

Models

Monozone/Multizone  
(NH5/QH5)

Summit  
(YH5)

Bigflow  
(GH4/G4)

Air Exchanger  
(JX5)

ROOM AIR  
CONDITIONERS



# room air conditioners



**HITACHI**  
Inspire the Next



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Air conditioning from Hitachi can justifiably be described as the art of exploiting the latest ideas and developments in technology to create a range of innovative products which provide a more comfortable and more productive environment in which people can happily live and work. It is also an art executed with a responsible concern for protecting the environment. Ecological thinking begins at the very first stages of new product design and continues throughout production, installation procedures, equipment and operation.

Specifiers and users alike can always be assured that performance and costs are not the only parameters by which Hitachi products can be judged.

To achieve success with such objectives on a global scale requires not only enormous resources but also a commitment to the future. As one of the largest companies in the world, Hitachi is well positioned to undertake this commitment with confidence that comes from successfully responding to the changing needs of people for over 90 years.

The majority of our room air conditioning products are developed at our Tochigi Works in Japan. This is the main focus not only for production but also for research and development with respect to all our room air conditioning products. To assist in production and distribution worldwide we have seven affiliated production companies for room air conditioners and compressors.

Hitachi's advanced air conditioning products are specified all over the world, wherever there is a requirement for ultimate performance and cost effective, long term reliability. A wide range of units coupled with a choice of advanced control systems mean Hitachi can provide solutions to meet every possible air conditioning application or specification. Authorised distributors all over the world contribute their own specialised technical support and practical assistance to provide individual system designs, commissioning and after sales service.

Hitachi Authorised Distributors are committed to providing an unrivalled support from a combination of experienced engineers, local product and spare parts stock,



## Company profile

In Japanese, Hitachi means sunrise – we are the forefront of research and development turning new ideas and innovations into new products. Of its \$81.4 billion sales worldwide in 2003, close to 5.2% was invested into research and development programs. This vast amount of money has given Hitachi the opportunity to conceive many 'world firsts' – examples of which include the technologically advanced and acclaimed scroll and semi-hermetic screw compressors. These have been incorporated in Hitachi's air conditioning systems and water chillers which have revolutionised air conditioning worldwide.

supported in turn by on-going technical support from Hitachi.

From the initial product concept at Hitachi's research and development facility in Japan, product development is dedicated to providing the products the customer requires. Product design and development is continuous with priority being given to the use of ecologically friendly refrigerant. To satisfy your cooling and heating requirements and to ensure the optimum indoor environment, consider Hitachi the first and last word in air conditioning.





**Tochigi Works and its overseas affiliates** have acquired International Standard Quality Management System ISO9001 and ISO14001 authorisation. The Tochigi Works performs thorough product quality control using various environmental tests. Hitachi Room Air Conditioning Indoor and Outdoor units are manufactured according to this ISO certification system.



**Hitachi products all carry the necessary 'CE' declaration markings,** and also feature in the extensive Eurovent Listing programme. Listing in the Eurovent directory helps ensure peace of mind for the installer and the end user, as it certifies the important operating parameters and performance of the units.

# Quality control



## Product range overview

Hitachi's new range of Room Air Conditioning systems has developed significantly in recent years following a great deal of investment in research and development and testing facilities at various Hitachi factories and laboratories, around the world.

Hitachi has continuously developed sophisticated energy saving air conditioning systems that reduce CO<sub>2</sub> emissions and help to protect the global environment.

The latest Room Air Conditioning offering from Hitachi is the Air Exchanger series. It is equipped with the additional function of a two way ventilation system and high air quality filters.

The unique Hitachi Air Exchanger is a major step forward in Hitachi's continued efforts to help improve Indoor air quality. Improved indoor air quality helps to promote well being, while also ensuring comfort.

The Hitachi range of Room Air Conditioners feature a vast array of significant features all designed with the user in mind!

- High efficiency DC Inverter PAM control
- Eco friendly R410a refrigerant
- High power and performance for greater energy efficiency
- Low ambient working range -10°C for cooling, -15°C for heating
- Remarkably low sound levels
- Strong heating capacity under low ambient temperature conditions
- Zone by zone heating or cooling for up to four areas, and wide selection of indoor unit type and capacities
- Highest air quality
- Easy installation and servicing
- An elegant design

## All DC Inverter PAM Monozone/Multizone Indoor Units

	Capacity Range [Kw]				
	1.8	2.5	3.5	5.0	6.0
Wall	●	●	●	●	●
Floor		●	●	●	
4-way Cassette		●	●	●	
In-the-Ceiling		●	●		

## Outdoor Units

	Capacity Range [Kw]							
	2.5	3.5	5.0	6.0	7.5	8.8	11.0	12.0
Monozone*	●	●	●	●				
Multizone**				●	●	●	●	●

\* Nominal cooling capacities

\*\* Maximum indoor combination nominal cooling capacities

## All DC Inverter PAM Mono Split

	Capacity Range [Kw]						
	2.0	2.5	3.5	5.0	6.0	7.0	8.0
Summit	●	●	●	●	●	●	●
Air Exchanger		●	●				

## Non Inverter Mono Split

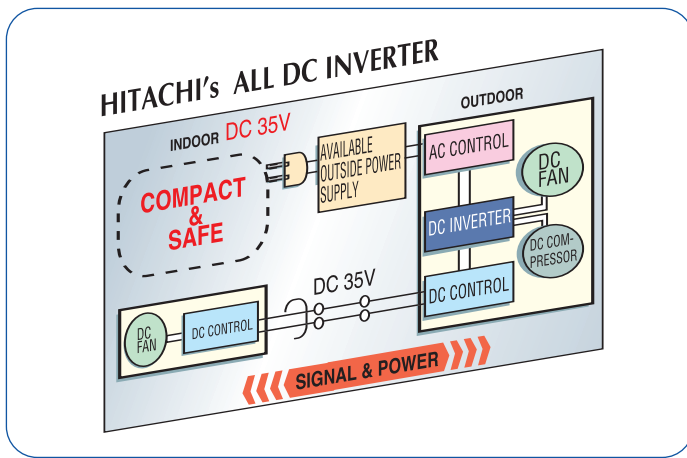
	Capacity Range [Kw]				
	2.0	2.9	3.5	5.0	6.5
Bigflow – Heat Pump	●	●	●	●	●
Bigflow – Cooling Only	●	●	●	●	●



## All DC Inverter

As you would expect from an Industry leader such as Hitachi, we have been at the forefront of technological development and advancement. As the pioneer of 'DC' Inverter driven Room

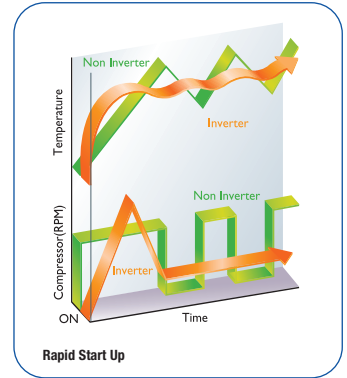
Air Conditioners, our units boast the significant advantage of all DC Inverter driven compressors and fans. Enhanced inverter performance and system performance are achieved by the addition of a 'DC' drive.



## Advantages include:

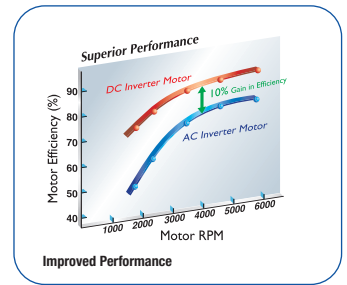
### Rapid start up

The variable speed compressor (inverter) enables the system to rapidly reach the desired room temperature setting. Once the desired room temperature has been achieved the compressor rotation speed is reduced, saving up to 30% in energy usage (when compared to conventional systems) without compromising comfort levels.



### Improved performance

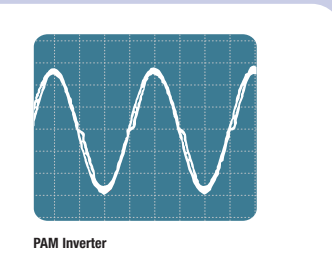
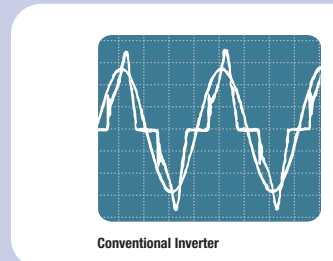
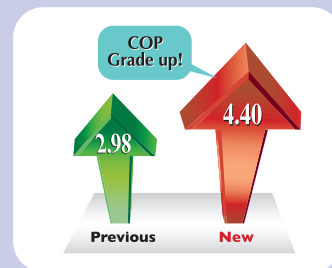
The inclusion of a DC driven motor delivers an enhanced performance over standard AC motor driven systems. This enhanced performance can be as much as 10%!



# Features and benefits

## PAM – Minimised loss of performance

Hitachi's PAM (Power Active Module) control system mirrors the current pulse waveform to avoid distortion and therefore achieve almost 100% power factor to enhance power efficiency. This cutting edge device is employed in all Hitachi Mono/Multizone products for your comfort and energy saving for our environment. It ensures the efficient use of input power and minimises loss to less than 1%. The PAM range boasts an industry leading COP of more than 4.0.



## High Energy Efficiency

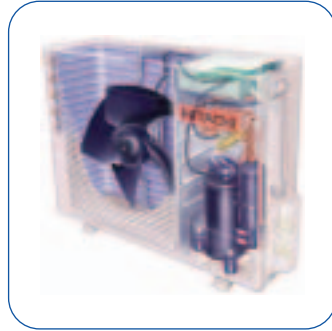
Hitachi conforms to the 2002/31/EC Directive – 92/75/EEC “Energy labelling Directive (ELD)”, which is applicable from June 2004 on all air conditioning products up to 12Kw cooling capacity. The DC inverter PAM technology helps us to achieve the ‘A’ class, the highest level of energy efficiency which is clearly indicated on the standard labelling system.

# Compressor Technology

## Digital DC Scroll Compressor

The motor uses digital control to maximise PAM control performance.

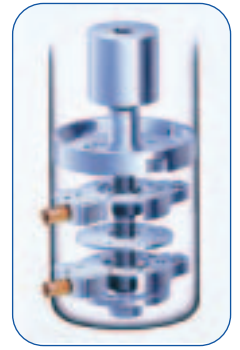
- Loss during high-speed revolution is reduced thanks to digital control of the motor.
- Shaft runout during high-speed revolution is lessened by three balancers mounted on the crank shaft.
- Efficient operation with drastically reduced refrigerant leakage is ensured by the automatic compression system, in which the tip of the slewing scroll is kept in absolute contact with the fixed scroll, in addition to special processing of the scroll surface.



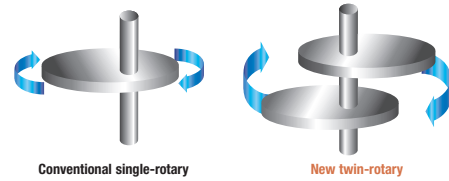
## DC Twin Rotary Compressor

Today all Monozone and two Multizone room air conditioning units have Hitachi's new twin rotary compressor which has even less vibration and even higher performance efficiency than conventional rotary compressors.

- Two rotating cylinders ensure well balanced rotation unlike the conventional single-rotary type, thus greatly reducing any vibration noise.
- The compressor's operation is magnificently improved by the independent operation of the cylinders leading to greater efficiency and lower vibration.

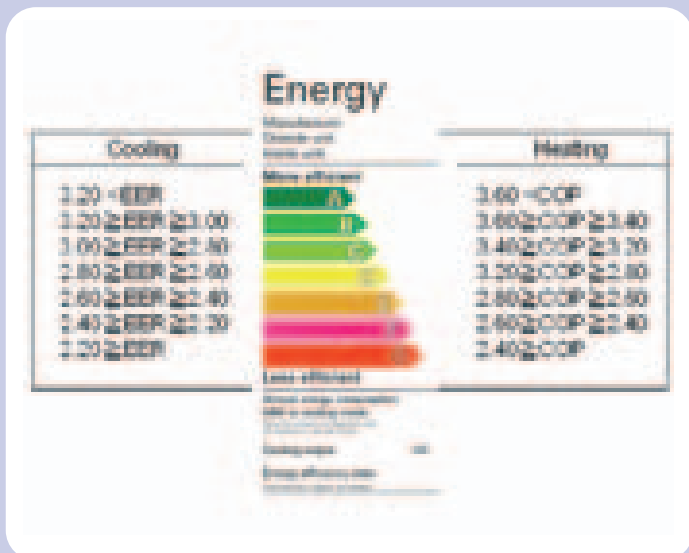


### Drawing of cylinder balance



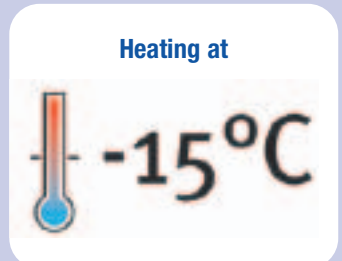
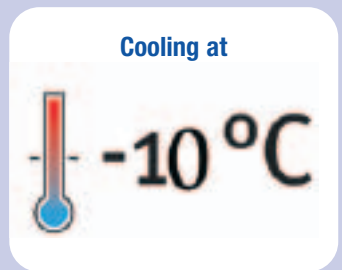
### Comparison of vibration

Single	Twin
1	1/5



## High performance cooling at -10°C and heating at -15°C

The cooling and heating performance is even more impressive than previously. The units have been designed for cooling operation under low temperatures down to -10°C. At outdoor temperatures as low as -15°C, the PAM controlled range of inverter split systems continue to provide high capacity heating performance.





### R410a Refrigerant

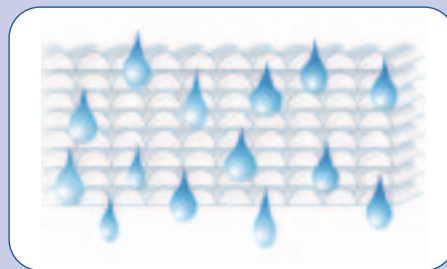
Hitachi is using the new R410a refrigerant in all of its room air conditioning products to ensure its continual environmentally friendly approach as well as the on going development of techniques for saving energy and reducing power consumption.

### Air Quality

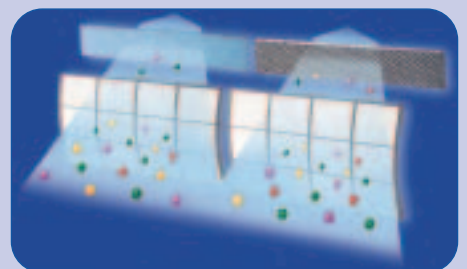
Either the SPX-CFH5 or SPX-CFH11, washable carbon and anti-bacteria air purifying filters are included in all of Hitachi's room air conditioning products. This ensures that the micro dust, pollen particles and odours that can collect on filters can be easily removed. The filters can be washed and reused up to 20 times.



Reusable after washing.



Breathable structure. Micro level dust is absorbed by static electricity.

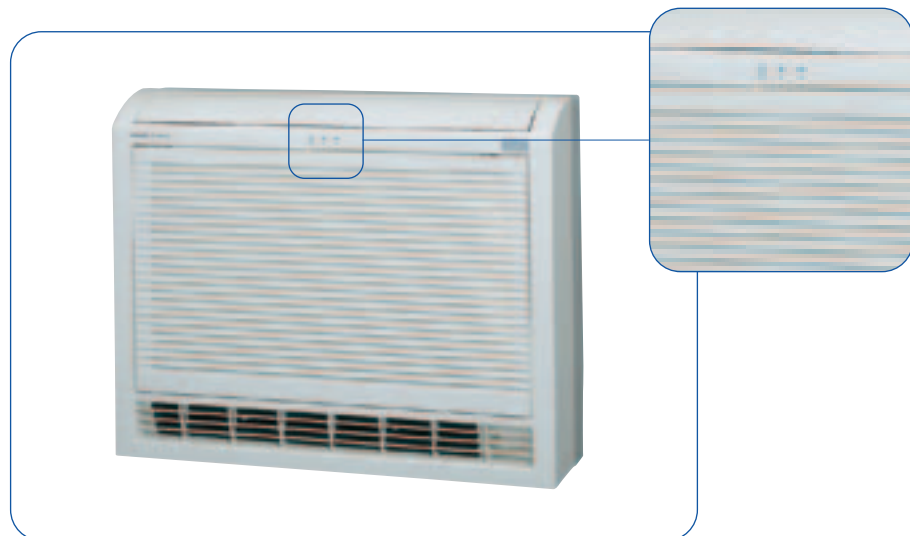


SPX-CH5, SPX-CH11

# Features and benefits

### Self Diagnosis System for Easy Servicing

All air conditioning units are made with easy servicing in mind. All components can be easily reached and self diagnosis is made easy. Errors are easily identified by the blinking patterns made by lights on the LED outside the indoor and inside the outdoor units.





## Nano Titanium

### Nano-Titanium Filter (Air Exchanger range only)

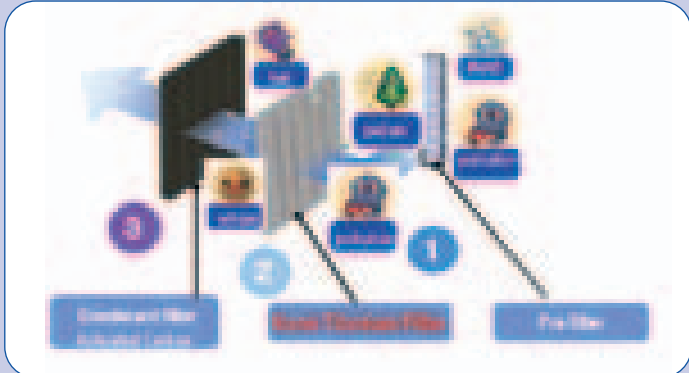
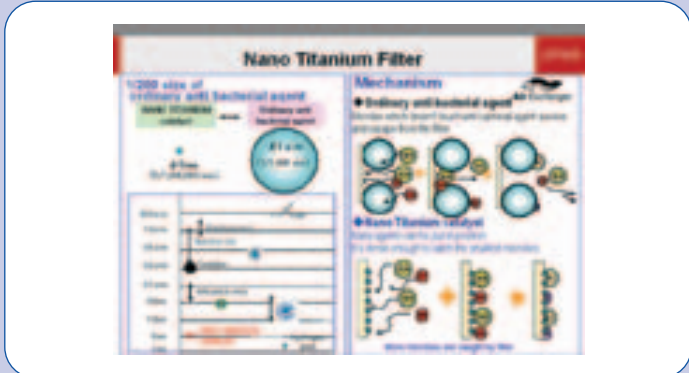
In our new Air Exchanger models we have introduced the Hitachi state of the art Nano-Titanium Catalyst which dramatically improves the functions of deodourisation, bacteria elimination and anti-bacterial measures. Titanium Oxide has been used as a photocatalyst for many years but Hitachi have now enhanced it by reducing its size to a nanometer – over 1000 times smaller than ordinary bacteria agent.

This ultrafine catalyst can therefore catch smaller microbes or bacteria which may escape from other filters leading to higher air quality circulating around the room.

The comparison table easily shows the size of the Nano Titanium Catalyst in relation to other ordinary anti bacterial agents and also details the size of some common bacteria in relation to the size of the filter and showing what does get through.

The Nano-Titanium does not deteriorate or run out as particles and dead fungi do not accumulate on the surface, so it can be used semi-permanently.

Both the SPX-CFH15 and SPX-NFH1 filters are included.



## Automatic Operational Control

### Auto restart

If the auto start mode is selected at the ON/OFF switch, then the unit automatically resumes operation in the mode that was in use before it was switched off. This saves time for the user on start up and setting selection.

### Auto changeover

The built-in microcomputer continuously selects the best operating mode to achieve the required heating and cooling temperature. The sensor checks the operating mode periodically to provide maximum comfort for the user. (Applicable to all DC Inverter models.)

### Easy to use remote control

All units come with a standard easy to use remote control, equipped with 24hr timer. All commands are shown on the liquid crystal display while convenient, frequently-used functions (sleep mode timer, fan speed and louver control) can be operated with one touch buttons.





# Monozone/Multizone



## Extensive range and full indoor/outdoor compatibility

The Hitachi Multizone range was the worlds first all DC Inverter Multisplit system with zone by zone cooling or heating for up to four rooms.

Hitachi DC scroll and DC twin-rotary compressor, together with award-winning DC inverter PAM technology, aid the achievement of a system power factor of almost 100%, thus providing unparalleled performance and efficiency. The all DC Inverter system ensures extremely sensitive and accurate temperature control through fuzzy logic and offers remarkably low sound levels.

The wide range of units have been designed for cooling operation under low temperatures, down to -10°C. This feature enables cooling to be obtained even in winter on buildings with high internal heat gains due to lighting, people and machines, particularly in areas such as shops and lecture rooms. The heating operation under low temperature, down to -15°C can also be performed.

The recent integration of Multizone and Monozone employing R410A refrigerant provides a comprehensive selection of DC inverter PAM mono and multi split systems, maintaining full compatibility of indoor unit throughout the range.

Monozone/Multizone compatible indoor unit range caters for all requirements offering wall mounted, floor standing, 60cm x 60cm cassettes, and in the ceiling duct units, designed to offer elegance and comfort to any application.

## Comprehensive range/long pipe length and easy installation

You can choose and connect freely from different types of indoor and outdoor units depending on the number of rooms, width and shape of the room.

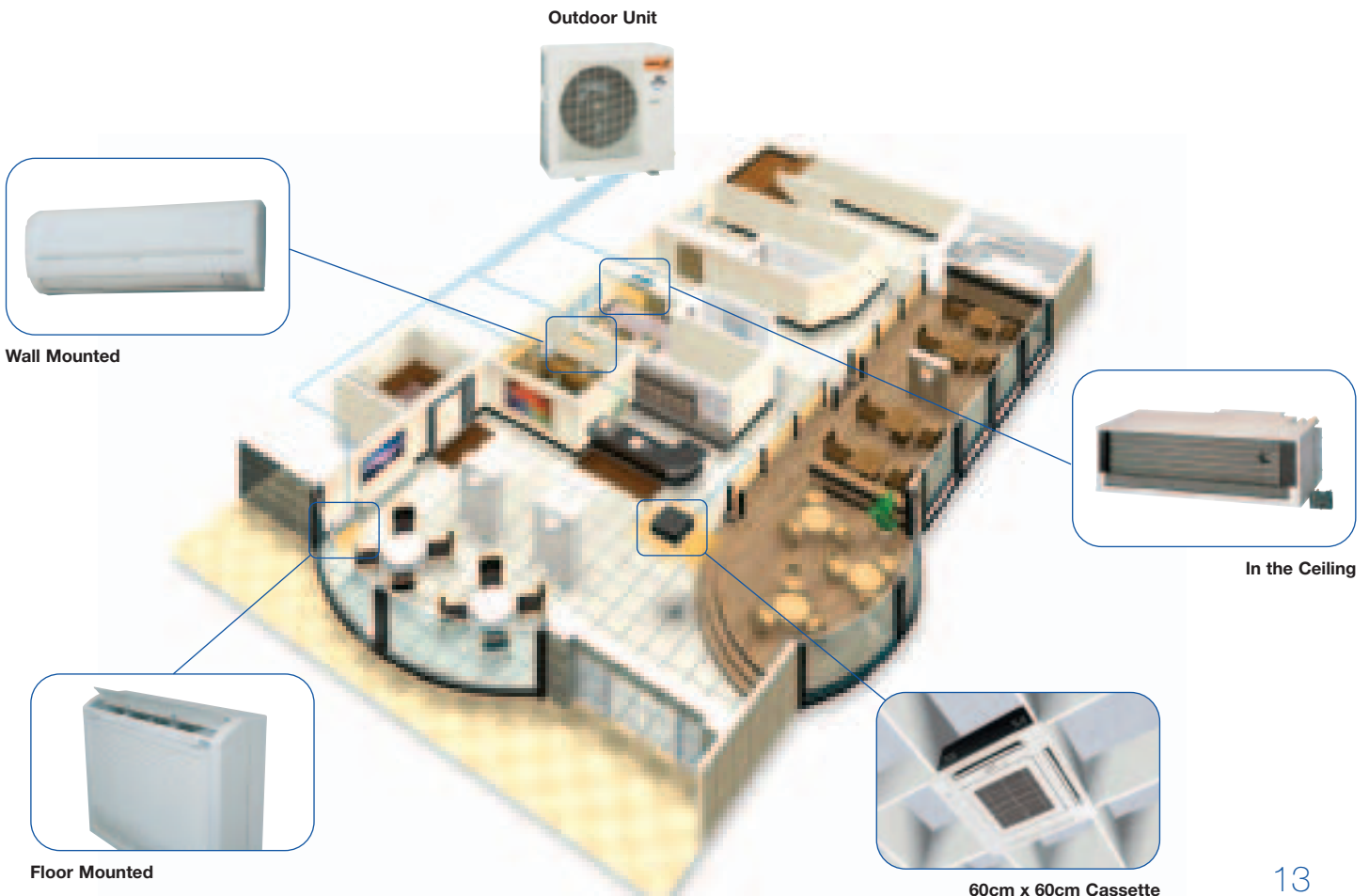
The single Monozone outdoor units work on a 20m to 30m maximum length of piping, and are made in four different capacities.

Multizone outdoor units can have a maximum chargeless piping length up to 70m when one outdoor unit is used with four indoor units in various locations. A maximum combination of indoor units can provide a wide selection of 6.5kW to 12.0kW.

## Main Key Benefits

- DC Inverter PAM control
- Wide selection of indoor unit types and capacities
- Compatibility between product ranges of outdoor and indoor units
- Highest COP and low noise
- Cooling available under -10°C ambient temperature\*
- Heating available under -15°C ambient temperature
- Auto restart by previous mode and Auto changeover\*\*
- Washable carbon and anti-bacteria air purifying filter
- 24hr remote control timer
- R410a refrigerant

Notes: \* Except RAM 80QH5 \*\* Auto changeover for Monozone only



## RAK Technical Description



### Powerful

A bigger, compact flap delivers air quickly to every corner of the room and the powerful, sweeping air flow eliminates dead zones and improves the cooling and heating effect.

### Wide and Big Air Flap



### Silent

The trapezoidal blades cut the air diagonally to minimise air resistance and the conical blade fan ensures a high airflow. With this diagonal air blow, less friction is caused, which reduces noise and improves efficiency. The fan diameter has been increased from the conventional 90mm to 100mm.

### Conventional blade fan



### New Conical blade fan



With diagonal air blow, less friction is caused, which reduces noise and improves efficiency.

### Efficient

The Lambda- shaped heat exchanger's advanced design has a wide suction area and graduation – design grill which both increase the efficiency and performance of the heat exchanger. The wide suction area increases the air intake which enables the unit to adjust the room temperature quickly.

### Clean

A washable carbon and anti-bacteria air purifying filter ensures that the micro dust, pollen particles and odours that can collect on filters can be easily removed. The filters can be washed and reused up to 20 times.

## Wall mounted



## General Data

Model		RAK-18NH5	RAK-25NH5	RAK-35NH5	RAK-50NH5	RAK-65NH5
<b>Power Supply</b>		DC 35V	DC 35V	DC 35V	DC 35V	DC 35V
<b>Sound Pressure Level (Overall Scale)</b>						
Cooling	dBA	35/30/26/20	38/32/26/20	41/35/29/25	47/39/31/27	47/42/33/28
Heating	dBA	36/33/27/23	39/33/27/23	41/35/30/26	47/39/31/27	47/42/34/33
<b>Outer Dimensions (Net/(Carton))</b>						
Height	mm	280(254)	280(254)	280(254)	280(254)	295(271)
Width	mm	780(826)	780(826)	780(826)	780(826)	1030(1100)
Depth	mm	210(325)	210(325)	210(325)	210(325)	191(368)
Weight	Kg	9(11)	9.5(11)	9.5(11)	9.5(11)	11(13)
<b>Refrigerant</b>		R410A	R410A	R410A	R410A	R410A
Flow Control		–	–	–	–	–
<b>Indoor Fan</b>						
Air Flow Rate Cooling	m³/min	7.3/6.7/5.8	8.5/7.0/6.0	10.1/8.0/6.5	13.5/10.0/6.8	13.5/12.5/11.3
Air Flow Rate Heating	m³/min	8.0/7.0/5.8	9.5/8.0/7.0	10.8/8.5/7.5	13.5/10.0/6.8	13.5/12.5/11.3
<b>Refrigerant Piping</b>						
Liquid Line	mm (in)	6.35(1/4)	6.35(1/4)	6.35(1/4)	6.35(1/4)	6.35(1/4)
Gas Line	mm (in)	9.52(3/8)	9.52(3/8)	9.52(3/8)	12.7(1/2)	12.7(1/2)
<b>Interconnection wires</b>	pcs	3	3	3	3	3
<b>Auto Restart by Previous Mode</b>		Yes	Yes	Yes	Yes	Yes
<b>LED Self Diagnosis</b>		Yes	Yes	Yes	Yes	Yes
<b>Air Purifying Filter Type</b>		SPX-CFH11	SPX-CFH11	SPX-CFH11	SPX-CFH11	SPX-CFH5
<b>Anti-bacterial Tangential Fan</b>		Yes	Yes	Yes	Yes	Yes
<b>Remote Control Timer</b>	Hr	24	24	24	24	24

MULTIZONE combination. For capacity information please refer to Combination Table

### NOTES:

#### Cooling Operation Conditions

Indoor Air Inlet Temperature: 27 °C DB  
19 °C WB  
Outdoor Air Inlet Temperature: 35 °C DB

#### Heating Capacity Conditions

Indoor Air Inlet Temperature: 20 °C DB  
Outdoor Air Inlet Temperature: 7 °C DB  
6 °C WB

**Piping Length:** 7.5 meters

**Piping Lift:** 0 meters

#### Sound Pressure Level Measurement Distance:

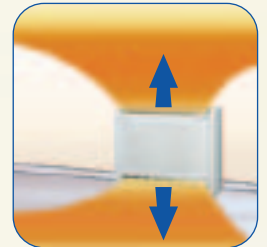
1m from discharge grille  
0.8m beneath the unit's height centre

## RAF Technical Description

### Comfortable heating

The air flow from the upper and lower outlets enables the whole room to be heated evenly, from the floor to the ceiling.

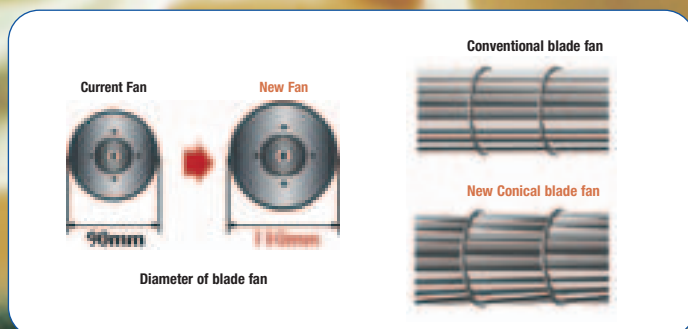
Large and gentle air flow is generated by the larger upper blades, achieving efficient air conditioning.



# Floor mounted

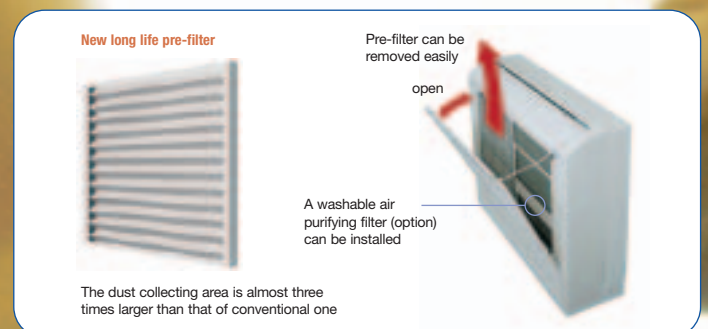
### High performance

The larger conical blade fan rotates the air flow slowly, thus achieving high efficiency and low noise.



### Easy cleaning

The waved shape of the pre-filter provides a dust collecting area which is almost three times larger than that of a conventional one. It can easily be removed for washing or cleaning by a vacuum cleaner.



## General Data

Model		RAF-25NH5	RAF-35NH5	RAF-50NH5
<b>Power Supply</b>		DC 35V	DC 35V	DC 35V
<b>Sound Pressure Level (Overall Scale)</b>				
Cooling	dBA	35/31/26/23	40/35/28/24	44/37/28/24
Heating	dBA	35/31/26/25	41/35/31/26	44/39/34/31
<b>Outer Dimensions (Net/(Carton))</b>				
Height	mm	600(656)	600(656)	600(656)
Width	mm	750(797)	750(797)	750(797)
Depth	mm	215(278)	215(278)	215(278)
Weight	Kg	15(17)	15(17)	15(17)
<b>Refrigerant</b>		R410A	R410A	R410A
Flow Control		–	–	–
<b>Indoor Fan</b>				
Air Flow Rate Cooling	m³/min	7.2/5.0/4.5	9.5/5.5/5.0	10.3/8.5/6.0
Air Flow Rate Heating	m³/min	8.7/7.5/6.2	10.8/8.5/7.2	12.3/10.0/7.5
<b>Refrigerant Piping</b>				
Liquid Line	mm (in)	6.35 (1/4)	6.35 (1/4)	6.35(1/4)
Gas Line	mm (in)	9.52 (3/8)	9.52 (3/8)	12.7(1/2)
<b>Interconnection wires</b>	pcs	3	3	3
<b>Auto Restart by Previous Mode</b>		Yes	Yes	Yes
<b>LED Self Diagnosis</b>		Yes	Yes	Yes
<b>Air Purifying Filter Type</b>		(SPX-CFH5)*	(SPX-CFH5)*	(SPX-CFH5)*
<b>Anti-bacterial Tangential Fan</b>		–	–	–
<b>Remote Control Timer</b>	Hr	24	24	24

MULTIZONE combination. For capacity information please refer to Combination Table \*Option. Not included

### NOTES:

#### Cooling Operation Conditions

Indoor Air Inlet Temperature: 27 °C DB  
19 °C WB  
Outdoor Air Inlet Temperature: 35 °C DB

#### Heating Operation Conditions

Indoor Air Inlet Temperature: 20 °C DB  
Outdoor Air Inlet Temperature: 7 °C DB  
6 °C WB

**Piping Length:** 7.5 meters

**Piping Lift:** 0 meters

#### Sound Pressure Level Measurement Distance:

1m from discharge grille  
Half of unit height from floor level

## RAI Technical Description

### Fits into 60cm x 60cm ceiling module

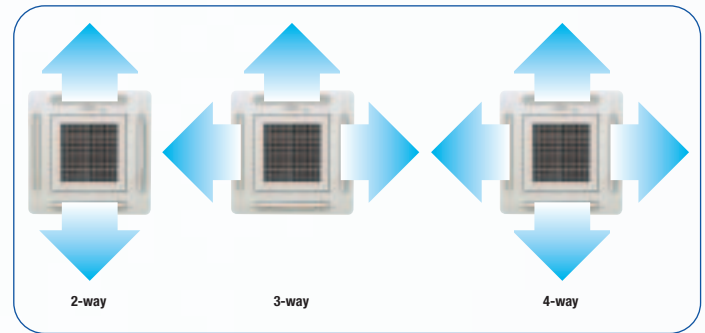
With its compact design the 60cm x 60cm ceiling unit neatly fits inside a standard ceiling module which minimises the installation work.

### Silent

The noise level is just 25dB (sleep mode) thanks to the 3D – twisted wing design of the compact turbo-fan.

### Flexible air flow system

The user can select between 2-way, 3-way or 4 way operation of auto swing louvers.

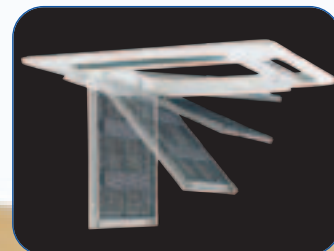


# 60cm x 60cm cassette



### Built in drain pump

This ductable unit is equipped with an internal drain pump to remove accumulated condensation water from the drain pan even while it is operating. A float switch monitors the water level and automatically activates the pump as necessary.



### One-touch panel

The panel can be swung open up to 90° with just one push so that the filter can be removed for cleaning.

## General Data

Model		RAI-25NH5	RAI-35NH5	RAI-50NH5	RAI-ECPM
<b>Power Supply</b>		DC 35V	DC 35V	DC 35V	DC 35V
<b>Sound Pressure Level (Overall Scale)</b>					
Cooling	dBA	35/32/29/25	39/34/29/26	43/35/32/29	—
Heating	dBA	36/33/30/27	40/36/32/29	43/36/32/30	—
<b>Outer Dimensions (Net/(Carton))</b>					
Height	mm	285(395)	285(395)	285(395)	650(710)
Width	mm	580(760)	580(760)	580(760)	650(710)
Depth	mm	580(706)	580(706)	580(706)	32(124)
Weight	Kg	20(25)	20(25)	20(25)	4(5)
<b>Refrigerant</b>		R410A	R410A	R410A	—
Flow Control		—	—	—	—
<b>Indoor Fan</b>					
Air Flow Rate Cooling	m³/min	8.5/7.0/5.8	10.8/8.0/5.8	12.0/8.0/5.8	—
Air Flow Rate Heating	m³/min	8.5/7.0/5.8	10.8/8.0/5.8	12.0/8.0/5.8	—
<b>Refrigerant Piping</b>					
Liquid Line	mm (in)	6.35 (1/4)	6.35 (1/4)	6.35(1/4)	—
Gas Line	mm (in)	9.52 (3/8)	9.52 (3/8)	12.7(1/2)	—
<b>Interconnection wires</b>	pcs	3	3	3	3
<b>Auto Restart by Previous Mode</b>		Yes	Yes	Yes	Yes
<b>LED Self Diagnosis</b>		Yes	Yes	Yes	Yes
<b>Air Purifying Filter Type</b>		—	—	—	(SPX-CFH5)*
<b>Anti-bacterial Tangential Fan</b>		—	—	—	—
<b>Remote Control Timer</b>	Hr	24	24	24	—

MULTIZONE combination. For capacity information please refer to Combination Table \*Option. Not included

### NOTES:

#### Cooling Operation Conditions

Indoor Air Inlet Temperature: 27 °C DB  
19 °C WB  
Outdoor Air Inlet Temperature: 35 °C DB

#### Heating Operation Conditions

Indoor Air Inlet Temperature: 20 °C DB  
Outdoor Air Inlet Temperature: 7 °C DB  
6 °C WB

**Piping Length:** 7.5 meters

**Piping Lift:** 0 meters

**Sound Pressure Level Measurement Distance:**

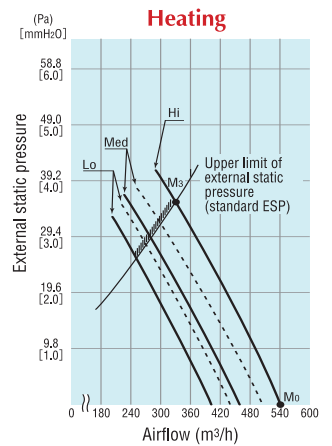
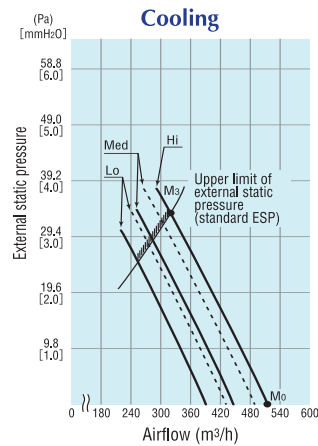
1.4m from beneath the unit

## RAD Technical Description

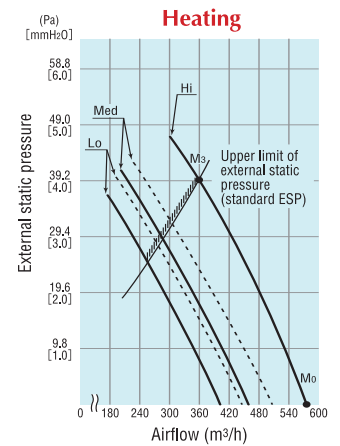
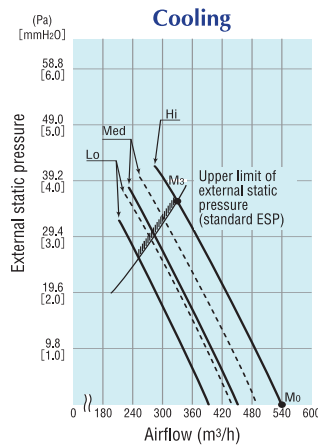
### Static pressure & airflow

The ceiling unit is equipped with a highly efficient, multi-blade centrifugal fan that generates a powerful yet gentle airflow throughout the room. A redesigned aerodynamically tested air panel minimises operational sound even at high fan speeds.

RAD-25NH5



RAD-35NH5



M3 = with 4m duct  
Mo = with one indoor unit connection

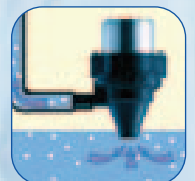
### Easy to install

The in the ceiling unit enables the air inlet and outlet system to be freely chosen depending on the building structure and room width, thus keeping your room looking beautiful.

Up to 4m of ductwork may be installed as the unit comes with a "high pressure" setting, enabling units to overcome the added external pressure.

### Built in drain pump

This ductable unit is equipped with an internal drain pump to remove accumulated condensation water from the drain pan even while it is operating. A float switch monitors the water level and automatically activates the pump as necessary.



In the ceiling



## General Data

Model		RAD-25NH5	RAD-35NH5
<b>Power Supply</b>		DC 35V	DC 35V
<b>Sound Pressure Level (Overall Scale)</b>			
Cooling	dBA	40/34/31/29	40/34/31/29
Heating	dBA	40/36/33/30	40/36/33/30
<b>Outer Dimensions (Net/(Carton))</b>			
Height	mm	235(306)	235(306)
Width	mm	750(806)	750(806)
Depth	mm	400(594)	400(594)
Weight	Kg	19(23)	19(23)
<b>Refrigerant</b>		R410A	R410A
Flow Control		–	–
<b>Indoor Fan</b>			
Air Flow Rate Cooling	m³/min	8.2/7.3/6.2	8.5/7.6/6.2
Air Flow Rate Heating	m³/min	9.2/7.5/6.2	9.3/7.6/6.2
<b>Refrigerant Piping</b>			
Liquid Line	mm (in)	6.35 (1/4)	6.35 (1/4)
Gas Line	mm (in)	9.52 (3/8)	9.52 (3/8)
<b>Interconnection wires</b>	pcs	3	3
<b>Auto Restart by Previous Mode</b>		Yes	Yes
<b>LED Self Diagnosis</b>		Yes	Yes
<b>Air Purifying Filter Type</b>		–	–
<b>Anti-bacterial Tangential Fan</b>		–	–
<b>Remote Control Timer</b>	Hr	24	24

MULTIZONE combination. For capacity information please refer to Combination Table

### NOTES:

#### Cooling Operation Conditions

Indoor Air Inlet Temperature: 27 °C DB  
19 °C WB  
Outdoor Air Inlet Temperature: 35 °C DB

#### Heating Operation Conditions

Indoor Air Inlet Temperature: 20 °C DB  
Outdoor Air Inlet Temperature: 7 °C DB  
6 °C WB

**Piping Length:** 7.5 meters

**Piping Lift:** 0 meters

**Sound Pressure Level Measurement Distance:**

1.4 m beneath the unit



# Outdoor units

The table below shows the units available in all Kw capacities and the usual application.

	Mono (1 Room) Monozone*				Dual (2 Rooms) Multizone**		Triple (3 Rooms) Multizone**	Quad (4 Rooms) Multizone**	
Model	25NH5	35NH5	50NH5	65NH5	40QH5	55QH5	65QH5	72QH5	80QH5
Max. nominal capacity of indoor unit combination (Kw)	2.5	3.5	5.0	6.0	6.0	7.5	8.8	11.0	12.0
Max pipe length (m)	20	20	20	30	35	35	45***	60	70

\* Nominal cooling capacity

\*\* Maximum indoor combination nominal cooling capacities

\*\*\* Chargeless 35mm

# Monozone/Multizone Combinations

## Mono



RAC-25NH5  
RAC-35NH5  
RAC-50NH5  
RAC-65NH5

## Dual



RAM-40QH5

RAM-55QH5

## Triple



RAM-65QH5

## Quad



RAM-72QH5

RAM-80QH5

Model		Combination of Indoor Unit		Mono		Dual		Triple		Quad	
		Combination	Total								
One Unit		2.5	2.5	●							
		3.5	3.5	●							
		5.0	5.0	●							
		6.0	6.0	●							
Two Units		1.8 1.8	3.6		●	●	●	●	●	●	●
		1.8 2.5	4.3		●	●	●	●	●	●	●
		1.8 3.5	5.3		●	●	●	●	●	●	●
		1.8 5.0	6.8			●	●	●	●	●	●
		1.8 6.0	7.8						●	●	●
		2.5 2.5	5.0		●	●	●	●	●	●	●
		2.5 3.5	6.0		●	●	●	●	●	●	●
		2.5 5.0	7.5			●	●	●	●	●	●
		2.5 6.0	8.5						●	●	●
		3.5 3.5	7.0			●	●	●	●	●	●
		3.5 5.0	8.5					●	●	●	●
		3.5 6.0	9.5						●	●	●
		5.0 5.0	10.0						●	●	●
		5.0 6.0	11.0						●	●	●
Three Units		1.8 1.8 1.8	5.4				●	●	●	●	●
		1.8 1.8 2.5	6.1				●	●	●	●	●
		1.8 1.8 3.5	7.1				●	●	●	●	●
		1.8 1.8 5.0	8.6				●	●	●	●	●
		1.8 1.8 6.0	9.6						●	●	●
		1.8 2.5 2.5	6.8				●	●	●	●	●
		1.8 2.5 3.5	7.8				●	●	●	●	●
		1.8 2.5 5.0	9.3						●	●	●
		1.8 2.5 6.0	10.3						●	●	●
		1.8 3.5 3.5	8.8				●	●	●	●	●
		1.8 3.5 5.0	10.3						●	●	●
		1.8 5.0 5.0	11.8						●	●	●
		2.5 2.5 2.5	7.5				●	●	●	●	●
		2.5 2.5 3.5	8.5				●	●	●	●	●
		2.5 2.5 5.0	10.0						●	●	●
		2.5 2.5 6.0	11.0						●	●	●
		2.5 3.5 3.5	9.5						●	●	●
		2.5 3.5 5.0	11.0						●	●	●
Four Units		3.5 3.5 3.5	10.5						●	●	●
		3.5 3.5 5.0	12.0						●	●	●
		1.8 1.8 1.8 1.8	7.2						●	●	●
		1.8 1.8 1.8 2.5	7.9						●	●	●
		1.8 1.8 2.5 2.5	8.6						●	●	●
		1.8 1.8 1.8 3.5	8.9						●	●	●
		1.8 1.8 2.5 3.5	9.6						●	●	●
		1.8 1.8 1.8 5.0	10.4						●	●	●
		1.8 1.8 2.5 5.0	11.1						●	●	●
		1.8 1.8 3.5 3.5	10.6						●	●	●
		1.8 2.5 2.5 2.5	9.3						●	●	●
		1.8 2.5 2.5 5.0	11.8						●	●	●
		1.8 2.5 2.5 3.5	10.3						●	●	●
		1.8 2.5 3.5 3.5	11.3						●	●	●
	2.5 2.5 2.5 2.5	10.0						●	●	●	
	2.5 2.5 2.5 3.5	11.0						●	●	●	
	2.5 2.5 3.5 3.5	12.0						●	●	●	
Max Total Combination Capacity				6.0	6.0	7.5	8.8	11.0	12.0		

• At least two indoor units should be connected

## Monozone – Technical Description

### General Data

Model	Indoor Outdoor	RAK-25NH5 RAC-25NH5	RAK-55NH5 RAC-35NH5	RAK-50NH5 RAC-50NH5	RAK-65NH5 RAC-65NH5
<b>Power Supply</b>		AC 1Ph 220-230V 50Hz			
<b>Nominal (min-max) Cooling Capacity</b>	KW	2.5(0.9-3.0)	3.5(0.9-4.0)	5.0(0.9-5.2)	6.05(0.9-6.5)
<b>Nominal (min- max) Heating Capacity</b>	KW	3.5(0.9-5.0)	4.8(0.9-6.6)	6.5(0.9-8.1)	7.05(0.9-9.0)
<b>Total Input</b>					
Cooling	W	695(155-1050)	1080(155-1280)	1780(155-2230)	2300(155-2500)
Heating	W	900(115-1400)	1320(115-1920)	1970(115-2700)	2400(115-2700)
<b>Total Current</b>					
Cooling	A	3.20-3.05	4.95-4.75	8.15-7.80	10.60-10.10
Heating	A	4.15-4.00	6.10-5.85	9.15-8.75	11.00-1050
<b>EER/COP</b>					
Cooling		3.60	3.24	2.81	2.63
Heating		3.89	3.64	3.30	2.94
<b>Sound Pressure Level (Overall Scale)</b>					
Cooling	dBA	38/32/26/20	41/35/29/25	47/39/31/27	47/42/33/28
Heating	dBA	39/33/27/23	41/35/30/26	47/39/31/27	47/42/34/33
<b>Condenser Sound Pressure Level</b>					
Cooling	dBA	46	47	50	50
Heating	dBA	46	49	52	53
<b>Indoor Outer Dimensions (Net/(Carton)</b>					
Height	mm	280(254)	280(254)	280(254)	295(271)
Width	mm	780(826)	780(826)	780(826)	1030(1100)
Depth	mm	210(325)	210(325)	210(325)	191(368)
Weight	Kg	9.5(11)	9.5(11)	9.5(11)	11(13)
<b>Condenser Outer Dimensions (Net/(Carton)</b>					
Height	mm	570(633)	570(633)	650(698)	650(698)
Width	mm	750(905)	750(905)	850(1008)	850(1008)
Depth	mm	280(394)	280(394)	298(394)	298(394)
Weight	Kg	38(43)	38(43)	45(50)	45(50)
<b>Cabinet Colour (Munsell Code)</b>		Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)
<b>Refrigerant</b>		R410A	R410A	R410A	R410A
<b>Flow Control</b>		Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve
<b>Compressor</b>					
Type x Qty		DC Twin Rotary x1	DC Twin Rotary x1	DC Twin Rotary x1	DC Twin Rotary x1
<b>Indoor Fan</b>					
Air Flow Rate Cooling	m³/min	8.5/7.0/6.0	10.1/8.0/6.5	13.5/10.0/6.8	13.5/12.5/11.3
Air Flow Rate Heating	m³/min	9.5/8.0/7.0	10.8/8.5/7.5	13.5/10.0/6.8	13.5/12.5/11.3
<b>Condenser Fan</b>					
Type		DC360V	DC360V	DC360V	DC360V
Air Flow Rate Cooling/Heating	m³/min	27/27	27/27	36/36	36/36
<b>Usable Outdoor Temperature</b>					
Cooling	–	-10-43	-10-43	-10-43	-10-43
Heating	–	-15-21	-15-21	-15-21	-15-21
<b>Refrigerant Piping</b>					
Liquid Line	mm (in)	6.35(1/4)	6.35(1/4)	6.35(1/4)	6.35(1/4)
Gas Line	mm (in)	9.52(3/8)	9.52(3/8)	12.7(1/2)	12.7(1/2)
<b>Pipe Run</b>					
Max Pipe Length (Chargeless)	m	20	20	20	30
Individual Pipe Length	m	–	–	–	–
Max Pipe Lift	m	10	10	10	10
<b>Interconnection wires</b>	pcs	3	3	3	3
<b>Starting current</b>	A	4.2	4.2	10	10
<b>Recommended Fuse Size</b>	A	16	16	16	16
<b>Auto Restart by Previous Mode</b>		Yes	Yes	Yes	Yes
<b>Auto Changeover</b>		Yes	Yes	Yes	Yes
<b>LED Self Diagnosis</b>		Yes	Yes	Yes	Yes
<b>Air Purifying Filter Type</b>		SPX-CFH11	SPX-CFH11	SPX-CFH11	SPX-CFH5
<b>Anti-bacterial Tangential Fan</b>		Yes	Yes	Yes	Yes
<b>Remote Control Timer</b>	Hr	24	24	24	24



# Monozone – Technical Description

## General Data

Model	Indoor Outdoor	RAF-25NH5 RAC-25NH5	RAF-35NH5 RAC-35NH5	RAF-50NH5 RAC-50NH5	RAI-25NH5 RAC-25NH5	RAI-35NH5 RAC-35NH5	RAI-50NH5 RAC-50NH5	RAD-25NH5 RAC-25NH5	RAD-35NH5 RAC-35NH5
<b>Power Supply</b>	AC 1Ph 220-230V 50Hz								
<b>Nom. (min-max) Cooling Capacity</b>	KW	2.5(0.9-3.0)	3.5(0.9-4.0)	5.0(0.9-5.2)	2.5(0.9-3.0)	3.5(0.9-4.0)	5.0(0.9-5.2)	2.5(0.9-3.0)	3.5(0.9-4.0)
<b>Nom. (min- max) Heating Capacity</b>	KW	3.5(0.9-5.0)	4.8(0.9-6.6)	6.7(0.9-8.1)	3.5(0.9-5.0)	4.8(0.9-6.6)	6.5(0.9-8.1)	3.5(0.9-5.0)	4.8(0.9-6.6)
<b>Total Input</b>									
Cooling	W	695(155-1050)	1080(155-1280)	1780(155-2230)	695(155-1050)	1100(155-1280)	1990(155-2200)	695(155-1050)	1240(155-1280)
Heating	W	900(115-1400)	1320(115-1920)	1850(115-2700)	940(155-1400)	1360(155-1920)	2160(155-2700)	970(155-1400)	1700(155-1920)
<b>Total Current</b>									
Cooling	A	3.20-3.05	4.95-4.75	8.15-7.80	3.20-3.05	5.05-4.85	9.15-8.70	3.20-3.05	5.70-5.45
Heating	A	4.15-4.00	6.10-5.85	8.60-8.20	4.35-4.15	6.30-6.00	10.00-9.60	4.50-4.30	7.90-7.55
<b>EER/COP</b>									
Cooling		3.60	3.24	2.81	3.60	3.18	2.51	3.60	2.82
Heating		3.89	3.64	3.62	3.72	3.53	3.01	3.61	2.82
<b>Sound Pressure Level (Overall Scale)</b>									
Cooling	dBA	35/31/26/23	40/35/28/24	44/37/28/24	35/32/29/25	39/34/29/26	43/35/32/29	40/34/31/29	40/34/31/29
Heating	dBA	35/31/26/25	41/35/31/26	44/37/32/27	36/33/30/27	40/36/32/29	43/36/32/30	40/36/33/30	40/36/33/30
<b>Condenser Sound Pressure Level</b>									
Cooling	dBA	46	47	50	46	47	50	46	47
Heating	dBA	46	49	52	46	49	52	46	49
<b>Indoor Outer Dimensions (Net/Carton)</b>									
Height	mm	600(656)	600(656)	600(656)	285(395)	285(395)	285(395)	235(306)	235(306)
Width	mm	750(797)	750(797)	750(797)	580(760)	580(760)	580(760)	750(806)	750(806)
Depth	mm	215(278)	215(278)	215(278)	580(706)	580(706)	580(706)	400(594)	400(594)
Weight	Kg	15(17)	15(17)	15(17)	20(25)	20(25)	20(25)	19(23)	19(23)
<b>Condenser Outer Dimensions (Net/Carton)</b>									
Height	mm	570(633)	570(633)	650(698)	570(633)	570(633)	650(698)	570(633)	570(633)
Width	mm	750(905)	750(905)	850(1008)	750(905)	750(905)	850(1008)	750(905)	750(905)
Depth	mm	280(394)	280(394)	298(394)	280(394)	280(394)	298(394)	280(394)	280(394)
Weight	Kg	38(43)	38(43)	45(50)	38(43)	38(43)	45(50)	38(43)	38(43)
<b>Cabinet Colour (Munsell Code)</b>		Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)
<b>Refrigerant</b>		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
<b>Flow Control</b>		Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve
<b>Compressor</b>									
Type x Qty		DC Twin Rotary x1			DC Twin Rotary x1			DC Twin Rotary x1DC Twin Rotary x1	
<b>Indoor Fan</b>									
Air Flow Rate Cooling	m³/min	7.2/5.0/4.5	9.5/5.5/5.0	10.3/8.5/6.0	8.5/7.0/5.8	10.8/8.0/5.8	12.0/8.0/5.8	8.2/7.3/6.2	8.5/7.6/6.2
Air Flow Rate Heating	m³/min	8.7/7.5/6.2	10.8/8.5/7.2	12.3/10.0/7.5	8.5/7.0/5.8	10.8/8.0/5.8	12.0/8.0/5.8	9.2/7.5/6.2	9.3/7.6/6.2
<b>Condenser Fan</b>									
Type		DC360V	DC360V	DC360V	DC360V	DC360V	DC360V	DC360V	DC360V
Air Flow Rate Cooling/Heating	m³/min	27/27	27/27	36/36	'27/27	'27/27	36/36	'27/27	'27/27
<b>Usable Outdoor Temperature</b>									
Cooling	–	-10-43	-10-43	-10-43	-10-43	-10-43	-10-43	-10-43	-10-43
Heating	–	-15-21	-15-21	-15-21	-15-21	-15-21	-15-21	-15-21	-15-21
<b>Refrigerant Piping</b>									
Liquid Line	mm (in)	6.35 (1/4)	6.35 (1/4)	6.35(1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)
Gas Line	mm (in)	9.52 (3/8)	9.52 (3/8)	12.7(1/2)	9.52 (3/8)	9.52 (3/8)	12.7(1/2)	9.52 (3/8)	9.52 (3/8)
<b>Pipe Run</b>									
Max Pipe Length (Chargeless)	m	20	20	20	20	20	20	20	20
Individual Pipe Length	m	–	–	–	–	–	–	–	–
Max Pipe Lift	m	10	10	10	10	10	10	10	10
<b>Interconnection Wire</b>	pcs	3	3	3	3	3	3	3	3
<b>Starting Current</b>	A	4.2	4.2	10.0	4.2	4.2	10.0	4.2	4.2
<b>Recommended Fuse Size</b>	A	16	16	16	16	16	16	16	16
<b>Auto Restart by Previous Mode</b>		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Auto Changeover</b>		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>LED Self Diagnosis</b>		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Air Purifying Filter Type</b>		(SPX-CFH5)*			–	–	–	–	–
<b>Anti-bacterial Tangential Fan</b>		–	–	–	–	–	–	–	–
<b>Remote Control Timer</b>	Hr	24	24	24	24	24	24	24	24

\* Option. Not included

## Multizone – Technical Description

### General Data



Model		RAM-40QH5	RAM-55QH5	RAM-65QH5
<b>Power Supply</b>		AC 1Ph 220-230V 50Hz		
<b>Nominal (min-max) Cooling Capacity</b>	KW	4.0 (1.0-4.5)	5.4 (1.5-5.9)	6.3 (1.5-6.6)
<b>Nominal (min- max) Heating Capacity</b>	KW	5.0 (1.1-5.6)	7.2 (1.5-7.2)	7.2 (1.5-7.2)
<b>Sound Pressure Level (Overall Scale)</b>				
Cooling (Night Mode)	dBA	49(43)	52(45)	52(45)
Heating (Night Mode)	dBA	51(44)	53(45)	53(45)
<b>Outer Dimensions (Net/(Carton)</b>				
Height	mm	570(633)	650(698)	650(698)
Width	mm	750(905)	850(1008)	850(1008)
Depth	mm	280(394)	298(394)	298(394)
Weight	Kg	40(44)	50(55)	50(55)
<b>Cabinet Colour (Munsell Code)</b>		Beige (5Y7/2)	Beige (5Y7/2)	Beige (5Y7/2)
<b>Refrigerant</b>		R410A	R410A	R410A
Flow Control		Expansion Valve	Expansion Valve	Expansion Valve
<b>Compressor</b>				
Type		DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
Quantity	set	1	1	1
<b>Condenser Fan</b>				
Type		DC350V	DC350V	DC350V
Air Flow Rate	Cooling/Heating	m <sup>3</sup> /min	27/27	36/36
<b>Usable Outdoor Temperature</b>				
Cooling	–	-10-43	-10-43	-10-43
Heating	–	-15-21	-15-21	-15-21
<b>Refrigerant Piping</b>		Flair Nut/Flange Connection		
Liquid Line	mm (in)	6.35(1/4)x 2	6.35 (1/4) x 2	6.35 (1/4) x 3
Gas Line	mm (in)	9.52(3/8)x 2	9.52 (3/8) x 2	9.52 (3/8) x 3
<b>Pipe Run</b>				
Max Pipe Length	m	35	35	45
Max Changeless Length	m	35	35	35
Additional Charge	g/m	–	–	20
Individual Pipe Length	m	25	25	25
Max Pipe Lift	m	10	10	10
<b>Starting current</b>	A	10	10	10
<b>Recommended Fuse Size</b>	A	16	16	16
<b>Interconnection wires</b>	pcs	3	3	3
<b>LED Self Diagnosis</b>		Yes	Yes	Yes

### NOTES:

#### Cooling Operation Conditions

Indoor Air Inlet Temperature: 27 °C DB  
19 °C WB  
Outdoor Air Inlet Temperature: 35 °C DB

#### Heating Operation Conditions

Indoor Air Inlet Temperature: 20 °C DB  
Outdoor Air Inlet Temperature: 7 °C DB  
6 °C WB

**Piping Length:** 7.5 meters

**Piping Lift:** 0 meters

**Sound Pressure Level Measurement Distance:**

1m from suction/discharge grille  
Approx. 1m from floor level

## Multizone – Technical Description

### General Data

Model		RAM-72QH5	RAM-80QH5	
<b>Power Supply</b>		AC 1Ph 220-230V 50Hz		
<b>Nominal (min-max) Cooling Capacity</b>	KW	7.1(2.4-8.8)	8.0(3.0-9.2)	
<b>Nominal (min- max) Heating Capacity</b>	KW	8.6(2.6-9.5)	11.0(3.0-12.4)	
<b>Sound Pressure Level (Overall Scale)</b>				
Cooling (Night Mode)	dBA	53(46)	49(43)	
Heating (Night Mode)	dBA	56(48)	51(43)	
<b>Outer Dimensions (Net/(Carton))</b>				
Height	mm	800(848)	830 (880)	
Width	mm	850(1008)	850 (997)	
Depth	mm	298(394)	340 (430)	
Weight	Kg	55(60)	79 (83)	
<b>Cabinet Colour (Munsell Code)</b>		Beige (5Y7/2)	Beige (5Y7/2)	
<b>Refrigerant</b>		R410A	R410A	
Flow Control		Expansion Valve	Expansion Valve	
<b>Compressor</b>				
Type		DC Twin Rotary	DC Scroll	
Quantity	set	1	2	
<b>Condenser Fan</b>				
Type		DC350V	DC350V	
Air Flow Rate	Cooling/Heating	m3/min	45/45	43/49
<b>Usable Outdoor Temperature</b>				
Cooling	–	-10-43	10-43	
Heating	–	-15-21	-15-21	
<b>Refrigerant Piping</b>				
Liquid Line	mm (in)	6.35 (1/4) x 4	6.35 (1/4) x 4	
Gas Line	mm (in)	9.52 (3/8) x 3,12.7(1/2) x1	9.52 (3/8) x 4	
<b>Pipe Run</b>				
Max Pipe Length	m	60	35+35	
Max Changeless Length	m	30	35+35	
Additional Charge	g/m	20	–	
Individual Pipe Length	m	25	25	
Max Pipe Lift	m	10	10	
<b>Starting current</b>	A	16	14.5	
<b>Recommended Fuse Size</b>	A	30	16	
<b>Interconnection wires</b>	pcs	3	3	
<b>LED Self Diagnosis</b>		Yes	Yes	

### Notes:

#### Cooling Capacities Conditions

Indoor Air Inlet Temp.	27°C DB 19°C WB
Outdoor Air Inlet Temp.	35°C DB

**Pipe length:** 7.5m  
**Pipe lift:** 0m

#### Heating Capacities Conditions

Indoor Air Inlet Temp.	20C DB
Outdoor Air Inlet Temp.	7C DB 6C WB

**Pipe length:** 7.5m  
**Pipe lift:** 0m

#### Sound Pressure Level Measurement Distance:

**RAK, RAS**  
1m from discharge grille  
0.8m beneath the unit's height centre

**RAF**  
1m from discharge grille  
Half of unit height from floor level

**RAI, RAD**  
1.4 m beneath the unit

**RAM**  
1m from suction/discharge grille  
Approx. 1m from floor level



## Monozone/Multizone Combinations

### RAC-25/35/50/65NH5

Connection of Indoor Units		Cooling Mode				Heating Mode			
		Total Capacity (KW)	Total Input (W)	Total Current (A)	EER	Total Capacity (KW)	Total Input (W)	Total Current (A)	COP
RAC-25NH5	RAK-25NH5	2.5 (0.9-3.0)	695 (155-1050)	3.05	3.60	3.5 (0.9-5.0)	900 (115-1400)	4.00	3.89
	RAF-25NH5	2.5 (0.9-3.0)	695 (155-1050)	3.20	3.60	3.5 (0.9-5.0)	900 (115-1400)	4.15	3.89
	RAI-25NH5	2.5 (0.9-3.0)	695 (155-1050)	3.20	3.60	3.5 (0.9-5.0)	940 (115-1400)	4.35	3.72
	RAD-25NH5	2.5 (0.9-3.0)	695 (155-1050)	3.20	3.60	3.5 (0.9-5.0)	970 (115-1400)	4.50	3.61
RAC-35NH5	RAK-35NH5	3.5 (0.9-4.0)	1080 (155-1280)	4.75	3.24	4.8 (0.9-6.6)	1320 (115-1920)	5.85	3.64
	RAF-35NH5	3.5 (0.9-4.0)	1080 (155-1280)	4.95	3.24	4.8 (0.9-6.6)	1320 (115-1920)	6.10	3.64
	RAI-35NH5	3.5 (0.9-4.0)	1100 (155-1280)	5.00	3.18	4.8 (0.9-6.6)	1360 (115-1920)	6.30	3.53
	RAD-35NH5	3.5 (0.9-4.0)	1240 (155-1280)	5.00	2.82	4.8 (0.9-6.6)	1700 (115-1920)	7.90	2.82
RAC-50NH5	RAK-50NH5	5.0 (0.9-5.2)	1780 (155-2230)	7.80	2.81	6.5 (0.9-8.1)	1970 (115-2700)	8.75	3.30
	RAF-50NH5	5.0 (0.9-5.2)	1780 (155-2230)	8.15	2.81	6.7 (0.9-8.1)	1850 (115-2700)	8.60	3.62
	RAI-50NH5	5.0 (0.9-5.2)	1990 (155-2200)	9.15	2.51	6.5 (0.9-8.1)	2160 (115-2700)	10.00	3.01
	-	-	-	-	-	-	-	-	-
RAC-65NH5	RAK-65NH5	6.0 (0.9-6.5)	2300 (155-2500)	10.10	2.63	7.05 (0.9-9.0)	2400 (115-2700)	10.50	2.94
	-	-	-	-	-	-	-	-	-

### RAM-40QH5

Combination of Indoor Unit (KW)		Cooling Mode						Heating Mode				
		Total (KW)	Capacity (KW)	Total	Outdoor Unit		EER	Capacity (KW)	Total	Outdoor Unit		COP
					Total Input (W)	Total Current (A)				Total Input (W)	Total Current(A)	
One Unit	1.8	1.8	1.80 (1.00-2.50)	1.8	560 (200-750)	2.5	3.21	2.50 (1.10-3.20)	2.5	690 (200-970)	3.0	3.62
	2.5	2.5	2.50 (1.00-3.10)	2.5	750 (200-880)	3.3	3.33	3.40 (1.10-4.40)	3.4	870 (200-1120)	3.8	3.91
	3.5	3.5	3.50 (1.00-4.00)	3.5	1090 (200-1300)	4.8	3.21	4.20 (1.10-5.00)	4.2	1080 (200-1300)	4.7	3.89
	1.8+1.8	3.6	1.80+1.80 (1.50-4.00)	3.6	1190 (200-1680)	5.2	3.03	2.25+2.25 (1.50-5.20)	4.5	1100 (200-1480)	4.8	4.09
Two Units	1.8+2.5	4.3	1.70+2.30 (1.50-4.50)	4.0	1245 (200-1720)	5.5	3.21	2.20+2.60 (1.50-5.40)	4.8	1240 (200-1750)	5.4	3.87
	2.5+2.5	5.0	2.00+2.00 (1.50-4.50)	4.0	1245 (200-1800)	5.5	3.21	2.50+2.50 (1.50-5.60)	5.0	1350 (200-1780)	5.9	3.70
	1.8+3.5	5.3	1.60+2.40 (1.50-4.50)	3.0	1245 (200-1800)	5.5	2.41	1.70+3.30 (1.50-5.60)	5.0	1350 (200-1780)	5.9	3.70
	2.5+3.5	6.0	1.80+2.20 (1.50-4.50)	4.0	1245 (200-1800)	5.5	3.21	2.00+3.00 (1.50-5.60)	5.0	1350 (200-1780)	5.9	3.70

\*At least two indoor units should be connected

# Multizone Combinations

## RAM-55QH5

	Combination of Indoor Unit (KW)	Cooling Mode						Heating Mode				
		Total (KW)	Capacity (KW)	Total	Outdoor Unit		EER	Capacity (KW)	Total	Outdoor Unit		COP
					Total Input (W)	Total Current (A)				Total Input (W)	Total Current(A)	
One Unit	1.8	1.8	1.80 (1.00-2.50)	1.80	560 (200-750)	2.5	3.21	2.50 (1.10-3.20)	2.50	750 (200-1050)	3.3	3.33
	2.5	2.5	2.50 (1.00-2.80)	2.50	780 (200-980)	3.4	3.33	3.90 (1.10-4.70)	3.90	1145 (200-1380)	5.0	3.41
	3.5	3.5	3.50 (1.00-3.90)	3.50	1160 (200-1380)	5.1	3.21	4.80 (1.10-5.80)	4.80	1550 (200-1870)	6.8	3.10
	5.0	5.0	5.00 (1.00-5.60)	5.00	1780 (200-1960)	7.8	3.21	6.50 (1.10-7.20)	6.50	2400 (200-2660)	10.5	2.71
Two Units	1.8+1.8	3.6	1.80+1.80 (1.50-4.00)	3.60	1190 (200-1300)	5.2	3.03	2.50+2.50 (1.50-5.20)	5.00	1460 (200-1550)	6.4	3.42
	1.8+2.5	4.3	1.80+2.40 (1.50-4.60)	4.20	1310 (200-1450)	5.8	3.21	2.40+3.80 (1.50-6.30)	6.20	1820 (200-1920)	8.0	3.41
	1.8+3.5	5.3	1.70+3.30 (1.50-5.60)	5.00	1650 (200-1820)	7.2	3.03	2.30+4.50 (1.50-7.20)	6.80	1995 (200-2100)	8.8	3.41
	1.8+5.0	6.8	1.40+4.00 (1.50-5.90)	5.40	1795 (200-1980)	7.9	3.01	2.00+5.00 (1.50-7.20)	7.00	2050 (200-2100)	9.0	3.41
	2.5+2.5	5.0	2.50+2.50 (1.50-5.60)	5.00	1650 (200-1820)	7.2	3.03	3.40+3.40 (1.50-7.20)	6.80	2015 (200-2110)	8.8	3.37
	2.5+3.5	6.0	2.17+3.03 (1.50-5.70)	5.20	1730 (200-1900)	7.6	3.01	3.15+3.85 (1.50-7.20)	7.00	2070 (200-2110)	9.1	3.38
	3.5+3.5	7.0	2.70+2.70 (1.50-5.90)	5.40	1795 (200-1980)	7.9	3.01	3.60+3.60 (1.50-7.20)	7.20	2110 (200-2110)	9.3	3.41
	2.5+5.0	7.5	1.80+3.60 (1.50-5.90)	5.40	1795 (200-1980)	7.9	3.01	2.70+4.50 (1.50-7.20)	7.20	2110 (200-2110)	9.3	3.41

## RAM-65QH5

	Combination of Indoor Unit (KW)	Cooling Mode						Heating Mode				
		Total (KW)	Capacity (KW)	Total	Outdoor Unit		EER	Capacity (KW)	Total	Outdoor Unit		COP
					Total Input (W)	Total Current (A)				Total Input (W)	Total Current(A)	
One Unit	1.8	1.8	1.80 (1.00-2.50)	1.80	560 (200-750)	2.5	3.21	2.50 (1.10-3.20)	2.50	750 (200-1050)	3.3	3.33
	2.5	2.5	2.50 (1.00-2.80)	2.50	780 (200-980)	3.4	3.21	3.90 (1.10-4.70)	3.90	1145 (200-1380)	5.0	3.41
	3.5	3.5	3.50 (1.00-3.90)	3.50	1160 (200-1280)	5.1	3.02	4.80 (1.10-5.80)	4.80	1550 (200-1870)	6.8	3.10
	5.0	5.0	5.00 (1.00-5.60)	5.00	1780 (200-1960)	7.8	2.81	6.50 (1.10-7.20)	6.50	2400 (200-2660)	10.5	2.71
Two Units	1.8+1.8	3.6	1.80+1.80 (1.50-4.00)	3.60	1190 (200-1300)	5.2	3.03	2.50+2.50 (1.50-5.20)	5.00	1460 (200-1550)	6.4	3.42
	1.8+2.5	4.3	1.80+2.40 (1.50-4.60)	4.20	1310 (200-1450)	5.8	3.21	2.40+3.80 (1.50-6.30)	6.20	1820 (200-1920)	8.0	3.41
	1.8+3.5	5.3	1.70+3.30 (1.50-5.60)	5.00	1650 (200-1820)	7.2	3.03	2.30+4.50 (1.50-7.20)	6.80	1995 (200-2100)	8.8	3.41
	1.8+5.0	6.8	1.40+4.00 (1.50-5.90)	5.40	1795 (200-1980)	7.9	3.01	2.00+5.00 (1.50-7.20)	7.00	2050 (200-2100)	9.0	3.41
	2.5+2.5	5.0	2.50+2.50 (1.50-5.60)	5.00	1650 (200-1820)	7.2	3.03	3.40+3.40 (1.50-7.20)	6.80	2015 (200-2100)	8.8	3.37
	2.5+3.5	6.0	2.17+3.03 (1.50-5.70)	5.20	1730 (200-1900)	7.6	3.01	3.15+3.85 (1.50-7.20)	7.00	2070 (200-2100)	9.1	3.38
	3.5+3.5	7.0	2.70+2.70 (1.50-5.90)	5.40	1795 (200-1980)	7.9	3.01	3.60+3.60 (1.50-7.20)	7.20	2110 (200-2110)	9.3	3.41
	2.5+5.0	7.5	1.80+3.60 (1.50-5.90)	5.40	1795 (200-1980)	7.9	3.01	2.70+4.50 (1.50-7.20)	7.20	2110 (200-2110)	9.3	3.41
	3.5+5.0	8.5	2.20+3.20 (1.50-5.90)	5.40	1995 (200-2200)	8.8	2.71	3.05+4.15 (1.50-7.20)	7.20	2110 (200-2110)	9.3	3.41
Three Units	1.8+1.8+1.8	5.4	1.80+1.80+1.80 (1.50-6.00)	5.40	1780 (200-2200)	7.8	3.03	2.33+2.33+2.33 (1.50-7.20)	7.00	1850 (200-2110)	8.2	3.78
	1.8+1.8+2.5	6.1	1.80+1.80+2.50 (1.50-6.40)	6.10	2020 (200-2200)	8.9	3.02	2.00+2.00+3.20 (1.50-7.20)	7.20	1900 (200-2110)	8.4	3.79
	1.8+1.8+3.5	7.1	1.60+1.60+3.10 (1.50-6.60)	6.30	2095 (200-2200)	9.2	3.01	1.85+1.85+3.50 (1.50-7.20)	7.20	1900 (200-2110)	8.4	3.79
	1.8+1.8+5.0	8.6	1.30+1.30+3.70 (1.50-6.60)	6.30	2095 (200-2200)	9.2	3.01	1.60+1.60+4.00 (1.50-7.20)	7.20	1900 (200-2110)	8.4	3.79
	1.8+2.5+2.5	6.8	1.70+2.30+2.30 (1.50-6.60)	6.30	2095 (200-2200)	9.2	3.01	1.80+2.70+2.70 (1.50-7.20)	7.20	1900 (200-2110)	8.4	3.79
	1.8+2.5+3.5	7.8	1.50+2.00+2.80 (1.50-6.60)	6.30	2095 (200-2200)	9.2	3.01	1.60+2.50+3.10 (1.50-7.20)	7.20	1900 (200-2110)	8.4	3.79
	1.8+3.5+3.5	8.8	1.30+2.50+2.50 (1.50-6.60)	6.30	2095 (200-2200)	9.2	3.01	1.40+2.90+2.90 (1.50-7.20)	7.20	1900 (200-2110)	8.4	3.79
	2.5+2.5+2.5	7.5	2.10+2.10+2.10 (1.50-6.60)	6.30	2095 (200-2200)	9.2	3.01	2.40+2.40+2.40 (1.50-7.20)	7.20	1900 (200-2110)	8.4	3.79
	2.5+2.5+3.5	8.5	1.85+1.85+2.60 (1.50-6.60)	6.30	2095 (200-2200)	9.2	3.01	2.23+2.23+2.74 (1.50-7.20)	7.20	1900 (200-2110)	8.4	3.79

\*At least two indoor units should be connected

## Multizone Combinations

### RAM-72QH5

	Combination of Indoor Unit (KW)	Cooling						Heating				
		Total (KW)	Capacity (KW)	Total	Outdoor Unit		EER	Capacity (KW)	Total	Outdoor Unit		COP
					Total Input (W)	Total Current (A)				Total Input (W)	Total Current (A)	
One Unit	1.8	1.8	1.80 (1.50-2.00)	1.8	450 (280-500)	2.0	4.00	2.50 (1.80-3.50)	2.5	850 (320-1130)	3.7	2.94
	2.5	2.5	2.50 (1.50-2.80)	2.5	650 (280-720)	2.9	3.85	3.40 (1.80-4.70)	3.4	1130 (320-1480)	5.0	3.01
	3.5	3.5	3.50 (1.50-3.90)	3.5	1030 (280-1130)	4.5	3.40	4.30 (1.80-5.80)	4.3	1520 (320-1950)	6.7	2.83
	5.0	5.0	5.00 (1.50-5.60)	5.0	1640 (280-1800)	7.2	3.05	6.50 (1.80-7.20)	6.5	2400 (320-2530)	10.5	2.71
	6.0	6.0	6.00 (1.50-6.60)	6.0	2080 (280-2290)	9.1	2.88	7.30 (1.80-8.50)	7.3	2590 (320-2860)	11.4	2.82
Two Units	1.8+1.8	3.6	1.8+1.8 (2.00-4.00)	3.6	830 (380-1020)	3.6	4.34	3.2+3.2 (2.20-8.60)	6.4	1770 (390-2750)	7.8	3.62
	1.8+2.5	4.3	1.8+2.5 (2.00-4.70)	4.3	1120 (380-1360)	4.9	3.84	3.2+3.6 (2.20-9.30)	6.8	1940 (390-3000)	8.5	3.51
	1.8+3.5	5.3	1.8+3.5 (2.00-5.80)	5.3	1600 (380-1950)	7.0	3.31	3.2+4.3 (2.20-9.50)	7.5	2240 (390-3120)	9.8	3.35
	1.8+5.0	6.8	1.8+5.0 (2.00-7.10)	6.8	2420 (380-2820)	10.6	2.81	2.3+6.3 (2.20-9.50)	8.6	2470 (390-3120)	10.8	3.48
	1.8+6.0	7.8	1.7+5.4 (2.00-7.50)	7.1	2450 (380-2980)	10.8	2.90	2.0+6.6 (2.20-9.50)	8.6	2450 (390-3120)	10.8	3.51
	2.5+2.5	5.0	2.5+2.5 (2.00-5.50)	5.0	1410 (380-1720)	6.2	3.55	3.6+3.6 (2.20-9.50)	7.2	2070 (390-3120)	9.1	3.48
	2.5+3.5	6.0	2.5+3.5 (2.00-6.60)	6.0	1950 (380-2380)	8.6	3.08	3.6+4.3 (2.20-9.50)	7.9	2420 (390-3120)	10.6	3.26
	2.5+5.0	7.5	2.4+4.7 (2.00-7.50)	7.1	2530 (380-2980)	11.1	2.81	2.9+5.7 (2.20-9.50)	8.6	2470 (390-3120)	10.8	3.48
	2.5+6.0	8.5	2.1+5.0 (2.00-7.50)	7.1	2450 (380-2980)	10.8	2.90	2.55+6.05 (2.20-9.50)	8.6	2450 (390-3120)	10.8	3.51
	3.5+3.5	7.0	3.5+3.5 (2.00-7.40)	7.0	2630 (380-2940)	11.6	2.66	4.3+4.3 (2.20-9.50)	8.6	2670 (390-3120)	11.7	3.22
	3.5+5.0	8.5	2.9+4.2 (2.00-7.50)	7.1	2530 (380-2980)	11.1	2.81	3.55+5.05 (2.20-9.50)	8.6	2470 (390-3120)	10.8	3.48
	3.5+6.0	9.5	2.6+4.5 (2.00-7.80)	7.1	2450 (380-3100)	10.8	2.90	3.15+5.45 (2.20-9.50)	8.6	2450 (390-3120)	10.8	3.51
	5.0+5.0	10.0	3.55+3.55 (2.00-8.00)	7.1	2530 (380-3170)	11.1	2.81	4.3+4.3 (2.20-9.50)	8.6	2470 (390-3120)	10.8	3.48
	5.0+6.0	11.0	3.2+3.9 (2.00-8.00)	7.1	2360 (380-3170)	10.4	3.01	3.9+4.7 (2.20-9.50)	8.6	2450 (390-3120)	10.8	3.51
	Three Units	1.8+1.8+1.8	5.4	1.8+1.8+1.8 (2.20-5.90)	5.4	1250 (420-2190)	5.5	4.32	2.86+2.86+2.86 (2.40-9.50)	8.6	2290 (430-2600)	10.1
1.8+1.8+2.5		6.1	1.8+1.8+2.5 (2.20-6.70)	6.1	1590 (420-2480)	7.0	3.84	2.55+2.55+3.50 (2.40-9.50)	8.6	2290 (430-2600)	10.1	3.76
1.8+1.8+3.5		7.1	1.8+1.8+3.5 (2.20-7.80)	7.1	2210 (420-2890)	9.7	3.21	2.2+2.2+4.2 (2.40-9.50)	8.6	2290 (430-2600)	10.1	3.76
1.8+1.8+5.0		8.6	1.5+1.5+4.1 (2.20-8.00)	7.1	2180 (420-2960)	9.6	3.26	1.8+1.8+5.0 (2.40-9.50)	8.6	2280 (430-2600)	10.0	3.77
1.8+1.8+6.0		9.6	1.35+1.35+4.40 (2.20-8.00)	7.1	2160 (420-2960)	9.5	3.29	1.6+1.6+5.4 (2.40-9.50)	8.6	2260 (430-2600)	9.9	3.81

# Multizone Combinations

## RAM-72QH5 continued

Combination of Indoor Unit (KW)	Cooling						Heating				
	Total (KW)	Capacity (KW)	Total	Outdoor Unit		EER	Capacity (KW)	Total	Outdoor Unit		COP
				Total Input (W)	Total Current (A)				Total Input (W)	Total Current (A)	
1.8+2.5+2.5	6.8	1.8+2.5+2.5 (2.20-7.50)	6.8	2040 (420-2780)	9.0	3.33	2.3+3.15+3.15 (2.40-9.50)	8.6	2290 (430-2600)	10.1	3.76
1.8+2.5+3.5	7.8	1.65+2.25+3.2 (2.20-8.00)	7.1	2210 (420-2960)	9.7	3.21	2.0+2.75+3.85 (2.40-9.50)	8.6	2290 (430-2600)	10.1	3.76
1.8+2.5+5.0	9.3	1.4+1.9+3.8 (2.20-8.00)	7.1	2180 (420-2960)	9.6	3.26	1.7+2.3+4.6 (2.40-9.50)	8.6	2280 (430-2600)	10.0	3.77
1.8+2.5+6.0	10.3	1.25+1.70+4.15 (2.20-8.00)	7.1	2160 (420-2960)	9.5	3.29	1.5+2.1+5.0 (2.40-9.50)	8.6	2260 (430-2600)	9.9	3.81
1.8+3.5+3.5	8.8	1.40+2.85+2.85 (2.20-8.00)	7.1	2210 (420-2960)	9.7	3.21	1.8+3.4+3.4 (2.40-9.50)	8.6	2290 (430-2600)	10.1	3.76
1.8+3.5+5.0	10.3	1.25+2.40+3.45 (2.20-8.00)	7.1	2180 (420-2960)	9.6	3.26	1.5+2.9+4.2 (2.40-9.50)	8.6	2280 (430-2600)	10.0	3.77
2.5+2.5+2.5	7.5	2.36+2.36+2.36 (2.20-7.80)	7.1	2210 (420-2890)	9.7	3.21	2.86+2.86+2.86 (2.40-9.50)	8.6	2290 (430-2600)	10.1	3.76
2.5+2.5+3.5	8.5	2.1+2.1+2.9 (2.20-8.00)	7.1	2210 (420-2960)	9.7	3.21	2.55+2.55+3.50 (2.40-9.50)	8.6	2290 (430-2600)	10.1	3.76
2.5+2.5+5.0	10.0	1.8+1.8+3.5 (2.20-8.00)	7.1	2180 (420-2960)	9.6	3.26	2.15+2.15+4.3 (2.40-9.50)	8.6	2280 (430-2600)	10.0	3.77
2.5+2.5+6.0	11.0	1.6+1.6+3.9 (2.20-8.00)	7.1	2160 (420-2960)	9.5	3.29	1.95+1.95+4.70 (2.40-9.50)	8.6	2260 (430-2600)	9.9	3.81
2.5+3.5+3.5	9.5	1.9+2.6+2.6 (2.20-8.00)	7.1	2210 (420-2960)	9.7	3.21	2.2+3.2+3.2 (2.40-9.50)	8.6	2290 (430-2600)	10.1	3.76
2.5+3.5+5.0	11.0	1.6+2.25+3.25 (2.20-8.00)	7.1	2180 (420-2960)	9.6	3.26	1.95+2.75+3.90 (2.40-9.50)	8.6	2280 (430-2600)	10.0	3.77
3.5+3.5+3.5	10.5	2.36+2.36+2.36 (2.20-8.00)	7.1	2210 (420-2960)	9.7	3.21	2.86+2.86+2.86 (2.40-9.50)	8.6	2280 (430-2600)	10.0	3.77
1.8+1.8+1.8+1.8	7.2	1.77+1.77+1.77+1.77 (2.40-7.90)	7.1	2140 (450-2870)	9.4	3.32	2.15+2.15+2.15+2.15 (2.60-9.50)	8.6	2200 (460-2520)	9.7	3.91
1.8+1.8+1.8+2.5	7.9	1.6+1.6+1.6+2.3 (2.40-8.30)	7.1	2140 (450-3020)	9.4	3.32	2.0+2.0+2.0+2.6 (2.60-9.50)	8.6	2200 (460-2520)	9.7	3.91
1.8+1.8+1.8+3.5	8.9	1.45+1.45+1.45+2.75 (2.40-8.50)	7.1	2140 (450-3090)	9.4	3.32	1.8+1.8+1.8+3.2 (2.60-9.50)	8.6	2200 (460-2520)	9.7	3.91
1.8+1.8+1.8+5.0	10.4	1.25+1.25+1.25+3.35 (2.40-8.80)	7.1	2140 (450-3200)	9.4	3.32	1.5+1.5+1.5+4.1 (2.60-9.50)	8.6	2180 (460-2520)	9.6	3.94
1.8+1.8+2.5+2.5	8.6	1.5+1.5+2.05+2.05 (2.40-8.50)	7.1	2140 (450-3090)	9.4	3.32	1.8+1.8+2.5+2.5 (2.60-9.50)	8.6	2200 (460-2520)	9.7	3.91
1.8+1.8+2.5+3.5	9.6	1.35+1.35+1.80+2.6 (2.40-8.50)	7.1	2140 (450-3090)	9.4	3.32	1.6+1.6+2.25+3.15 (2.60-9.50)	8.6	2200 (460-2520)	9.7	3.91
1.8+1.8+3.5+3.5	10.6	1.2+1.2+2.35+2.35 (2.40-8.80)	7.1	2140 (450-3200)	9.4	3.32	1.5+1.5+2.8+2.8 (2.60-9.50)	8.6	2180 (460-2520)	9.6	3.94
1.8+2.5+2.5+2.5	9.3	1.4+1.9+1.9+1.9 (2.40-8.50)	7.1	2140 (450-3090)	9.4	3.32	1.7+2.3+2.3+2.3 (2.60-9.50)	8.6	2200 (460-2520)	9.7	3.91
1.8+2.5+2.5+3.5	10.3	1.25+1.75+1.75+2.35 (2.40-8.80)	7.1	2140 (450-3200)	9.4	3.32	1.5+2.1+2.1+2.9 (2.60-9.50)	8.6	2180 (460-2520)	9.6	3.94
2.5+2.5+2.5+2.5	10.0	1.77+1.77+1.77+1.77 (2.40-8.80)	7.1	2140 (450-3200)	9.4	3.32	2.15+2.15+2.15+2.15 (2.60-9.50)	8.6	2180 (460-2520)	9.6	3.94
2.5+2.5+2.5+3.5	11.0	1.6+1.6+1.6+2.3 (2.40-8.80)	7.1	2140 (450-3200)	9.4	3.32	1.95+1.95+1.95+2.75 (2.60-9.50)	8.6	2180 (460-2520)	9.6	3.94

# Multizone Combinations

## RAM-80QH5

	Combination of Indoor Unit (KW)	Cooling						Heating				
		Total (KW)	Capacity (KW)	Total	Outdoor Unit		EER	Capacity (KW)	Total	Outdoor Unit		COP
					Total Input (W)	Total Current (A)				Total Input (W)	Total Current (A)	
One Unit	1.8	1.8	1.80 (1.00-2.50)	1.8	560 (360-750)	2.5	3.21	2.50 (1.10-3.20)	2.5	690 (320-970)	3.0	3.62
	2.5	2.5	2.50 (1.00-2.80)	2.5	780 (360-980)	3.4	3.21	3.90 (1.10-4.70)	3.9	1100 (320-1280)	4.8	3.55
	3.5	3.5	3.50 (1.00-4.00)	3.5	1160 (360-1280)	5.1	3.02	4.80 (1.10-5.80)	4.8	1380 (320-1750)	6.1	3.48
	5.0	5.0	5.00 (1.00-5.60)	5.0	1910 (360-2100)	8.4	2.62	6.70 (1.10-7.60)	6.7	2070 (320-2170)	9.1	3.24
Two Units	1.8+1.8	3.6	1.80+1.80 (1.50-4.10)	3.6	1120 (640-1240)	4.9	3.21	2.50+2.50 (1.50-5.50)	5.0	1380 (600-1520)	6.1	3.62
	1.8+2.5	4.3	1.80+2.50 (1.50-4.50)	4.3	1320 (640-1450)	5.8	3.26	2.50+3.90 (1.50-7.00)	6.4	1770 (600-1950)	7.8	3.62
	1.8+3.5	5.3	1.80+3.50 (1.50-5.80)	5.3	1760 (640-1940)	7.7	3.01	2.50+4.80 (1.50-8.40)	7.3	2150 (600-2380)	9.4	3.40
	1.8+5.0	6.8	1.70+4.90 (1.50-7.20)	6.0	1990 (640-2190)	8.7	3.02	2.20+6.00 (1.50-9.00)	8.2	2850 (600-3150)	12.5	2.88
	2.5+2.5	5.0	2.50+2.50 (1.50-5.60)	5.0	1560 (640-1720)	6.9	3.21	3.90+3.90 (1.50-8.60)	7.8	2160 (600-2390)	9.5	3.61
	2.5+3.5	6.0	2.50+3.50 (1.50-6.60)	6.0	1990 (640-2190)	8.7	3.02	3.90+4.80 (1.50-9.60)	8.7	2690 (600-2960)	11.8	3.23
	2.5+5.0	7.5	2.50+4.50 (1.50-7.60)	7.0	2600 (640-2860)	11.4	2.69	3.00+6.00 (1.50-9.90)	9.0	3200 (600-3520)	14.1	2.81
	3.5+3.5	7.0	3.50+3.50 (1.50-7.60)	7.0	2600 (640-2860)	11.4	2.69	4.70+4.70 (1.50-10.30)	9.4	3200 (600-3520)	14.1	2.94
	3.5+5.0	8.5	3.10+4.40 (1.50-8.00)	7.5	2720 (640-2990)	11.9	2.76	4.00+5.60 (1.50-10.60)	9.6	3300 (600-3630)	14.5	2.91
	5.0+5.0	10.0	4.00+4.00 (1.50-8.20)	8.0	2760 (640-3040)	12.1	2.90	4.80+4.80 (1.50-10.60)	9.6	3300 (600-3630)	14.5	2.91
Two Units	1.8+1.8	3.6	1.80+1.80 (1.50-4.00)	3.6	1120 (640-1230)	4.9	3.21	2.25+2.25 (1.50-5.20)	4.5	1280 (600-1480)	5.6	3.52
	1.8+2.5	4.3	1.70+2.30 (1.50-4.50)	4.0	1280 (640-1400)	5.6	3.13	2.20+2.60 (1.50-5.50)	4.8	1360 (600-1600)	6.0	3.53
	1.8+3.5	5.3	1.60+3.40 (1.50-5.50)	5.0	1660 (640-1830)	7.3	3.01	2.00+3.80 (1.50-6.40)	5.8	1580 (600-1740)	6.9	3.67
	1.8+5.0	6.8	1.50+4.10 (1.50-6.20)	5.6	1860 (640-2050)	8.2	3.01	1.70+4.50 (1.50-6.80)	6.2	1930 (600-2120)	8.5	3.21
	2.5+2.5	5.0	2.50+2.50 (1.50-5.50)	5.0	1660 (640-1830)	7.3	3.01	2.90+2.90 (1.50-6.40)	5.8	1580 (600-1740)	6.9	3.67
	2.5+3.5	6.0	2.30+3.30 (1.50-6.20)	5.6	1860 (640-2050)	8.2	3.01	2.60+3.60 (1.50-6.80)	6.2	1930 (600-2120)	8.5	3.21
	3.5+3.5	7.0	2.80+2.80 (1.50-6.20)	5.6	1860 (640-2050)	8.2	3.01	3.10+3.10 (1.50-6.80)	6.2	1930 (600-2120)	8.5	3.21
Three Units	1.8+1.8+1.8	5.4	1.80+1.80+1.80 (3.00-6.00)	5.4	1750 (650-2100)	7.7	3.09	2.50+2.50+2.50 (3.00-8.30)	7.5	1860 (620-3630)	8.2	4.03
	1.8+1.8+2.5	6.1	1.80+1.80+2.50 (3.00-6.70)	6.1	1980 (650-2380)	8.7	3.08	2.50+2.50+3.90 (3.00-9.80)	8.9	2210 (620-3630)	9.7	4.03
	1.8+1.8+3.5	7.1	1.80+1.80+3.50 (3.00-7.50)	7.1	2300 (650-2760)	10.1	3.09	2.50+2.50+4.80 (3.00-10.80)	9.8	2430 (620-3630)	10.7	4.03
	1.8+1.8+5.0	8.6	1.70+1.70+4.60 (3.00-8.20)	8.0	2580 (650-3200)	11.3	3.10	2.20+2.20+5.80 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
	1.8+2.5+2.5	6.8	1.80+2.50+2.50 (3.00-7.50)	6.8	2250 (650-2700)	9.9	3.02	2.50+3.85+3.85 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
	1.8+2.5+3.5	7.8	1.80+2.50+3.50 (3.00-8.00)	7.8	2510 (650-3000)	11.0	3.11	2.30+3.50+4.40 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03

◇ Two Units each unit is connected to each compressor

◆ Two Units two units are connected to one compressor

# Multizone Combinations

## RAM-80QH5 continued

	Combination of Indoor Unit (KW)	Cooling					Heating					
		Total (KW)	Capacity (KW)	Total	Outdoor Unit		EER	Capacity (KW)	Total	Outdoor Unit		COP
					Total Input (W)	Total Current (A)				Total Input (W)	Total Current (A)	
Three Units	1.8+2.5+5.0	9.3	1.50+2.00+4.50 (3.00-8.20)	8.0	2580 (650-3200)	11.3	3.1 <sup>0</sup>	2.00+3.00+5.20 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
	1.8+3.5+3.5	8.8	1.60+3.20+3.20 (3.00-8.20)	8.0	2580 (650-3200)	11.3	3.10	2.00+4.10+4.10 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
	1.8+3.5+5.0	10.3	1.50+2.50+4.00 (3.00-8.20)	8.0	2580 (650-3200)	11.3	3.10	1.80+3.50+4.90 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
	1.8+5.0+5.0	11.8	1.20+3.40+3.40 (3.00-8.20)	8.0	2580 (650-3200)	11.3	3.10	1.60+4.30+4.30 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
	2.5+2.5+2.5	7.5	2.50+2.50+2.50 (3.00-8.20)	7.5	2420 (650-3000)	10.6	3.10	3.40+3.40+3.40 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
	2.5+2.5+3.5	8.5	2.30+2.30+3.40 (3.00-8.20)	8.0	2580 (650-3200)	11.3	3.10	3.00+3.00+4.20 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
	2.5+2.5+5.0	10.0	2.00+2.00+4.00 (3.00-8.20)	8.0	2580 (650-3200)	11.3	3.10	2.60+2.60+5.00 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
	2.5+3.5+3.5	9.5	2.00+3.00+3.00 (3.00-8.20)	8.0	2580 (650-3200)	11.3	3.10	2.60+3.80+3.80 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
	2.5+3.5+5.0	11.0	1.80+2.60+3.60 (3.00-8.20)	8.0	2580 (650-3200)	11.3	3.10	2.30+3.30+4.60 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
	3.5+3.5+3.5	10.5	2.66+2.66+2.66 (3.00-8.20)	8.0	2580 (650-3200)	11.3	3.10	3.40+3.40+3.40 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03
3.5+3.5+5.0	12.0	2.40+2.40+3.20 (3.00-8.20)	8.0	2580 (650-3200)	11.3	3.10	3.00+3.00+4.20 (3.00-11.20)	10.2	2530 (620-3630)	11.1	4.03	
Four Units	1.8+1.8+1.8+1.8	7.2	1.80+1.80+1.80+1.80 (3.00-8.30)	7.2	2280 (650-2750)	10.0	3.16	2.50+2.50+2.50+2.50 (3.00-11.20)	10.0	2560 (620-3550)	11.2	3.91
	1.8+1.8+1.8+2.5	7.9	1.80+1.80+1.80+2.50 (3.00-9.00)	7.9	2580 (650-3100)	11.3	3.06	2.40+2.40+2.40+3.80 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	1.8+1.8+1.8+3.5	8.9	1.60+1.60+1.60+3.20 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	2.30+2.30+2.30+4.10 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	1.8+1.8+1.8+5.0	10.4	1.40+1.40+1.40+3.80 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	2.0+2.00+2.00+5.00 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	1.8+1.8+2.5+2.5	8.6	1.70+1.70+2.30+2.30 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	2.20+2.20+3.30+3.30 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	1.8+1.8+2.5+3.5	9.6	1.50+1.50+2.10+2.90 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	2.00+2.00+3.10+3.90 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	1.8+1.8+2.5+5.0	11.1	1.30+1.30+1.80+3.60 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	1.80+1.80+2.70+4.70 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	1.8+1.8+3.5+3.5	10.6	1.40+1.40+2.60+2.60 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	1.90+1.90+3.60+3.60 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	1.8+2.5+2.5+2.5	9.3	1.40+2.20+2.20+2.20 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	2.00+3.00+3.00+3.00 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	1.8+2.5+2.5+3.5	10.3	1.40+2.00+2.00+2.60 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	1.80+2.80+2.80+3.60 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	1.8+2.5+2.5+5.0	11.8	1.20+1.70+1.70+3.40 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	1.60+2.60+2.60+4.20 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	1.8+2.5+3.5+3.5	11.3	1.20+1.80+2.50+2.50 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	1.70+2.70+3.30+3.30 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	2.5+2.5+2.5+2.5	10.0	2.00+2.00+2.00+2.00 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	2.75+2.75+2.75+2.75 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
	2.5+2.5+2.5+3.5	11.0	1.85+1.85+1.85+2.45 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	2.50+2.50+2.50+3.50 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18
2.5+2.5+3.5+3.5	12.0	1.70+1.70+2.30+2.30 (3.00-9.20)	8.0	2650 (650-3200)	11.6	3.02	2.30+2.30+3.20+3.20 (3.00-12.40)	11.0	2630 (620-3630)	11.6	4.18	

## RAS/RAC Technical Description

Hitachi's R410A All DC Inverter Ranges elevate air conditioning to a new level, incorporating significant advances in electronics technology.

With cooling and heating capacities from 2.0Kw to 8.0Kw, the all DC Inverter PAM driven mono split SUMMIT range incorporates the R410a refrigerant, Hitachi DC Scroll, or DC Twin Rotary compressor all working together for high performance and ultimate efficiency.

- DC inverter PAM control
- Highest COP up to 4.46 (A) in cooling/4.42 (A) in heating
- Low noise down to 20dBA on sleep mode
- Cooling available under -10°C ambient temperature
- Heating available under -15°C ambient temperature
- Auto restart by previous mode and Auto changeover
- Washable carbon and anti-bacteria air purifying filter
- 24hr remote controller timer
- R410A refrigerant

# Summit



## General Data

		Indoor Outdoor	RAS-18YH5 RAC-18YH5	RAS-25YH5 RAC-25YH5	RAS-35YH5 RAC-35YH5	RAS-50YH5 RAC-50YH5	RAS-60YH5 RAC-60YH5	RAS-70YH5 RAC-70YH5	RAS-80YH5 RAC-80YH5
<b>Model</b>									
<b>Power Supply</b>						AC 1Ph 220-230V 50Hz			
<b>Nominal (min-max) Cooling Capacity</b>	KW	2.0(0.9-2.5)	2.5(0.9-3.1)	3.5(0.9-4.0)	5.0(0.9-5.2)	6.05(0.9-6.5)	7.0(0.9-8.0)	8.0(1.5-8.5)	
<b>Nominal (min- max) Heating Capacity</b>	KW	2.5(0.9-3.2)	3.4(0.9-4.4)	4.2(0.9-5.0)	6.5(0.9-8.1)	7.05(0.9-9.0)	8.2(0.9-9.5)	9.3(1.5-9.7)	
<b>Total Input</b>									
Cooling	W	550(155-1010)	580(155-1080)	980(155-1300)	1780(155-2200)	2300(155-2500)	2670(200-2920)	3070(200-3850)	
Heating	W	580(115-970)	790(115-1120)	1010(115-1300)	1970(115-2200)	2400(115-2700)	2770(200-3250)	3100(200-3850)	
<b>Total Current</b>									
Cooling	A	2.95-2.81	3.11-2.97	4.69-4.49	8.17-7.80	10.60-10.10	12.30-11.70	14.10-13.50	
Heating	A	2.93-2.81	3.99-3.82	4.84-4.63	9.05-8.65	11.00-10.50	12.70-12.20	14.30-13.60	
<b>EER/COP</b>									
Cooling		3.64	4.31	3.57	2.81	2.63	2.62	2.61	
Heating		4.31	4.30	4.16	3.30	2.94	2.96	3.00	
<b>Sound Pressure Level (Overall Scale)</b>									
Cooling	dBa	35/32/26/20	38/32/26/20	41/35/29/25	47/39/31/27	47/42/33/28	48/42/33/30	46/43/40/36	
Heating	dBa	36/33/27/23	39/33/27/23	41/35/30/26	47/39/31/27	47/42/34/33	49/42/34/33	47/44/41/39	
<b>Condenser Sound Pressure Level</b>									
Cooling	dBa	44	45	46	50	50	52	55	
Heating	dBa	46	46	47	52	53	54	57	
<b>Indoor Outer Dimensions (Net/ Carton)</b>									
Height	mm	280(254)	280(254)	280(254)	280(254)	295(271)	295(271)	333(293)	
Width	mm	780(826)	780(826)	780(826)	780(826)	1030(1100)	1030(1100)	1150(1193)	
Depth	mm	210(325)	210(325)	210(325)	210(325)	191(368)	191(368)	245(388)	
Weight	Kg	9.5(11)	9.5(11)	9.5(11)	9.5(11)	11(13)	12(14)	15(18)	
<b>Condenser Outer Dimensions (Net/Carton)</b>									
Height	mm	548(591)	548(591)	548(591)	650(698)	650(698)	800(848)	875(896)	
Width	mm	750(871)	750(871)	750(871)	850(1008)	850(1008)	850(1008)	925(1037)	
Depth	mm	288(377)	288(377)	288(377)	298(394)	298(394)	298(394)	315(417)	
Weight	Kg	35(38)	35(38)	35(38)	45(50)	45(50)	52(57)	75(87)	
<b>Cabinet Colour (Munsell Code)</b>		Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	
<b>Refrigerant</b>		R410A	R410A	R410A	R410A	R410A	R410A	R410A	
<b>Flow Control</b>		Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	
<b>Compressor</b>									
Type x Qty		DC Rotary x1	DC Scroll x1	DC Scroll x1	DC Twin Rotary x1	DC Twin Rotary x1	DC Twin Rotary x1	DC Twin Rotary x1	
<b>Indoor Fan</b>									
Type		DC 35V	DC 35V	DC 35V	DC 35V	DC 35V	DC 320V	DC 320V	
Air Flow Rate Cooling	m3/min	7.3/6.7/5.8	8.5/7.0/6.0	10.1/8.0/6.5	13.5/10.0/6.8	13.5/12.5/11.3	14.0/12.5/11.3	19.0/16.5/13.5	
Air Flow Rate Heating	m3/min	8.0/7.0/5.8	9.5/8.0/7.0	10.8/8.5/7.5	13.5/10.0/6.8	13.5/12.5/11.3	14.0/12.5/11.3	19.0/16.5/13.5	
<b>Condenser Fan</b>									
Type		DC350V	DC350V	DC350V	DC 360V	DC 360V	DC 380V	DC 380V	
Air Flow Rate Cooling/Heating	m3/min	24/23	31/27	32/27	36/36	36/36	47/47	55/55	
<b>Usable Outdoor Temperature</b>									
Cooling	—	-10-43	-10-43	-10-43	-10-43	-10-43	-10-43	-10-43	
Heating	—	-15-21	-15-21	-15-21	-15-21	-15-21	-15-21	-15-21	
<b>Refrigerant Piping</b>									
Liquid Line	mm (in)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35(1/4)	6.35(1/4)	6.35(1/4)	
Gas Line	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	12.7 (1/2)	12.7(1/2)	15.8(5/8)	15.88(5/8)	
<b>Pipe Run</b>									
Max Pipe Length (Chargeless)	m	20	20	20	20	30	30	30	
Individual Pipe Length	m	—	—	—	—	—	—	—	
Max Pipe Lift	m	10	10	10	10	10	10	10	
<b>Interconnection Wires</b>	pcs	3	3	3	3	3	5	5	
<b>Starting current</b>	A	2.8	3.7	4.5	10.0	10.0	12.3	14.0	
<b>Recommended Fuse Size</b>	A	16	16	16	16	16	20	30	
<b>Auto Restart by Previous Mode</b>		Yes	Yes	Yes	Yes	Yes	Yes	Yes	
<b>Auto Changeover</b>		Yes	Yes	Yes	Yes	Yes	Yes	Yes	
<b>LED Self Diagnosis</b>		Yes	Yes	Yes	Yes	Yes	Yes	Yes	
<b>Air Purifying Filter Type</b>		SPX-CFH11	SPX-CFH11	SPX-CFH11	SPX-CFH11	SPX-CFH5	SPX-CFH5	SPX-CFH13	
<b>Anti-bacterial Tangential Fan</b>		Yes	Yes	Yes	Yes	Yes	Yes	Yes	
<b>Remote Control Timer</b>	Hr	24	24	24	24	24	24	24	

## RAS/RAC Technical Description

- Energy label A class COP
- Low noise down to 23dBA on sleep mode
- Heating available under -10°C ambient temperature
- Auto restart by previous mode
- Washable carbon and anti-bacteria air purifying filter
- 24hr remote control timer
- R410A refrigerant

# Bigflow

The Hitachi R410A mono split system offers a cost effective and efficient solution to climate control in one zone. With cooling only and heat pump models available and with their compact design, reliability and high efficiency, this range is suited to a wide variation of applications.



## General Data

Model	Indoor Outdoor	RAS-07G4 RAC-07G4	RAS-09G4 RAC-09G4	RAS-14GH4 RAC-14GH4	RAS-18GH4 RAC-18GH4	RAS-24GH4 RAC-24GH4
<b>Power Supply</b>		AC 1Ph 220-240V 50Hz				
<b>Nominal (min-max) Cooling Capacity</b>	KW	2.1	2.9	3.5	5.1	6.5
<b>Nominal (min-max) Heating Capacity</b>	KW	2.2	3.0	3.85	5.75	7.6
<b>Total Input</b>						
Cooling	W	610	900	1090	1580	2490
Heating	W	510	770	1000	1680	2660
<b>Total Current</b>						
Cooling	A	2.8	4.1	5.0	7.23	11.4
Heating	A	2.3	4.5	4.6	7.61	12.0
<b>EER/COP</b>						
Cooling		3.44	3.22	3.21	3.23	2.61
Heating		4.31	3.90	3.85	3.42	2.86
<b>Sound Pressure Level (Overall Scale)</b>						
Cooling	dBA	36/30/25/23	38/35/28/24	41/36/31/27	45/42/39/36	45/42/40/38
Heating	dBA	36/32/28/28	39/34/31/31	42/37/34/34	45/39/36/36	45/42/40/40
<b>Condenser Sound Pressure Level</b>						
Cooling	dBA	45	48	49	50	54
Heating	dBA	46	49	50	52	54
<b>Indoor Outer Dimensions (Net/ Carton)</b>						
Height	mm	280(330)	280(330)	280(330)	295(271)	295(271)
Width	mm	780(830)	780(830)	780(830)	1030(1100)	1030(1100)
Depth	mm	210(250)	210(250)	210(250)	183(368)	183(368)
Weight	Kg	9(11)	9(11)	9(11)	12(14)	12(14)
<b>Condenser Outer Dimensions (Net/Carton)</b>						
Height	mm	570(640)	570(640)	570(633)	650(698)	650(698)
Width	mm	700(810)	700(810)	750(905)	850(1008)	850(1008)
Depth	mm	210(298)	210(298)	280(394)	298(394)	298(394)
Weight	Kg	32(35)	32(35)	38(43)	50(53)	55(60)
<b>Cabinet Colour (Munsell Code)</b>		Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)	Beige(5Y 7/2)
<b>Refrigerant</b>		R410A	R410A	R410A	R410A	R410A
Flow Control		Capillary	Capillary	Capillary	Capillary	Capillary
<b>Compressor</b>						
Type x Qty		AC Rotary x 1	AC Rotary x 1	AC Rotary x 1	AC Rotary x 1	AC Rotary x 1
<b>Indoor Fan</b>						
Type		DC35V	DC 35V	DC 35V	DC 35V	DC 35V
Air Flow Rate Cooling	m³/min	8.0/6.5/5.0	9.0/7.5/6.0	10.0/8.5/7.0	13.5/12.5/11.3	13.5/12.5/11.3
Air Flow Rate Heating	m³/min	8.0/6.5/5.0	9.0/7.5/6.0	10.0/8.5/7.0	13.5/12.5/11.3	13.5/12.5/11.3
<b>Condenser Fan</b>						
Type		AC 220-240V	AC 220-240V	AC 220-240V	AC 220-240V	AC 220-240V
Air Flow Rate Cooling/Heating	m³/min	24/24	24/24	27/27	36/36	36/36
<b>Refrigerant Piping</b>				Flair Nut / Flange Connection		
Liquid Line	mm (in)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)
Gas Line	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	12.7 (1/2)	12.7 (1/2)
<b>Pipe Run</b>						
Max Pipe Length	m	10	10	15	15	15
(Chargeless)	m	10	10	15	8*	8*
Individual Pipe Length	m	10	10	15	15	15
Max Pipe Lift	m	5	5	5	10	10
<b>Interconnection Wires</b>	pcs	5	5	5	5	5
<b>Starting current</b>	A	22.0	22.0	30.0	45.0	67.0
<b>Recommended Fuse Size</b>	A	10	10	15	45	57
<b>Auto Restart by Previous Mode</b>		Yes	Yes	Yes	Yes	Yes
<b>Auto Changeover</b>		No	No	No	No	No
<b>LED Self Diagnosis</b>		Yes	Yes	Yes	Yes	Yes
<b>Air Purifying Filter Type</b>		SPX-CFH11	SPX-CFH11	SPX-CFH11	SPX-CFH5	SPX-CFH5
<b>Anti-bacterial Tangential Fan</b>		Yes	Yes	Yes	-	-
<b>Remote Control Timer</b>	Hr	24	24	24	24	24
		*15g/m or **25 g/m additional charge over 8m				
<b>Model</b>	<b>Indoor Outdoor</b>	<b>RAS-07G4 RAC-07G4</b>	<b>RAS-09G4 RAC-09G4</b>	<b>RAS-14G4 RAC-14G4</b>	<b>RAS-18G4 RAC-18G4</b>	<b>RAS-24G4 RAC-24G4</b>
<b>Interconnection Wires</b>		pcs	3	3	3	3
<b>The Other Features</b>		The same as GH4 models (cooling mode)				

The new addition to the Hitachi room air conditioning products is the Air Exchanger range. As the name suggests, it works to exchange room air with fresh air by a unique two-way Air Exchange system.

It also includes the all DC Inverter PAM control which significantly improves the system's performance and efficiency. As with all our room air conditioning units, the R410a refrigerant is used and the Air Exchanger range utilises the Hitachi twin rotary compressor.

- Two-way Air Exchange
- Self clean function
- DC Inverter PAM control
- Highest COP of this class
- Ultra quiet
- Cooling available under  $-10^{\circ}\text{C}$  ambient temperature
- Heating available under  $-15^{\circ}\text{C}$  ambient temperature
- Auto restart by previous mode and Auto changeover
- Nano Titanium filter and washable carbon and anti bacteria air purifying filter
- 24hr remote control timer
- R410a refrigerant
- Negative Ion Air Refreshment



# Air Exchanger

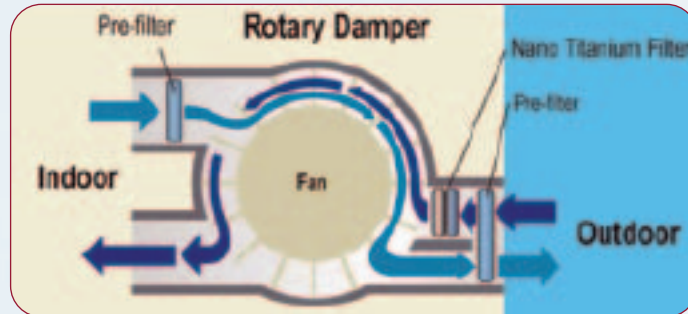


The key features are:

### Two-way Air Exchange

The new air exchanger includes a specially designed rotary damper and air pipe which ensures the effective refresh of the room environment.

This unique function enables the CO<sub>2</sub>, and other pollutants that would not be caught by the normal air purifying function to be exhausted outside of the room and fresh air is then let into the room.

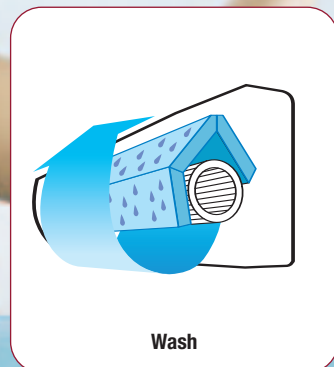


This can be operated by manual selection as and when it is required or set automatically, both of which are controlled from the new handset. If the system is set for automatic exchange, a gas sensor situated in the unit will detect and check the condition of the air regularly and activate the automatic operation when required.

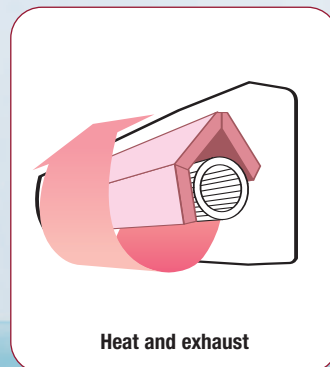
### Self clean function

The new Air Exchanger range has another key benefit as it has a self clean function built in which makes sure the indoor unit is always clean and hence the air quality from the unit is of the highest quality.

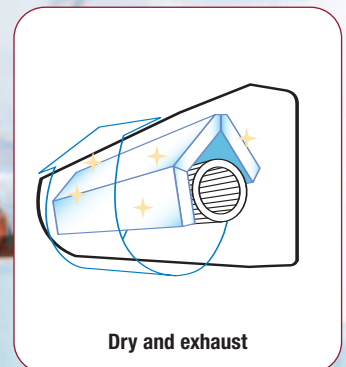
This new self cleaning function can be automatically set from the remote control. After the air conditioning operation has completed the heat exchanger is 'washed' with condensate and the fluid is drained off and then is dried while exhausting air outside.



Wash



Heat and exhaust



Dry and exhaust

## Air Exchanger Technical Description



### Air Quality Nano Titanium Filter

In our new Air Exchange models, the Nano Titanium Filter SPX-NFH1 and SPX-CFH15 are 1000 times smaller than conventional bacterial agents and can therefore catch smaller microbes or bacteria which may escape from other filters leading to higher air quality circulating around the room.



**Manual Air Exchange button**



**Auto Air Exchange button**

### Remote control

The Air Exchanger range comes with a new remote control handset with all the functionality in a new chic design. All the new Air Exchanger functions and operating modes are easily selected from the controller.

### Installation

Again as with most Hitachi room air conditioning units, installation is simple. The Air Exchanger has an air pipe that is open outside of the wall with the refrigerant pipes, and no additional. The units all come with a Ventilation Accessory Kit which includes an air pipe which is 2.5m length, insect net and rain hood. Optional special air pipe cover HC-DS5 is also available.

There is no additional connection of the air pipe between the indoor and outdoor units.

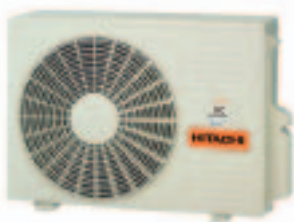
### DC Inverter PAM control

As the pioneer of all 'DC' Inverter PAM driven Room Air Conditioners, our units boast the significant advantage of all DC Inverter PAM driven compressors and fans. Enhanced inverter performance and system performance are achieved by the addition of a 'DC' drive. These advantages include rapid start up and improved performance.

### High COP

These units boast a top AA class COP. This is a major step forward in performance and efficiency.

The Air Exchanger is refreshingly new!!



**HC-DS5**

## General Data

Model	Indoor Outdoor	RAS-25JX5 RAC-25JX5	RAS-35JX5 RAC-35JX5
<b>Power Supply</b>		AC 1Ph 220-230V 50Hz	
<b>Nominal (min-max) Cooling Capacity</b>	KW	2.5(0.9-3.1)	3.5(0.9-4.0)
<b>Nominal (min-max) Heating Capacity</b>	KW	3.4(0.9-4.4)	4.2(0.9-5.0)
<b>Total Input</b>			
Cooling	W	580(155-1160)	990(155-1380)
Heating	W	795(115-1170)	1040(115-1350)
<b>Total Current</b>			
Cooling	A	3.11-2.97	4.74-4.54
Heating	A	4.02-3.85	4.98-4.76
<b>EER/COP</b>			
Cooling		4.31	3.54
Heating		4.28	4.04
<b>Sound Pressure Level (Overall Scale)</b>			
Cooling	dBA	39/34/28/22	43/37/32/25
Heating	dBA	40/35/28/22	44/37/32/26
<b>Condenser Sound Pressure Level</b>			
Cooling	dBA	45	47
Heating	dBA	47	47
<b>Indoor Outer Dimensions (Net/ (Carton)</b>			
Height	mm	298( 284 )	298( 284 )
Width	mm	790( 836 )	790( 836 )
Depth	mm	210( 352 )	210( 352 )
Weight	Kg	10( 12 )	10( 12 )
<b>Condenser Outer Dimensions (Net/(Carton)</b>			
Height	mm	548( 591 )	548( 591 )
Width	mm	750( 871 )	750( 871 )
Depth	mm	288( 377 )	288( 377 )
Weight	Kg	35( 38 )	35( 38 )
<b>Cabinet Colour (Munsell Code)</b>		Beige(5Y 7/2)	Beige(5Y 7/2)
<b>Refrigerant</b>		R410a	R410a
Flow Control		Expansion Valve	Expansion Valve
<b>Compressor</b>			
Type x Qty		Scroll x1	Scrollx1
Motor Output	W		
<b>Indoor Fan</b>			
Type		DC35V	DC35V
Air Flow Rate Cooling	m³/min	8.5/7.0/5.3/3.8	10.0/7.8/5.8/4.7
Air Flow Rate Heating	m³/min	9.5/7.8/5.6/3.8	10.8/8.2/6.5/5.0
<b>Condenser Fan</b>			
Type		DC350V	DC350V
Air Flow Rate Cooling/Heating	m³/min	31/27	32/28
<b>Usable Outdoor Temperature</b>			
Cooling	—	-10-43	-10-43
Heating	—	-15-21	-15-21
<b>Refrigerant Piping</b>		Flair Nut / Flange Connection	
Liquid Line	mm (in)	6.35 (1/4)	6.35 (1/4)
Gas Line	mm (in)	9.52 (3/8)	9.52 (3/8)
<b>Pipe Run</b>			
Max Pipe Length	m	20	20
(Chargeless)	m	20	20
Individual Pipe Length	m	—	—
Max Pipe Lift	m	10	10
<b>Connection wires</b>	pcs	3	3
<b>Starting current</b>	A	4.10-3.92	5.27-5.04
<b>Recommended Fuse Size</b>	A	16	16
<b>Auto Restart by Previous Mode</b>		Yes	Yes
<b>Auto Changeover</b>		Yes	Yes
<b>LED Self Diagnosis</b>		Yes	Yes
<b>Air Purifying Filter Type</b>		SPX-NFH1 and SPX-CFH15	SPX-NFH1 and SPX-CFH15
<b>Remote Control Timer</b>	Hr	24	24
<b>Pipe Cover Type</b>		HC-DS5	HC-DS5

### NOTES:

#### Cooling Operation Conditions

Indoor Air Inlet Temperature: 27 °C DB  
19 °C WB  
Outdoor Air Inlet Temperature: 35 °C DB

**Piping Length:** 7.5 meters

**Piping Lift:** 0 meters

#### Heating Operation Conditions

Indoor Air Inlet Temperature: 20 °C DB  
Outdoor Air Inlet Temperature: 7 °C DB  
6 °C WB

#### Sound Pressure Level

##### Measurement Distance:

1m from discharge grille. 0.8m  
beneath the unit's height centre  
1m from suction/discharge grille.  
Approx. 1m from floor level

\*SPX-NFH1 Nano Titanium Filter for fresh air in  
SPX-CFH15 Nano Titanium Air Purifying Filter for air circulation



Specifications in this catalogue are subject to change without notice in order that HITACHI may bring the latest innovations to their customers. Omitting typing errors.

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