/8")	300kgf.cm(118kgf.inch)	350kgf.cm(138kgf.inch)
12.7(1/2")	500kgf.cm(197kgf.inch)	550kgf.cm(216kgf.inch)
15.88(5/8")	750kgf.cm(295kgf.inch)	800kgf.cm(315kgf.inch)

#### Follow the procedures below:

- 1. Remove the dust caps from the indoor and outdoor units and the connecting pipe.
- 2. Align the joint of the connecting pipe between the indoor and outdoor and tighten the connecting nut by hand to prevent cross threading. Secure them with a wrench, applying the maximum torque as shown in the table above.
- 3. Pressure test and vacuum pump the pipework for each refrigerant circuit.
- 4. Remove the two valve core caps from the outdoor unit and turn on the high and low pressure valve cores with an socket wrench, then tighten the two valve core caps of the outdoor unit. Finally you can wrap hot insulating tape around the joints of indoor and outdoor units



#### AIR PURGING WITH VACUUM PUMP

- 1. Check that pipelines connection have been properly connected, remove the charging port cap, and connect the manifold gauge and the vacuum pump to the charging valve using service hoses as shown
- 2. Open the valve on the low-pressure side of the manifold gauge, then run the vacuum pump. Vacuum the indoor unit and the connecting pipes until the pressure in them lowers to below 1.5mmHG (The operation time for vacuuming is about 10 minutes). When the desired vacuum is reached, close the low pressure valve on the manifold and stop the vacuum pump.
- 3. Disconnect the service hoses and fit the cap to the charging valve.
- Remove the blank caps, and fully opens the spindles of the 2-way and 3-ways valves with a service valve wrench.
- 5. Tighten the blank caps of the 2way and 3-ways valves, applying the torque listed in the table above.

#### PRESSURE TEST, VACUUMING AND LEAK TEST OF CONNECTING PIPE AND INDOOR UNIT PIPELINE:

After installed the connecting pipe and indoor unit, firstly charge the nitrogen into the connecting pipe and indoor unit pipe to 3.0Mpa and keep the pressure for 24h; at same time, check for leaks with soap bubble at the connectors and welding positions; if no leak detected, discharge the nitrogen and vacuum with a vacuum pump (the vacuum degree shall be less than 30Pa), and then open the main machine valve for a test run; if the refrigerant pipe length is more than 5m, refill the refrigerant and refer to following table:

	eiQ-CRFC18K	eiQ-SSRFC24K	eiQ-SSRFC36K	eiQ-SSRFC48K	eiQ-SSRFC60K	
Refrigerant to be added per metre of liquid pipework above 5m.	0.012Kg	0.024Kg	0.024Kg	0.024Kg	0.024Kg	

i.e. If liquid pipe on an eiQ-SSRFC24K is 7m, amount of refrigerant to be added would be (7 – 5)\*0.024Kg, so 0.048kg should be added.

When refilling the refrigerant, use the needle valve on low pressure valve body of outdoor unit in refrigeration mode.

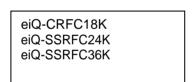
#### **GAS LEAKAGE INSPECTION**

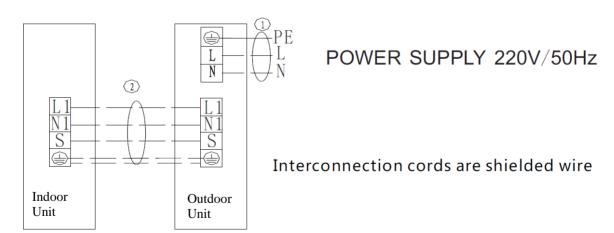
After the pipeline connection is done, use a leakage inspection device to carefully check if there is any leakage at the joints. This is an important step to ensure the quality of installation. Once a leak is detected, proper action should be taken immediately.

#### **ELECTRICAL CONNECTION OF THE AIR CONDITIONER**

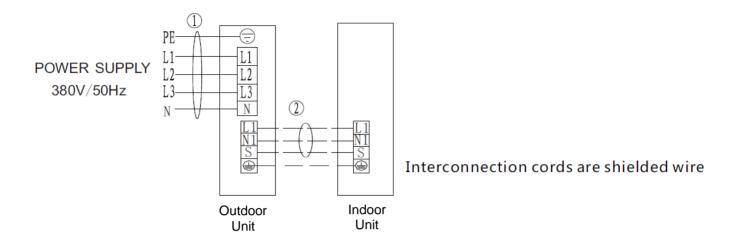
- The electrical connections can be found under the protective plastic cover. Remove this from the side of the outdoor unit to gain access to the electrical connections.
- Connect the indoor power and control wires with the matching outdoor wire as per the electrical diagram.
- Do not attempt to connect the wires in a different way to the diagram on the air conditioner as this could damage the unit and invalidate the warranty.
- Secure the wires and replace the cover before operating the unit.
- The appliance should be installed in accordance with national wiring regulations.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or a suitably qualified person in order to avoid a hazard.
- The unit is designed to be hard wired and a suitable switch with a contact separation
  of at least 3mm in all poles must be added to the fixed wiring.
- The air conditioner electrical wiring must follow the specific country regulations. If power cord is damaged must be replace by a qualified electrician.

Schematic wiring diagram of power supply (according to user power supply conditions and different models, execute wiring according to the schematic diagram shown in the figure below)

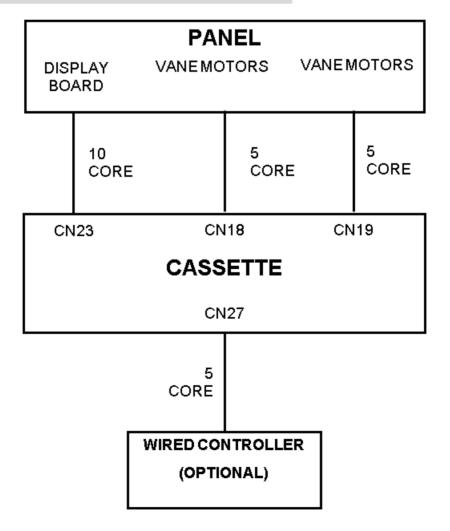




eiQ-SSRFC48K eiQ-SSRFC60K

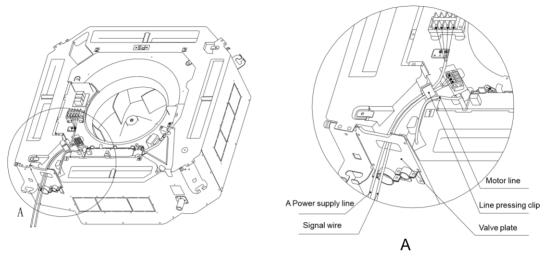


#### SIMPLIFIED PANEL WIRING DIAGRAM



#### **ELECTRIC CONNECTION OF INDOOR UNIT:**

- 1. Remove the cover plate of indoor unit electric appliance box.
- 2. Connect the power supply line and signal line with related terminals ash shown in the figure.
- 3. Open the wire pressing clip, pass the power supply line and signal line through the valve plate and firmly hold in the pressing clip.
- 4. Install the electric appliance box board.



Note: Only the wiring methods of signal line and power supply line are shown in in the figure; the wiring methods please refer to the wiring schematic diagram of power

supply.

	Outdoor Power Supply Line H05RM- F	Indoor Power Supply Line H05VV- F	Indoor / Outdoor Connection Line( no of Cores, Diameter)	Power Supply Method	Outdoor Min Fuse (A)	Indoor Min Fuse (A)
eiQ- CRFC18K	3 x 2.5mm <sup>2</sup>	N/A	4 x 2.5mm <sup>2</sup>	Outdoor Power Supply	16	N/A
eiQ- SSRFC24K	3 x 2.5mm <sup>2</sup>	N/A	4 x 2.5mm <sup>2</sup>	Outdoor Power Supply	16	N/A
eiQ- SSRFC36K	3 x 4.0mm <sup>2</sup>	N/A	4 x 2.5mm <sup>2</sup>	Outdoor Power Supply	40 (Single Phase)	N/A
eiQ- SSRFC48K	5 x 2.5mm <sup>2</sup>	N/A	4 x 2.5mm <sup>2</sup>	Outdoor Power Supply	20 (Three Phase)	N/A
eiQ- SSRFC60K	5 x 2.5mm <sup>2</sup>	N/A	4 x 2.5mm <sup>2</sup>	Outdoor Power Supply	20 (Three Phase)	N/A

 $<sup>^{\</sup>star}$  For lengths 20 – 50M 3 x 4mm<sup>2</sup> should be used

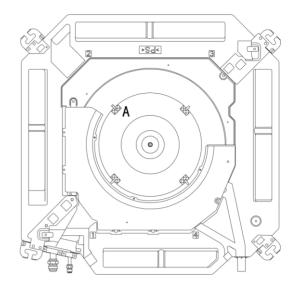
#### **TEST RUN**

#### **CONFIRMATION BEFORE TEST RUN**

After installation of indoor and outdoor units, piping and wiring, please confirm there is no refrigerant leak, loss of power supply line and signal line, and no mistaken polarity.

Note: The compressor will not run in case of incorrect connection of the power supply line.

Note: Before test run, be sure to take out 4 air wheel damper blocks (A) and fixing tape!



#### **TEST RUN**

- 1. Connect the main power supply of unit.
- 2. Press the emergency operation switch (refrigeration or heating) and the air conditioner starts; the operation indication lamp will illuminate; check whether the operation of unit is normal; when the emergency operation switch is pressed again, it will stop the operation.
- 3. Press the "ON/OFF" button on the remote control and confirm whether the indoor unit emits a sound; if heard, the remote control functions and the emergency operation will be canceled; then operate the buttons of remote controller to observe whether the operation modes of unit changes correspondingly.
  - A. Press "mode" key and select "air supply" mode; check whether there is air blowing out from the airconditioner.
  - B. Press "mode" key and select refrigeration mode; check whether there is cool air blowing out of the airconditioner.
  - c. Press "mode" key and select heating mode; check whether there is hot air flowing out of the airconditioner (without this mode for single cold type unit)
  - D. Press "wind speed" mode and select high speed mode; check whether there is strong wind blowingout of the air conditioner.
  - E. Press the "swing" mode, and observe if wind grate is normal swing.

#### **TEST THE DRAINAGE DEVICE**

- 1. After installation of the unit, it is necessary to check the drainage device.
- 2. During test run, it is necessary to correctly drain out and ensure no leak of connector.

After installation and test run, the installation personnel shall introduce the operation method and safety notices to the user according to the operation instructions.

#### TROUBLESHOOTING AND SELF DIAGNOSIS

MALFUNCTION	POSSIBLE CAUSE				
The appliance	Power failure				
does not	Damaged indoor/outdoor unit fan motor				
operate	Faulty compressor thermomagnetic circuit breaker				
	Faulty protective device or fuses				
	Loose connections				
	Self protection in adverse conditions				
	Voltage higher / lower than the voltage range				
	Active TIMER-ON function				
	Damaged electronic control board				
Strange odour	Air filter dirty				
Noise of running	Back flow of liquid in the refrigerant circulation				
water					
A fine mist	This occurs when the air in the room becomes very cold, for example				
comes from	in the COOLING or DEHUMIDIFYING modes.				
the air outlet					
A strange noise	This noise is made by the expansion or contraction of the front panel				
can be heard	due to variations in temperature and does not indicate a problem.				
Insufficient	Inappropriate temperature setting.				
airflow, either	Air inlet or outlet of indoor or outdoor unit has been blocked.				
hot or cold	Air filter is blocked.				
	Fan speed set at minimum.				
	Other sources of heat in the room.				
	No refrigerant.				
The appliance	Remote control is not near enough to indoor unit.				
does not	Battery in Remote controller may have been exhausted				
respond to commands	Obstacles between remote control and signal receiver in indoor unit.				
The display is	Active LED function				
off	Power failure				
Remote cannot	Remove the batteries from the remote and follow the guide for				
select heating	setting up the remote.				
mode.					
Switch off the air conditioner immediately and cut off the power supply in the					
event of:					
Strange noises during operation.					
Faulty electronic control board					
Faulty fuses or switches.					
Spraying water or objects inside the appliance.					
	Overheated cables.				
Very strong smells coming from the appliance.					

#### **SELF DIAGNOSIS FUNCTION**

Table 1: Failure code list of indoor unit

Fault Description	4LED fault indication	Digital display	Wired remote display	
Three-phase power phase sequence fault		E0	E0	
Indoor and outdoor unit communication failure	Timing lights flash	E1	E1	
Temperature sensor (T1) fault	Running lights flash	E2	E2	
Pipe temperature sensor in the evaporator (T2) fault	Running lights flash	E3	E3	
Pipe temperature sensor in the evaporator (T2B) fault	Running lights flash	E4	E4	
Outdoor unit failure	Warning lights flash slowly	E5	E5	
The indoor unit EEPROM fault	Defrost lights flash slowly	E7	E7	
Water over protection	Warning lights flash	EE	EE	
Indoor unit with line controller communication failure		E9	E9	
Note: The flash frequency for each of the above indicator is 2.5Hz, slow flashing frequency is 1Hz				

Table 2: Parameter table for spot inspection of outdoor unit

The digital tube display the indoor unit amount connected and communicated with during standby The digital tube displays the frequency value during operation of compressor; the digital tube displays"dF" during defrosting;

Spot check NO.	Content	Spot check NO.	Content
1	Indoor unit capacity	11	Opening of EXV
2	Indoor unit capacity demand	12	Running frequency of compressor
3	Indoor demand after T4 amendment	13	Primary voltage/4
4	Indoor demand after T2 amendment		
5	5 Indoor room temperature (T1) temperature		
6	Indoor coil middle temperature (T2) temperature		
7 Indoor coil outlet temperature (T2B) temperature			
Outdoor unit condenser outlet (T3) 8 temperature			
9 Outdoor temperature (T4) temperature  Compressor top temperature (T5) temperature (maximum 99°C)			

Table 3: Failure code list of outdoor unit

Display	Error description	Display	Error description
E0	Phase protection	F0	(reserved)
E1	Communication error between outdoor unit and indoor unit	F1	(reserved)
E2	Indoor room temperature (T1) sensor error	F2	(reserved)
E3	Indoor coil middle temperature (T2) sensor error	F3	Outdoor unit current error cannot recover  Display P3 error for 3 times within 60 minutes
E4	Indoor coil outlet temperature (T2B) sensor error	F4	Outdoor temperature (T4) sensor error
E5	Outdoor unit error	F5	(reserved)
E6	Zero speed protection	F6	Outdoor unit condenser outlet (T3) sensor error
E7	EERPOM error	F7	Secondary side current protection
E8	Indoor fan motor speed lose protect ion	F8	Heat T2 temp. protection
E9	Wired controller communication error	F9	Outdoor unit voltage error
EE	Water level alarm error		
EF	(reserved)		

Display	Error description	Display	Error description
P0	(reserved)	НО	Communication error between outdoor unit main
			board and driver board
P1	(reserved)	H1	(reserved)
P2	(reserved)	H2	(reserved)
P3	Primary/secondary overcurrent protection	Н3	(reserved)
P4	Exhaust temperature over-high protection	H4	3 times of P6 error within 30 minutes
P5	Outdoor unit condenser outlet (T3) temperature over-high protection	H5	3 times of P2 error within 30 minutes
P6	Compressor driver error or IPM protection	H6	3 times of P4 error within 100 minutes
P7	(reserved)	H7	(reserved)
P8	(reserved)	H8	(reserved)
P9	Outdoor unit DC fan motor error	H9	2 times of P9 error within 10 minutes

#### **TECHNICAL SPECIFICATION**

	Model	eiQ-CRF	C18K-V4	
Ind	oor Rated voltage and frequency (Ph-V-Hz)	N/A		
Outdoor Rated voltage and frequency (Ph-V-Hz)		1Ph/220-240V~/50Hz		
Indoor Fuse Required		N	/A	
Outdoor Fuse Required		16A		
	Mode	Cooling	Heating	
	Rated capacity (KW)	5.3 (2.0-5.6)	5.9 (2.5-6.0)	
	Power input (W)	1555 (420-2100)	1445 (500-1940)	
	Current input (A)	2.1-10.1	2.5-9.2	
	SEER/SCOP(W/W)	6.1 / A++	4.0 / A+	
	Nominal load (kW)	5.300	4.800	
	Balance point temperature heating (°C)	-	-7	
	Min. outdoor operating temperature (°C)	-15	-15	
	Thermostat-off mode (W)	45	11	
	Standby mode (W)		1	
	Off mode (W)		1	
	Annual consumption (kW)	319	1765	
	Copper Pipe Type length	,	-	
	Liquid side / Gas side (mm/inch)	Ф6.35/Ф12.7		
	Max. refrigerant pipe length	15		
Max. elevation		8	3	
Interconnecting Cable		4x2.5	5mm²	
Moisture Removal (L/h)		2.	47	
	Air Flow (m³/h)	650		
	Body Dimensions (L*W*H) (mm)	565x26	67x565	
	Panel Dimensions (L*W*H) (mm)	650x29	9.8x650	
_	Body Packaging (L*W*H (mm)	745x375x675		
Indoor	Panel Packaging (L*W*H (mm)	750x95x750		
	Body Net / Gross weight (Kg)	16.5/21.5		
	Panel Net / Gross weight (Kg)	2.7/4.0		
	Noise – Sound pressure level (dB/A)	36-43		
	Noise – Sound power level (dB/A)	46	-55	
	Dimension (L*W*H) (mm)	925x36	66x700	
	Packaging (L*W*H) (mm)	990x410x770		
	Net / Gross Weight (Kg)	45/48		
ō	Noise – Sound pressure level (dB/A)	52		
Outdoor	Noise – Sound power level (dB/A)	63		
õ	Refrigerant type/weight	R32 / 1300g		
	Defrost mode	Automatic	defrosting	
	Applicable climate types	Cooling (-15°C – 50°C)		
		Heating(-15	5°C – 30°C)	

Due to continuous product development process specification may change.

These units contain a gas governed by F-Gas regulations. The gas must be handled by qualified F-Gas engineers.

Model		eiQ-SSRFC24K-V4		eiQ-SSRFC36K-V4		
Indoor Rated voltage and frequency (Ph-V-Hz)		N/A		N/A		
Outdoor Rated voltage and frequency (Ph-V-Hz)		1Ph/220-240V~/50Hz		1Ph/220-240V~/50Hz		
Indoor Fuse Required		N	N/A		N/A	
	Outdoor Fuse Required	1	6A	4	·0A	
	Mode	Cooling	Heating	Cooling	Heating	
	Rated capacity (KW)	7.0 (3.5-8.0)	7.7(4.5-8.5)	10.5 (6.6-12.8)	11.5(7.35-13.2)	
	Power input (W)	2140 (600-3000)	1920 (1500-2600)	3150 (740-3900)	3375 (1100-4000)	
	Current input (A)	2.5-13	5.5-11	2.8-20	4.2-20.4	
	SEER/SCOP(W/W)	6.1 / A++	4.0 / A+	6.1 / A++	4.0 / A+	
	Nominal load (kW)	7.000	6.000	10.500	7.500	
	Balance point temperature heating (°C)	-	-7	-	-7	
	Min. outdoor operating temperature (°C)	-15	-15	-15	-15	
	Thermostat-off mode (W)	45	45	45	45	
	Standby mode (W)		1		1	
	Off mode (W)		1		1	
	Annual consumption (kW)	423	2512	610	3080	
	Copper Pipe Type length		-		-	
	Liquid side / Gas side (mm)	Ф9.52/Ф15.88		Ф9.52/Ф15.88		
	Max. refrigerant pipe length	20		65		
	Max. elevation	10		30		
	Interconnecting Cable	4 x 2.5mm <sup>2</sup>		4 x 2	.5mm²	
	Moisture Removal (L/h)	2	.59	3	.51	
	Air Flow (m <sup>3</sup> /h)	1100		1	800	
	Body Dimensions (L*W*H) (mm)	840x230x840		840x285x840		
	Panel Dimensions (L*W*H) (mm)	950x50x950		950x50x50		
ř	Body Packaging (L*W*H (mm)	920x2	65x920	920x310x920		
Indoor	Panel Packaging (L*W*H (mm)	1030x100x1030		1030>	(100x1030	
=	Body Net / Gross weight (Kg)	25/30		30.5/36		
	Panel Net / Gross weight (Kg)	6.5	5/9.5	6.5/9.5		
	Noise – Sound pressure level (dB/A)	43-49		43	3-48	
	Noise – Sound power level (dB/A)	56-63		50	3-61	
	Dimension (L*W*H) (mm)	958x843x392		1030X	788X432	
	Packaging (L*W*H) (mm)	1025x960x430		1120X	900X485	
	Net / Gross Weight (Kg)	52/62		68	3/74	
ŏ	Noise – Sound pressure level (dB/A)	54		-	55	
Outdoor	Noise – Sound power level (dB/A)	67			68	
ŏ	Refrigerant type/weight	R32 / 1700g		R32 /	<sup>′</sup> 2150g	
	Defrost mode	Automatic defrosting		Automatio	defrosting	
	Applicable climate types	Cooling (-15°C – 50°C)		Cooling (-15°C – 50°C) Cooling (-15°C – 50°C		
		Heating(-15°C – 30°C)		Heating(-15°C – 30°C)		

Due to continuous product development process specification may change.

These units contain a gas governed by F-Gas regulations. The gas must be handled by qualified F-Gas engineers.

Model		eiQ-SSRFC48K-V4		eiQ-SSRFC60K-V4			
Indoor Rated voltage and frequency (Ph-V-Hz)		N/A		N/A			
Outdoor Rated voltage and frequency (Ph-V-Hz)		380~415/3/50		380~415/3/50			
Indoor Fuse Required		N	/A	N/A			
Outdoor Fuse Required		20	0A	20A			
	Mode	Cooling	Heating	Cooling	Heating		
	Rated capacity (KW)	14.0 (7.0-15.5)	15.2 (8.0-16.0)	16.0(7.5-17.0)	16.8 (8.5-17.5)		
	Power input (W)	4950 (1100-5800)	4920 (1200-6000)	5900 (1400-6300)	5460 (1500-6500)		
	Current input (A)	2.8-14.6	3.0-15.0	3.5-15.8	3.7-16.3		
	SEER/SCOP(W/W)	6.1 / A++	4.0 / A+	6.1 / A++	4.0 / A+		
	Nominal load (kW)	14.000	11.500	16.000	12.000		
	Balance point temperature heating (°C)	-	-7	-	-7		
	Min. outdoor operating temperature (°C)	-15	-15	-15	-15		
	Thermostat-off mode (W)	101	23.9	128	23.6		
	Standby mode (W)	;	3	;	3		
	Off mode (W)	;	3	3			
	Annual consumption (kW)	795	3723	911	4046		
	Copper Pipe Type length		-		_		
	Liquid side / Gas side (mm/inch)	Ф9.52/Ф15.88		Ф9.52/Ф15.88			
	Max. refrigerant pipe length	65		65			
Max. elevation		30		30			
Interconnecting Cable		4 x 2.	5mm²	4 x 2.	5mm <sup>2</sup>		
Moisture Removal (L/h)		5.	08	7.	96		
Air Flow (m³/h)		19	900	20	00		
	Body Dimensions (L*W*H) (mm)	840x285x840		840x2	35x840		
	Panel Dimensions (L*W*H) (mm)			950x50x950			
	Body Packaging (L*W*H (mm)	920x3 <sup>-</sup>	10x920	920x3	10x920		
door	Panel Packaging (L*W*H (mm) 1030x100x1030		00x1030	1030x100x1030			
Ind	Body Net / Gross weight (Kg)	29/34		29/34			
	Panel Net / Gross weight (Kg)	6.5/9.5		6.5/9.5			
	Noise – Sound pressure level (dB/A)	45-52		45	-52		
	Noise – Sound power level (dB/A)	56-63		56-63			
	Dimension (L*W*H) (mm)	1014x1430x450		1014x1	430x450		
ļ	Packaging (L*W*H) (mm)	1095x485x1545		1095x485x1545			
Outdoor	Net / Gross Weight (Kg)	109/123.6		112/126.6			
	Noise – Sound pressure level (dB/A)	58		5	8		
	Noise – Sound power level (dB/A)	70		7	0		
on	Refrigerant type/weight	R32 / 3800g		Refrigerant type/weight R32 / 3800g		R32 / 3800g	
Ī	Defrost mode	Automatic defrosting		Automatic defrosting			
Ī	Applicable climate types	Cooling (-15°C – 50°C)		Cooling (-15°C – 50°C)			
		Heating(-15°C – 30°C)		Heating(-15°C – 30°C)			

Due to continuous product development process specification may change.

These units contain a gas governed by F-Gas regulations. The gas must be handled by qualified F-Gas engineers.

#### **APPENDIX**



Disposal: Do not dispose this product as unsorted municipal waste. Collection of such waste must be handled separately as special treatment is necessary. Recycling facilities are now available for all customers at which you can deposit your old electrical products. Customers will be able to take any old electrical equipment to participating sites run by their local councils. Please remember that this equipment will be further handled during the recycling process, so please be considerate when depositing your equipment. Please contact the local council for details of your local household waste recycling centres.

#### WARRANTY INFORMATION

electriQ guarantee provides cover against material or manufacturing faults. This means that if your air conditioner develops a fault during the guarantee period, we will arrange for it to be repaired or replaced.

Faults arising from a faulty installation are specifically excluded.

The system must be serviced annually by qualified personnel.

This unit must be operated under conditions as recommended in this user manual, at voltages indicated on the unit. Any attempts made to service or modify the unit by unqualified person, will render this WARRANTY VOID.

This warranty is in addition to, and does not affect, your statutory rights.

Our warranty is RTB warranty and cover parts and labour only.

We recommend that you note the details of your purchase below and retain your original proof of purchase receipt with this manual. Keep these documents safe in the event of a warranty claim.

Purchase Date:	
Retailer name:	
Model number:	
Serial number:	
Installation Date:	
Installer name:	
Service Date:	
Engineer/ Company name:	

#### electriQ UK SUPPORT

Please, for your own convenience, check the troubleshooting guide before calling the service line.

If the unit still fails to operate call: 0871 620 1057 or complete the online form Office hours: 9AM - 5PM Monday to Friday

#### www.electriQ.co.uk/support

Unit J6, Lowfields Business Park Lowfields Way, Elland West Yorkshire, HX5 9DA