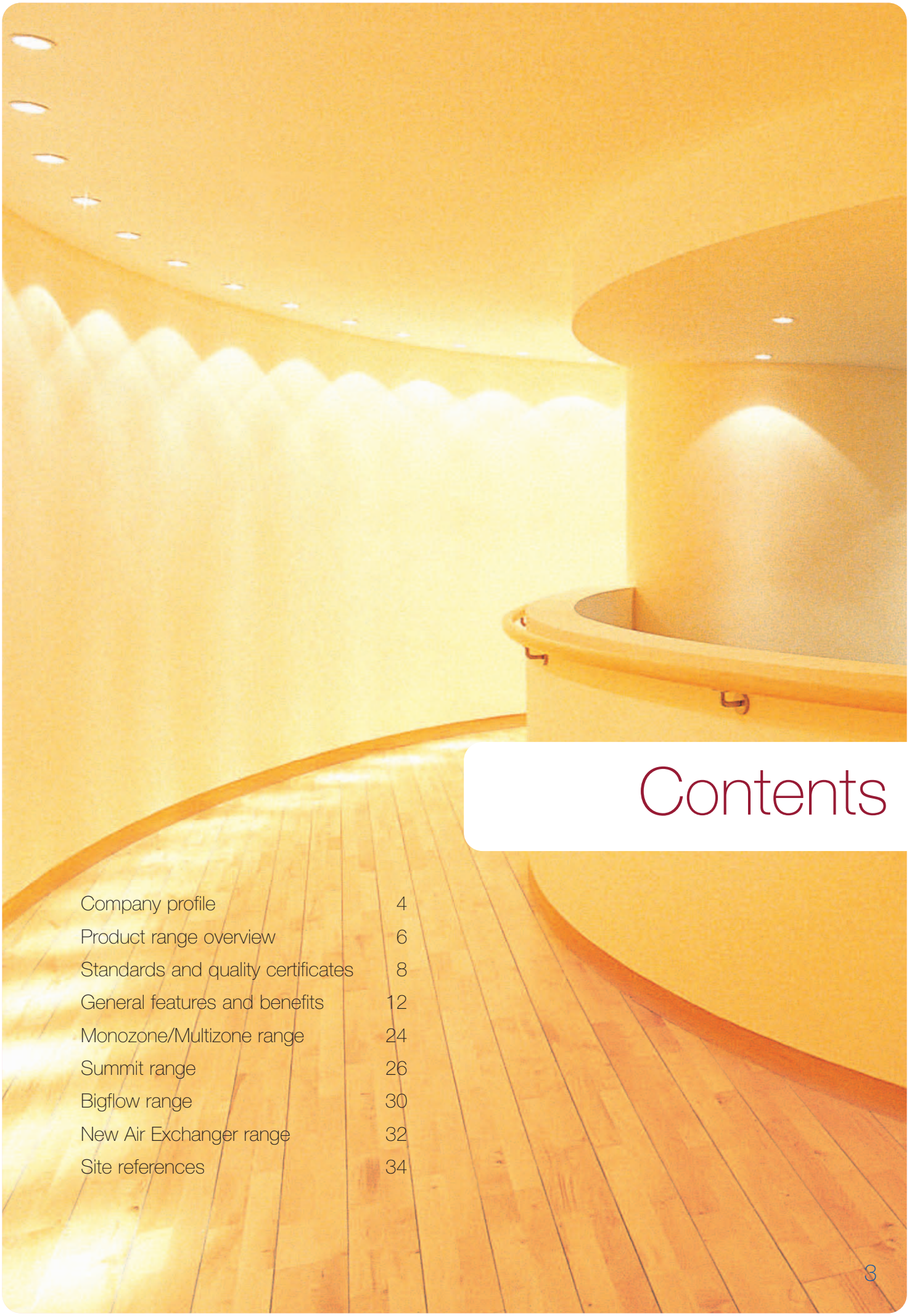
ROOM AIR CONDITIONERS

room air conditioners

Models

Monozone/Multizone (NH4/QH4)
Summit (YH4)
Big Flow (GH4/G4)
New Air Exchanger (JX4)

HITACHI
Inspire the Next



Contents

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

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 revolutionized air conditioning worldwide.

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_2 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
- 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

MONO MULTI ZONE

	Capacity Range [kw]				
	2.5	3.5	4.0	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	8.5	9..0	11.0	12.0
Monozone*	●	●	●	●					
Multizone**					●	●	●	●	●

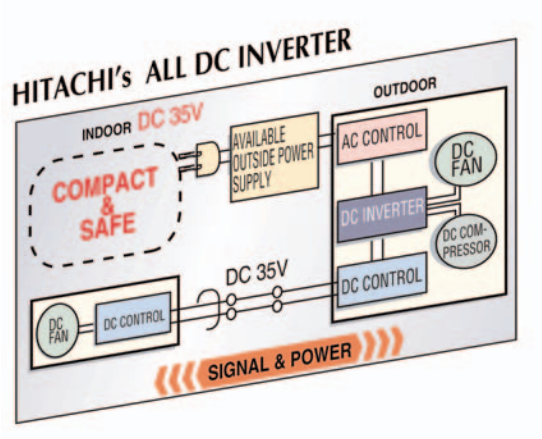
* Nominal cooling capacities
** Maximum indoor combination nominal cooling capacities

All DC Inverter PAM Mono Split

	Capacity Range [kw]			
	2.0	2.5	3.5	5.0
Summit	●	●	●	●
Air Exchanger		●	●	

Non Inverter Mono Split

	Capacity Range [kw]				
	2.0	2.9	3.5	5.0	6.5
Big Flow – Heat Pump	●	●	●	●	●
Big Flow – Cooling Only*	●	●	●	●	●



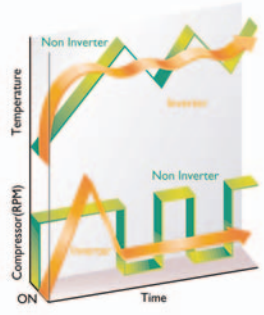
All DC Inverter

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

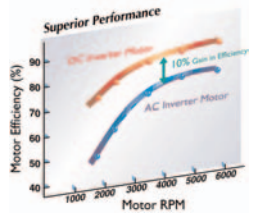
The variable speed compressor (inverter) enables the system to rapidly reach the desired room temperature setting. Once the desired room temperature has been achieved the compressor rotation speed is reduced, saving up to 30% in energy usage (when compared to conventional systems) without compromising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



Rapid Start Up

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%!



Improved Performance

Features and benefits

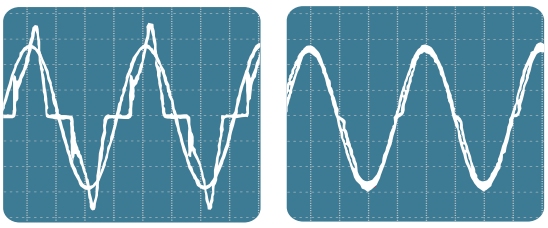
PAM – Minimised loss of performance

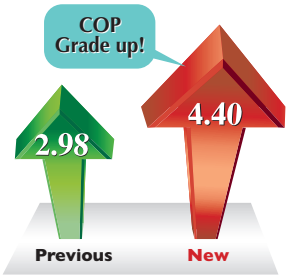
Hitachi's PAM (Power Active Mobule) control system mirrors the current pulse waveform to avoid distortion and therefore achieve almost 100% power factor to enhance power efficiency. This cutting edge device is employed in all Hitachi Mono/Multizone products for your comfort and energy saving for our environment.

High performance heating at -15°C

The Hitachi range of Power Active Module (PAM) inverters ensure the efficient use of input power, and minimises loss to less than 1%.

The PAM range boasts an industry leading COP, more than 4.40, and with an even more impressive heating performance than previously. Indeed even at outdoor temperatures of -15%, the PAM controlled range of inverter split systems continue to provide full capacity heating performance.


Conventional Inverter PAM Inverter



Compressor Technology

Digital DC Scroll Compressor (Multizone)

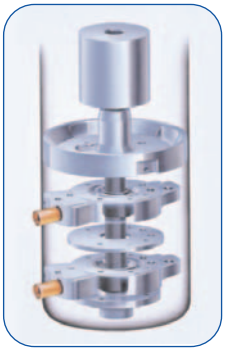
The motor uses digital control to maximise PAM control performance.

- 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 (Monozone and Multizone)

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 cyclinders 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 cyclinder's leading to greater efficiency and lower vibration.



Drawing of cylinder balance

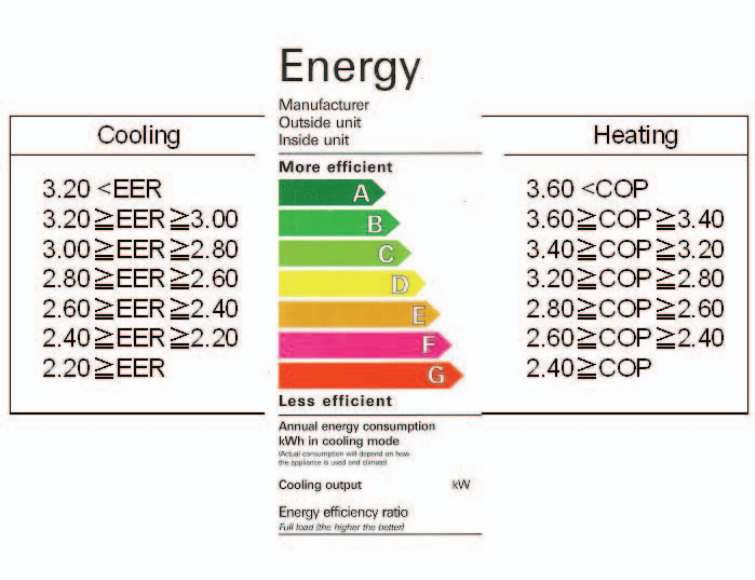
Conventional single-rotary New twin-rotary

Comparison of vibration

Single	Twin
1	1/5

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.

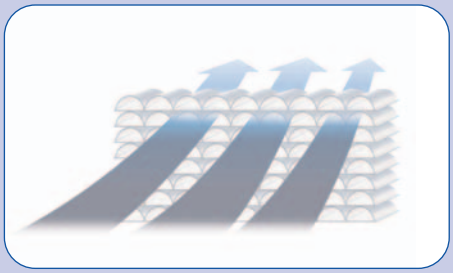


R410a Refrigerant

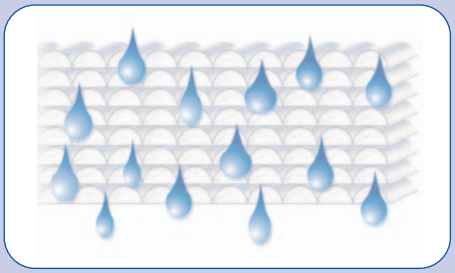
Hitachi is using the new R410a refrigerant in all of its room air conditioning products to ensure its continual environmentally friendly approach as well as the on going development of techniques for saving energy and reducing power consumption.

Air Quality

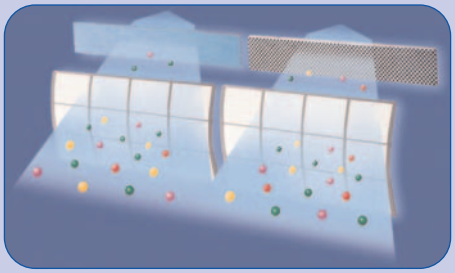
Either the SPX-CFH5 or SPX-CFH11, washable carbon and anti-bacteria air purifying filters are included in all of Hitachi's room air conditioning products. This ensures that the micro dust, pollen particles and odours that can collect on filters can be easily removed. The filters can be washed and reused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



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



Reusable after washing.

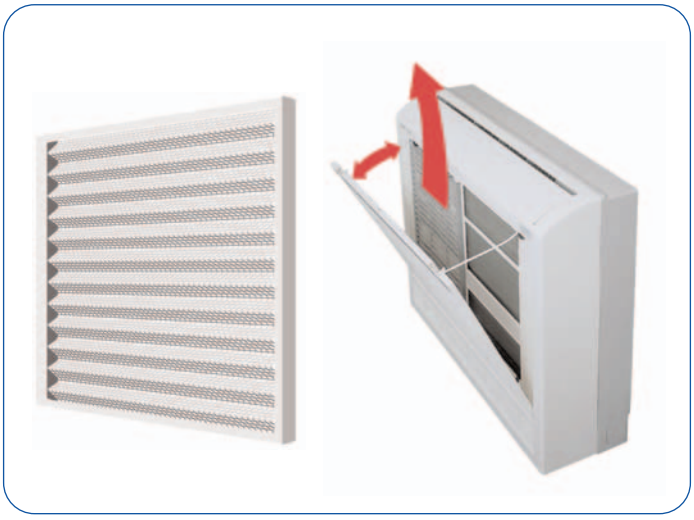


SPX-CH5, SPX-CH11

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 Filter (Air Exchanger range only)

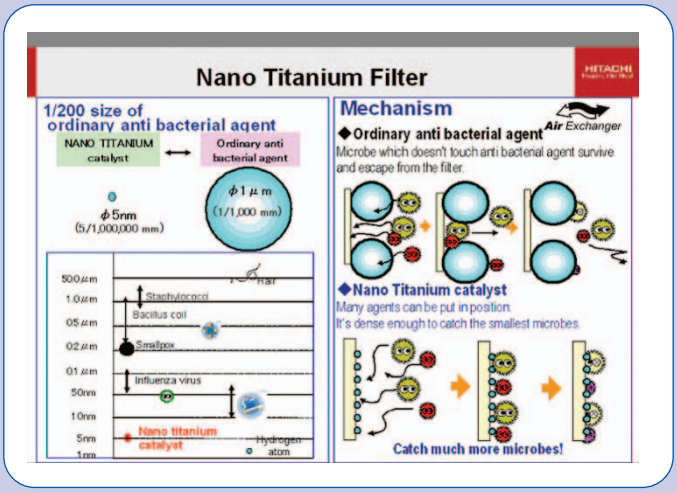
Nano Titanium

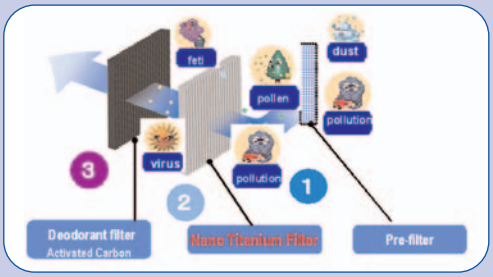
In our new Exchanger models we have introduced the Hitachi state of the art Nano-Titanium Filter which dramatically improves the functions of de-orderization, bacteria elimination and anti-bacterial measures. Titanium Oxide has been used as a photocatalyst for many years but Hitachi have now enhanced 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.





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 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.

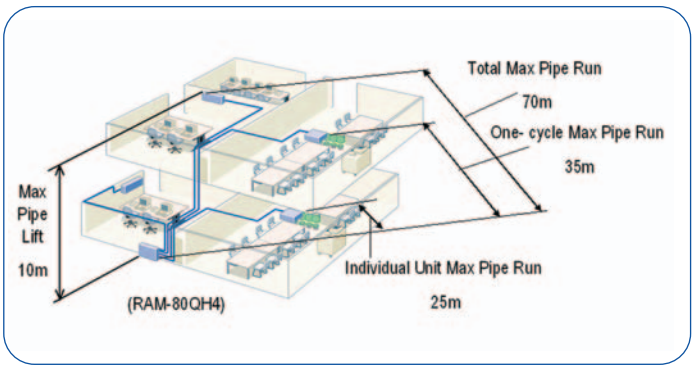
Multizone/Monozone compatible indoor unit range caters for all requirements offering wall mounted, floor standing, 60cm x 60 cm cassettes, and in the ceiling duct units, designed to offer elegance and comfort to any application.

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 7.5Kw to 12.0kw.



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

	1 Room Monozone				2 Room Multizone		3 Room Multizone		4 Room Multizone
Max. nominal capacity of indoor unit combination (kw)	2.5	3.5	5.0	6.0	7.5	8.5	9.0	11.0	12.0
Max chargeless pipe length (m)	20	20	20	30	35	35	45*	60	70
Model range no's	25NH	35NH	50NH	60NH	55QH	60QH	65QH	70QH	80QH

*Chargeless 35mm

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
- Heating available under -15ºC ambient temperature
- Auto restart by previous mode and Auto changeover
- Washable carbon and anti-bacteria air purifying filter
- 24hr remote control timer
- R410a refrigerant

Wall mounted

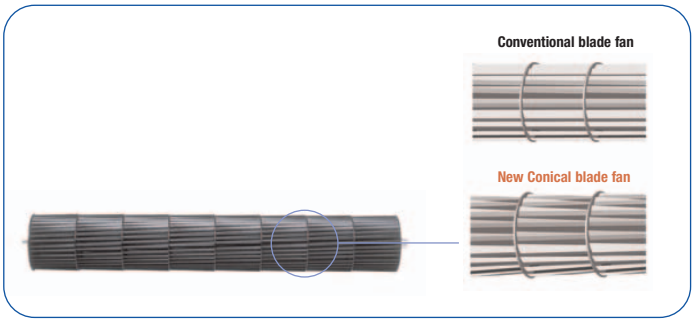
Powerful

A bigger 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,



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

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.

General Data

Model		RAK-25NH4	RAK-35NH4	RAK-50NH4	RAK-60NH4
Power Supply		DC 35V	DC 35V	DC 35V	DC 35V
Nominal Cooling Capacity (min-max)	KW	2.5(0.9-3.0)	3.5(0.9-4.0)	5.0(0.9-5.2)	6.3(0.9-6.5)
Nominal Heating Capacity (min-max)	KW	3.5(0.9-5.0)	4.8(0.9-6.6)	6.7(0.9-8.1)	7.3(0.9-9.8)
Sound Pressure Level (Overall scale)					
Cooling	dBA	39/32/26/23	42/37/27/26	47/39/28/24	48/42/33/27
Heating	dBA	40/36/32/26	42/39/36/26	47/39/34/27	48/42/33/33
Outer Dimensions (Net/(Carton))					
Height	mm	285(338)	285(338)	285(338)	295(271)
Width	mm	860(888)	860(888)	860(888)	1030(1100)
Depth	mm	183(279)	183(279)	183(279)	183(368)
Net Weight	kg	9(12)	9(12)	9(12)	12(17)
Refrigerant		R410a	R410a	R410a	R410a
Flow Control		–	–	–	√–
Indoor Fan					
Air Flow Rate Cooling	m^3/min	8.0/7.3/6.4	10.5/9.7/7.8	13.5/12.5/11.3	13.5/12.5/11.3
Air Flow Rate Heating	m^3/min	8.0/7.3/6.4	10.5/9.7/7.8	13.5/12.5/11.3	13.5/12.5/11.3
Refrigerant Piping					
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)
Interconnection Wires	pcs	3	3	3	3
Auto Restart by Previous Mode		Yes	Yes	Yes	Yes
Auto Changeover		Yes	Yes	Yes	Yes
LED Self Diagnosis		Yes	Yes	Yes	Yes
Air Purifying Filter Type		SPX-CFH5	SPX-CFH5	SPX-CFH5	SPX-CFH5
Remote Control Timer	Hr	24	24	24	24

Refer to combination tables for more information

NOTES:

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27 ℃ DB
19 ℃ WB
Outdoor Air Inlet Temperature: 35 ℃ DB

Heating Capacity Conditions
Indoor Air Inlet Temperature: 20 ℃ DB
Outdoor Air Inlet Temperature: 7 ℃ DB
6 ℃ 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

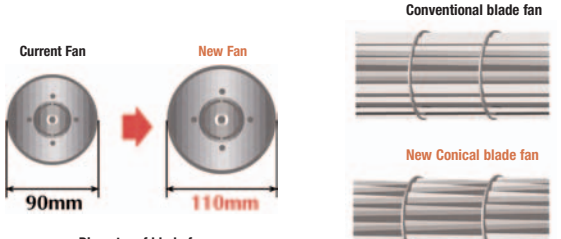
The air flow from the upper and lower outlets enables the whole room to be heated evenly, from the floor to the ceiling.

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

Floor mounted

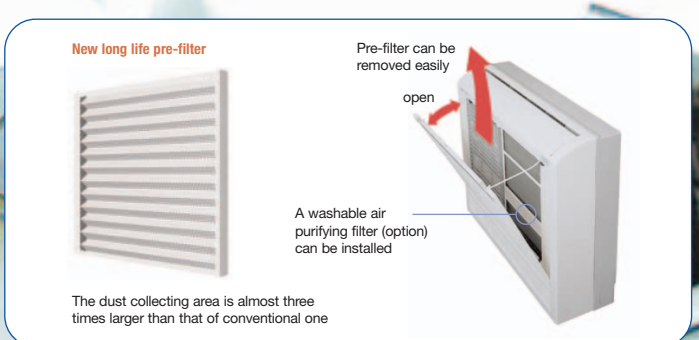
High performance

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-25NH4	RAF-50NH4
Power Supply		DC 35V	DC 35V
Nominal Cooling Capacity (min-max)	KW	2.5(0.9-3.0)	5.0(0.9-5.2)
Nominal Heating Capacity (min-max)	KW	3.9(0.9-5.0)	6.7(0.9-8.1)
Sound Pressure Level (Overall scale)			
Cooling	dBA	35/31/26/23	44/37/32/24
Heating	dBA	35/31/26/25	44/39/34/31
Outer Dimensions (Net/(Carton))			
Height	mm	600(656)	600(656)
Width	mm	750(797)	750(797)
Depth	mm	215(278)	215(278)
Net Weight	kg	15(17)	15(17)
Refrigerant		R410a	R410a
Flow Control		–	–
Indoor Fan			
Air Flow Rate Cooling	m^3/min	7.4/6.5/5.5	10.3/8.5/6.0
Air Flow Rate Heating	m^3/min	8.5/7.0/5.5	12.3/10.0/7.5
Refrigerant Piping			
Liquid Line	mm(in.)	6.35 (1/4)	6.35 (1/4)
Gas Line	mm(in.)	9.52 (3/8)	12.7 (1/2)
Interconnection Wires	pcs	3	3
Auto Restart by Previous Mode		Yes	Yes
Auto Changeover		Yes	Yes
LED Self Diagnosis		Yes	Yes
Air Purifying Filter Type		(SPX-CFH5)*	(SPX-CFH5)*
Remote Control Timer	Hr	24	24

(*Not included)

Refer to combination tables for more information

NOTES:

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27 ℃ DB
19 ℃ WB
Outdoor Air Inlet Temperature: 35 ℃ DB

Heating Operation Conditions
Indoor Air Inlet Temperature: 20 ℃ DB
Outdoor Air Inlet Temperature: 7 ℃ DB
6 ℃ 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

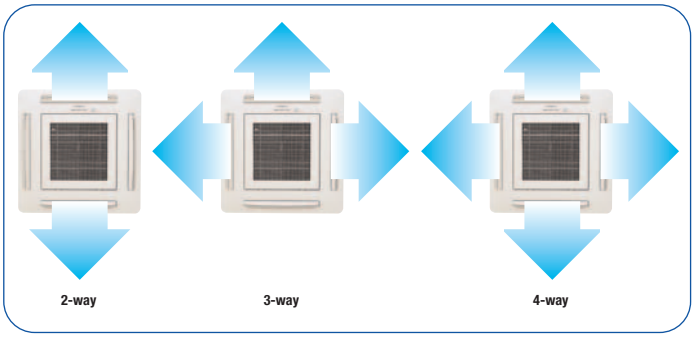
With it's the compact design the 60cm x 60cm ceiling unit neatly fits inside a standard ceiling module which minimises the installation work.

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-25NH4	RAI-40NH4	RAI-ECPM
Power Supply		DC 35V	DC 35V	DC 35V
Nominal Cooling Capacity (min-max)	KW	2.5(0.9-3.0)	4.0(0.9-4.5)	–
Nominal Heating Capacity (min-max)	KW	3.5(0.9-5.0)	5.2(0.9-5.8)	–
Sound Pressure Level (Overall scale)				
Cooling	dBA	35/32/29/25	39/34/29/28	–
Heating	dBA	36/33/30/27	40/38/32/29	–
Outer Dimensions (Net/(Carton))				
Height	mm	285(395)	285(395)	650(710)
Width	mm	580(760)	580(760)	650(710)
Depth	mm	580(706)	580(706)	32(124)
Net Weight	kg	20(26)	20(26)	4(5)
Refrigerant		R410a	R410a	–
Flow Control		–	–	–
Indoor Fan				
Air Flow Rate Cooling	m^3/min	8.5/7.0/5.8	10.8/8.0/5.8	–
Air Flow Rate Heating	m^3/min	8.5/7.0/5.8	10.8/8.0/5.8	–
Refrigerant Piping				
Liquid Line	mm(in.)	6.35 (1/4)	6.35 (1/4)	–
Gas Line	mm(in.)	9.52 (3/8)	9.52 (3/8)	–
Interconnection Wires	pcs	3	3	3
Auto Restart by Previous Mode		Yes	Yes	Yes
Auto Changeover		Yes	Yes	Yes
LED Self Diagnosis		Yes	Yes	Yes
Air Purifying Filter Type		–	–	(SPX-CFH5)*
Remote Control Timer	Hr	24	24	–

(*Not included)

Refer to combination tables for more information

NOTES:

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27 ℃ DB
19 ℃ WB
Outdoor Air Inlet Temperature: 35 ℃ DB

Heating Operation Conditions
Indoor Air Inlet Temperature: 20 ℃ DB
Outdoor Air Inlet Temperature: 7 ℃ DB
6 ℃ WB

Piping Length: 7.5 meters
Piping Lift: 0 meters

Sound Pressure Level Measurement Distance:
1.4m from beneath the unit

Indoor Unit

RAD Technical Description

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.

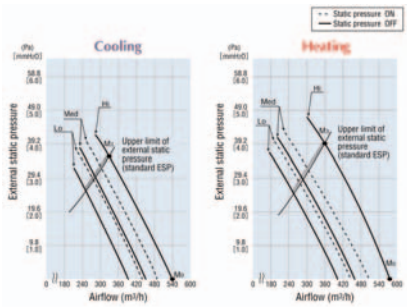
Static pressure & airflow

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-25NH4

Measuring conditions: **M3** = In case the duct is 4m long **M0** = For single indoor unit

RAD-40NH4

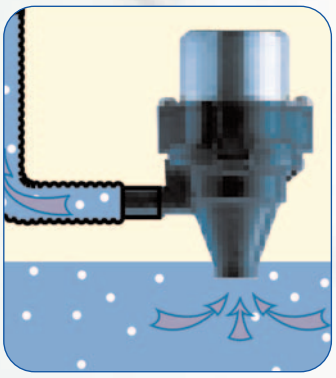


Measuring conditions: **M3** = In case the duct is 4m long **M0** = For single indoor unit

In the ceiling

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.



General Data

Model		RAD-25NH4	RAD-40NH4
Power Supply		DC 35V	DC 35V
Nominal Cooling Capacity (min-max)	KW	2.5(1.0-3.0)	4.0(1.0-4.5)
Nominal Heating Capacity (min-max)	KW	3.8(1.1-4.8)	5.2(1.1-5.8)
Sound Pressure Level (Overall scale)			
Cooling	dBA	40/34/31/29	43/35/32/30
Heating	dBA	41/39/37/30	43/40/37/30
Outer Dimensions (Net/(Carton))			
Height	mm	235(306)	235(306)
Width	mm	750(806)	750(806)
Depth	mm	400(594)	400(594)
Net Weight	kg	19(23)	19(23)
Refrigerant		R410a	R410a
Flow Control		–	–
Indoor Fan			
Air Flow Rate Cooling	m^3/min	8.7/6.2/5.5/4.8	9.0/7.7/6.7/6.3
Air Flow Rate Heating	m^3/min	9.0/7.8/6.8/5.0	9.5/7.7/6.8/6.3
Refrigerant Piping			
Liquid Line	mm(in.)	6.35 (1/4)	6.35 (1/4)
Gas Line	mm(in.)	9.52 (3/8)	9.52 (3/8)
Interconnection Wires	pcs	3	3
Auto Restart by Previous Mode		Yes	Yes
Auto Changeover		Yes	Yes
LED Self Diagnosis		Yes	Yes
Air Purifying Filter Type		–	–
Remote Control Timer	Hr	24	24

Refer to combination tables for more information

NOTES:

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27 ℃ DB
19 ℃ WB
Outdoor Air Inlet Temperature: 35 ℃ DB

Heating Operation Conditions
Indoor Air Inlet Temperature: 20 ℃ DB
Outdoor Air Inlet Temperature: 7 ℃ DB
6 ℃ WB

Piping Length: 7.5 meters
Piping Lift: 0 meters

Sound Pressure Level Measurement Distance:
1.4 m beneath the unit

Technical Description – Monozone Outdoor Units

Monozone outdoor unit

Monozone outdoor unit

General Data

Model		RAC-25NH4	RAC-35NH4	RAC-50NH4	RAC - 60NH4
Power Supply		AC 1Ph 220-240V 50Hz			
Nominal Cooling Capacity (min-max)	KW	2.5(0.9-3.0)	3.5(0.9-4.0)	5.0(0.9-5.2)	6.3(0.9-6.5)
Nominal Heating Capacity (min-max)	KW	3.5(0.9-5.0)	4.8(0.9-6.6)	6.5(0.9-8.1)	7.3(0.9-9.8)
Sound Pressure Level (Overall scale)					
Cooling	dBA	46	47	50	50
Heating	dBA	46	49	52	52
Outer Dimensions (Net/(Carton))					
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)
Net Weight	kg	38(43)	38(43)	50(55)	45(55)
Cabinet Colour (Munsell Code)		Beige (2.5Y 8.2)	Beige (2.5Y 8.2)	Beige (2.5Y 8.2)	Beige (2.5Y 8.2)
Refrigerant		R410a	R410a	R410a	R410a
Flow Control		Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve
Compressor					
Type		DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
Quantity	set	1	1	1	1
Condenser Fan					
Type		DC360V	DC360V	DC360V	DC360V
Air Flow Rate Cooling/Heating	m^3/min	27/27	27/27	36/36	36/36
Refrigerant Piping		Flair Nut/Flange Connection			
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)
Pipe Run					
Max Pipe Length	m	20	20	20	30
(Changeless)	m	20	20	20	30
Individual Pipe Length	m	20	20	20	30
Max Pipe Lift	m	5	5	5	5
Starting Current	A	4.2	4.2	10.0	10.0
Recommended Fuse Size	A	16	16	16	16
Interconnection Wires	pcs	3	3	3	3
LED Self Diagnosis		Yes	Yes	Yes	Yes

Refer to combination tables for more information

NOTES:

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27 ℃ DB, 19 ℃ WB
Outdoor Air Inlet Temperature: 35 ℃ DB

Heating Operation Conditions
Indoor Air Inlet Temperature: 20 ℃ DB
Outdoor Air Inlet Temperature: 7 ℃ DB, 6 ℃ 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

Technical Description – Multizone Outdoor Unit

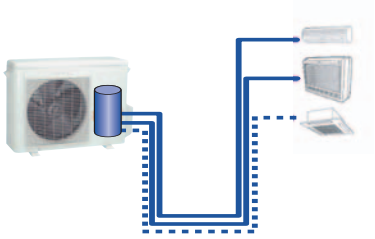
General Data

Model		RAM-55QH4 DUAL	RAM-60QH4 DUAL	RAM-65QH4 TRIPLE
Power Supply			AC 1Ph 220-240V 50Hz	
Nominal Cooling Capacity (min-max)	KW	5.4(1.5-5.9)	6.0(1.5-6.6)	6.3(1.5-6.6)
Nominal Heating Capacity (min-max)	KW	7.2(1.5-7.2)	7.5(1.5-8.3)	7.2(1.5-7.2)
Sound Pressure Level (Overall scale)				
Cooling	dBA	52	42	52
Heating	dBA	53	46	53
Outer Dimensions (Net/(Carton))				
Height	mm	650(698)	600(654)	650(698)
Width	mm	850(1008)	792(955)	850(1008)
Depth	mm	298(394)	299(394)	298(394)
Net Weight	kg	50(55)	46(49)	50(55)
Cabinet Colour (Munsell Code)		Beige (2.5Y 8.2)	Beige (2.5Y 7.2)	Beige (2.5Y 8.2)
Refrigerant		R410a	R410a	R410a
Flow Control		Expansion Valve	Expansion Valve	Expansion Valve
Compressor				
Type		DC Twin Rotary	DC Scroll	DC Twin Rotary
Quantity	set	1	1	1
Condenser Fan				
Type		DC140/330V	DC140/330V	DC140/330V
Air Flow Rate Cooling/Heating	m^3/min	36/36	36/39	36/36
Refrigerant Piping			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
Pipe Run				
Max Pipe Length	m	35	35	45
(Changeless)	m	35	35	35*
Individual Pipe Length	m	35	25	45
Max Pipe Lift	m	10	10	10
Starting Current	A	10	9.1	10
Recommended Fuse Size	A	16	16	16
Interconnection Wires	pcs	3	3	3
LED Self Diagnosis		Yes	Yes	Yes

*20g/m additional charge over 35m

Refer to combination tables for more information

Multizone outdoor unit



NOTES:

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27 ℃ DB / 19 ℃ WB
Outdoor Air Inlet Temperature: 35 ℃ DB

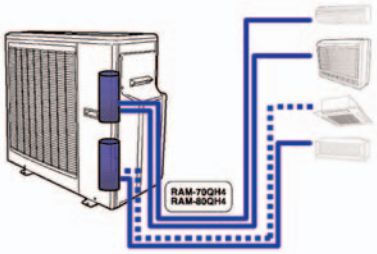
Heating Operation Conditions
Indoor Air Inlet Temperature: 20 ℃ DB
Outdoor Air Inlet Temperature: 7 ℃ DB / 6 ℃ WB

Piping Length: 7.5 meters
Piping Lift: 0 meters

Sound Pressure Level Measurement Distance:
1m from suction/discharge grille
Approx. 1m from floor level

Technical Description – Multizone Outdoor Unit

Multizone outdoor unit



triple
quadriple

General Data

Model		RAM-70QH4 Triple	RAM-80QH4 Quadruple
Power Supply		AC 1Ph 220-240V 50Hz	
Nominal Cooling Capacity (min-max)	KW	7.0(3.0-7.9)	8.0(3.0-9.2)
Nominal Heating Capacity (min-max)	KW	9.6(3.0-10.6)	11.0(3.0-12.4)
Sound Pressure Level (Overall scale)			
Cooling	dBA	43	43
Heating	dBA	43	43
Outer Dimensions (Net/(Carton))			
Height	mm	830(880)	830(880)
Width	mm	850(997)	850(997)
Depth	mm	340(430)	340(430)
Net Weight	kg	77(81)	79(83)
Cabinet Colour (Munsell Code)		Beige (5Y 7/2)	Beige (5Y 7/2)
Refrigerant		R410a	R410a
Flow Control		Expansion Valve	Expansion Valve
Compressor			
Type		DC Scroll	DC Scroll
Quantity	set	2	2
Condenser Fan			
Type		DC300V	DC300V
Air Flow Rate Cooling/heating	m^3/min	34/49	43/49
Refrigerant Piping		Flair Nut/Flange Connection	
Liquid Line	mm(in.)	6.35 (1/4) x 3	6.35 (1/4) x 4
Gas Line	mm(in.)	9.52 (3/8) x 3	9.52 (3/8) x 4
Pipe Run			
Max Pipe Length	m	35+25	35+35
(Changeless)	m	35+25	35+35
Individual Pipe Length	m	25	25
Max Pipe Lift	m	10	10
Starting Current	A	14.1	14.5
Recommended Fuse Size	A	16	16
Interconnection Wires	pcs	3	3
LED Self Diagnosis		Yes	Yes

Refer to combination tables for more information

NOTES:

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27 ℃ DB / 19 ℃ WB
Outdoor Air Inlet Temperature: 35 ℃ DB

Heating Operation Conditions
Indoor Air Inlet Temperature: 20 ℃ DB
Outdoor Air Inlet Temperature: 7 ℃ DB / 6 ℃ 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

Monozone/Multizone Combinations

			Mono	Dual		Triple		Quadruple
								
Model			RAC-25NH4 RAC-35NH4 RAC-50NH4 RAC-60NH4	RAM-55QH4	RAM-60QH4	RAM-65QH4	RAM-70QH4	RAM-80QH4
	Combination of Indoor Unit Combination	Total						
One Unit	2.5	2.5	●	●	●	●	●	●
	3.5	3.5	●	●	●	●	●	●
	4.0	4.0	●	●	●	●	●	●
	5.0	5.0	●	●	●	●	●	●
	6.0†	6.0†	●					
*Two Units	2.5 + 2.5	5.0		●	●	●	●	●
	2.5 + 3.5	6.0		●	●	●	●	●
	2.5 + 4.0	6.5		●	●	●	●	●
	2.5 + 5.0	7.5		●	●	●	●	●
	3.5 + 3.5	7.0		●	●	●	●	●
	3.5 + 4.0	7.5		●	●	●	●	●
	6.5 + 5.0	8.5			●	●	●	●
	4.0 + 4.0	8.0			●	●	●	●
	4.0 + 5.0	9.0				●	●	●
	5.5 + 5.0	10.0						●
**Two Units	2.5 + 2.5	5.0					●	●
	2.5 + 3.5	6.0					●	●
	2.5 + 4.0	6.5					●	●
	3.5 + 3.5	7.0					●	●
Three Units	2.5 + 2.5 + 2.5	7.5				●	●	●
	2.5 + 2.5 + 3.5	8.5				●	●	●
	2.5 + 2.5 + 4.0	9.0					●	●
	2.5 + 2.5 + 5.0	10.0					●	●
	2.5 + 3.5 + 3.5	9.5					●	●
	2.5 + 3.5 + 4.0	10.0					●	●
	2.5 + 3.5 + 5.0	11.0					●	●
	2.5 + 4.0 + 4.0	10.5					●	●
	2.5 + 4.0 + 5.0	11.5						●
	3.5 + 3.5 + 3.5	10.5					●	●
	3.5 + 3.5 + 4.0	11.0					●	●
	3.5 + 3.5 + 5.0	12.0						●
	3.5 + 4.0 + 4.0	11.5						●
Four Units	2.5 + 2.5 + 2.5 + 2.5	10.0						●
	2.5 + 2.5 + 2.5 + 3.5	11.0						●
	2.5 + 2.5 + 2.5 + 4.0	11.5						●
	2.5 + 2.5 + 3.5 + 3.5	12.0						●

6.0† Actual nominal cooling capacity is 6.3KW

* **Two Units** indicated are for simultaneous operation of two indoor units connected to each compressor.

** **Two Units** indicated are for simultaneous operation of two indoor units connected to one compressor.

Monozone/Multizone Combinations

RAC-25/35/50NH4

		Cooling Mode					Heating Mode				
	Combination of Indoor Units	Room 1 Capacity (kW)	Total Capacity (kW)	Total Input (W)	Total Current (A)	EER	Room 1 Capacity (kW)	Total Capacity (kW)	Total Input (W)	Total Current (A)	COP
RAC-25NH4	RAK-25NH4	2.5	2.5 (0.9-3.0)	695 (155-1050)	3.1	3.60	3.5	3.5 (0.9-5.0)	900 (155-1400)	4.0	3.89
	RAF-25NH4	2.5	2.5 (0.9-3.0)	695 (155-1050)	3.1	3.60	3.9	3.5 (0.9-5.0)	900 (155-1400)	4.0	4.33
	RAI-25NH4	2.5	2.5 (0.9-3.0)	695 (155-1050)	2.9	3.60	3.5	3.8 (0.9-5.0)	900 (155-1400)	4.0	3.7
	RAD-25NH4	2.5	2.5 (0.9-3.0)	720 (220-980)	3.2	3.47	3.8	3.8 (1.1-4.8)	1000 (210-1280)	4.4	3.80
RAC-35NH4	RAK-35NH4	3.5	3.5 (0.9-4.0)	1080 (155-1280)	4.7	3.24	4.8	4.8 (0.9-6.6)	1320 (155-1920)	5.8	3.64
	RAK-35NH4	–	–	–	–	–	–	–	–	–	–
RAC-50NH4	RAK-50NH4	5.0	5.0 (0.9-5.2)	1780 (155-2230)	7.8	2.81	6.5	6.5 (0.9-8.1)	1970 (155-2700)	8.7	3.30
	RAF-50NH4	5.0	5.0 (0.9-5.2)	1780 (155-2230)	7.8	2.81	6.7	6.7 (0.9-8.1)	1850 (155-2700)	8.1	3.62
	RAI-40NH4	4.0	4.0 (0.9-4.5)	1380 (155-1950)	5.8	2.90	5.2	5.2 (0.9-5.8)	1620 (155-1900)	6.8	3.21
	RAD-40NH4	4.0	4.0 (1.0-4.5)	1400 (220-1560)	6.1	2.86	5.2	5.2 (0.9-5.8)	1770 (210-1920)	7.8	2.94
RAC-60NH4	RAK-60NH4	6.3 *	6.3 (0.9-6.5)	2225 (155-2500)	9.8	2.83	7.3	7.3 (0.9-9.8)	2350 (115-2700)	10.3	3.11
	–	–	–	–	–	–	–	–	–	–	–

Rating Condition (Dry Bulb/Wet Bulb)

	Indoor	Outdoor
Cooling	27/19 C	35/- C
Heating	20/- C	7/5 C

RAM-55QH4

		Cooling Mode						Heating Mode					
	Combination of Indoor Units	Total (kW)	Room Capacity 1 (kW)	2 (kW)	Total Capacity (kW)	Total Input (W)	Total Current (W)	EER	Room Capacity 1 (kW)	2 (kW)	Total Capacity (kW)	Total Input (W)	Total Current(W)	COP
*One Unit	2.5	2.5	2.5	–	2.5	780 (1.00-2.80)	3.6 - 3.3 (200-980)	3.21	3.9	–	3.9	1145 (1.10-4.70)	5.3 - 4.8 (200-1380)	3.41
	3.5	3.5	3.5	–	3.5	1160 (1.00-3.90)	5.3 - 4.9 (200-1280)	3.02	4.8	–	4.8	1150 (1.10-5.80)	7.1 - 6.5 200-1870)	3.10
	4.0	4.0	4.0	–	4.0	1330 (1.00-4.50)	6.1 - 5.6 (200-1480)	3.01	6.0	–	6.0	2150 (1.10-6.80)	9.9 - 9.0 (200-2440)	2.79
	5.0	5.0	5.0	–	5.0	1780 (1.00-5.60)	8.2 - 7.5 (200-1960)	2.81	6.5	–	6.5	2400 (1.10-7.20)	11.0 - 10.1 (200-2660)	2.71
**Two Units	2.5 + 2.5	5.0	2.5	2.5	5.0	1650 (1.50-5.60)	7.6 - 6.9 (200-1820)	3.03	3.4	3.4	6.8	2015 (1.50-7.20)	9.3 - 8.5 (200-2110)	3.37
	2.5 + 3.5	6.0	2.2	3.0	5.2	1730 (1.50-5.70)	7.9 - 7.3 (200-1900)	3.01	3.2	3.9	7.0	2070 (1.50-7.20)	9.5 - 8.7 (200-2110)	3.38
	2.5 + 4.0	6.5	2.1	3.3	5.4	1795 (1.50-5.90)	8.2 - 7.6 (200-1980)	3.01	2.9	4.4	7.2	2110 (1.50-7.20)	9.7 - 8.9 (200-2110)	3.41
	3.5 + 3.5	7.0	2.7	2.7	5.4	1795 (1.50-5.90)	8.2 - 7.6 (200-1980)	3.01	3.6	3.6	7.2	2110 (1.50-7.20)	9.7 - 8.9 (200-2110)	3.41
	2.5 + 5.0	7.5	1.8	3.6	5.4	1795 (1.50-5.90)	8.2 - 7.6 (200-1980)	3.01	2.7	4.5	7.2	2110 (1.50-7.20)	9.7 - 8.9 (200-2110)	3.41
	3.5 + 4.0	7.5	2.5	2.9	5.4	1795 (1.50-5.90)	8.2 - 7.6 (200-1980)	3.01	3.2	4.0	7.2	2110 (1.50-7.20)	9.7 - 8.9 (200-2110)	3.41

* **One Unit:** Each unit is connected to each compressor

** **Two Units:** Two units are connected to one compressor

Multizone Combinations

RAM-60QH4

	Combination of Indoor Units	Cooling Mode							Heating Mode					
		Total (kW)	Room Capacity 1 (kW)	2 (kW)	Total Capacity (kW)	Total Input (W)	Total Current (W)	EER	Room Capacity 1 (kW)	2 (kW)	Total Capacity (kW)	Total Input (W)	Total Current (W)	COP
*One Unit	2.5	2.5	2.5	-	2.50 (1.00-2.80)	780 (200-980)	3.4	3.21	3.9	-	3.90 (1.10-4.70)	1080 (200-1280)	4.7	3.61
	3.5	3.5	3.5	-	3.50 (1.00-3.90)	1160 (200-1280)	5.1	3.02	4.8	-	4.80 (1.10-5.80)	1380 (200-1750)	6.1	3.48
	4.0	4.0	4.0	-	4.00 (1.00-4.50)	1330 (200-1480)	5.8	3.01	6.0	-	6.00 (1.10-6.80)	1870 (200-2060)	8.2	3.21
	5.0	5.0	5.0	-	5.00 (1.00-5.60)	1780 (200-1960)	7.8	2.81	6.5	-	6.50 (1.10-7.40)	2070 (200-2170)	9.1	3.14
**Two Units	2.5+2.5	5.0	2.5	2.5	5.00 (1.50-5.60)	1650 (200-1820)	7.2	3.03	3.4	3.4	6.80 (1.50-7.50)	1880 (200-2070)	8.2	3.62
	2.5+3.5	6.0	2.3	3.2	5.40 (1.50-5.90)	1795 (200-1980)	7.9	3.01	3.2	3.9	7.00 (1.50-7.70)	1940 (200-2130)	8.5	3.61
	2.5+4.0	6.5	2.1	3.3	5.40 (1.50-5.90)	1795 (200-1980)	7.9	3.01	2.8	4.3	7.00 (1.50-7.70)	1940 (200-2130)	8.5	3.61
	3.5+3.5	7.0	2.8	2.8	5.60 (1.50-6.20)	1860 (200-2050)	8.1	3.01	3.6	3.6	7.20 (1.50-7.90)	1995 (200-2200)	8.7	3.61
	2.5+5.0	7.5	1.9	3.9	5.80 (1.50-6.40)	1930 (200-2130)	8.4	3.01	2.7	4.7	7.40 (1.50-8.20)	2050 (200-2260)	9.0	3.61
	3.5+4.0	7.5	2.7	3.1	5.80 (1.50-6.40)	1930 (200-2130)	8.4	3.01	3.3	4.1	7.40 (1.50-8.20)	2050 (200-2260)	9.0	3.61
	4.0+4.0	8.0	2.9	2.9	5.80 (1.50-6.40)	1930 (200-2130)	8.4	3.01	3.7	3.7	7.40 (1.50-8.20)	2050 (200-2260)	9.0	3.61
	3.5+5.0	8.5	2.5	3.5	6.00 (1.50-6.60)	1995 (200-2200)	8.7	3.01	3.1	4.4	7.50 (1.50-8.30)	2080 (200-2300)	9.1	3.61

* **One Unit** indicated are only for one unit operation when two indoor units are connected
** **Two Units** indicated are simultaneous operation of two indoor units connected

RAM-65QH4

	Combination of Indoor Units		Cooling Mode							Heating Mode						
		Total (kW)	Room Capacity 1 (kW)	2 (kW)	3 (kW)	Total Capacity (kW)	Total Input (W)	Total Current (W)	EER	Room Capacity 1 (kW)	2 (kW)	3 (kW)	Total Capacity (kW)	Total Input (W)	Total Current (W)	COP
*One Unit	2.5	2.5	2.5	-	-	2.50 (1.00-2.80)	780 (200-980)	3.6-3.3	3.21	3.90	-	-	3.90 (1.10-4.70)	1145 (200-1380)	5.3-4.8	3.41
	3.5	3.5	3.5	-	-	3.50 (1.00-3.90)	1160 (200-1280)	5.3-4.9	3.02	4.80	-	-	4.80 (1.10-5.80)	1550 (200-1870)	7.1-6.5	3.10
	4.0	4.0	4.0	-	-	4.00 (1.00-4.50)	1330 (200-1480)	6.1-5.6	3.01	6.00	-	-	6.00 (1.10-6.80)	2150 (200-2440)	9.9-9.0	2.79
	5.0	5.0	5.0	-	-	5.00 (1.00-5.60)	1780 (200-1960)	8.2-7.5	2.81	6.50	-	-	6.50 (1.10-7.20)	2400 (200-2660)	11.0-10.1	2.71
**Two Units	2.5+2.5	5.0	2.5	2.5	-	5.00 (1.50-5.60)	1650 (200-1820)	7.6-6.9	3.03	3.40	3.40	-	6.80 (1.50-7.20)	2015 (200-2110)	9.3-8.5	3.37
	2.5+3.5	6.0	2.2	3.0	-	5.20 (1.50-5.70)	1730 (200-1900)	7.9-7.3	3.01	3.20	3.90	-	7.00 (1.50-7.20)	2070 (200-2110)	9.5-8.7	3.38
	2.5+4.0	6.5	2.1	3.3	-	5.40 (1.50-5.90)	1795 (200-1980)	8.2-7.6	3.01	2.90	4.40	-	7.20 (1.50-7.20)	2110 (200-2110)	9.7-8.9	3.41
	3.5+3.5	7.0	2.7	2.7	-	5.40 (1.50-5.90)	1795 (200-1980)	8.2-7.6	3.01	3.60	3.60	-	7.20 (1.50-7.20)	2110 (200-2110)	9.7-8.9	3.41
	2.5+5.0	7.5	1.8	3.6	-	5.40 (1.50-5.90)	1795 (200-1980)	8.2-7.6	3.01	2.70	4.50	-	7.20 (1.50-7.20)	2110 (200-2110)	9.7-8.9	3.41
	3.5+4.0	7.5	2.5	2.9	-	5.40 (1.50-5.90)	1795 (200-1980)	8.2-7.6	3.01	3.20	4.00	-	7.20 (1.50-7.20)	2110 (200-2110)	9.7-8.9	3.41
	4.0+4.0	8.0	3.0	3.0	-	6.00 (1.50-6.60)	1995 (200-2200)	9.2-8.4	3.01	3.60	3.60	-	7.20 (1.50-7.20)	2110 (200-2110)	9.7-8.9	3.41
	3.5+5.0	8.5	2.5	3.5	-	6.00 (1.50-6.60)	1995 (200-2200)	9.2-8.4	3.01	3.10	4.20	-	7.20 (1.50-7.20)	2110 (200-2110)	9.7-8.9	3.41
	4.0+5.0	9.0	2.7	3.3	-	6.00 (1.50-6.60)	1995 (200-2200)	9.2-8.4	3.01	3.50	3.80	-	7.20 (1.50-7.20)	2100 (200-2100)	9.7-8.9	3.43
†Three Units	2.5+2.5+2.5	7.5	2.1	2.1	2.1	6.30 (1.50-6.60)	2095 (200-2200)	9.6-8.8	3.01	2.40	2.40	2.40	7.20 (1.50-7.20)	1900 (200-210)	8.7-8.0	3.79
	2.5+2.5+3.5	8.5	1.9	1.9	2.6	6.30 (1.50-6.60)	2095 (200-2200)	9.6-8.8	3.01	2.20	2.20	2.70	7.20 (1.50-7.20)	1900 (200-210)	8.7-8.0	3.79

* **One Unit** indicated are only for one unit operation when two indoor units are connected
** **Two Units** indicated are simultaneous operation when two indoor units connected
† **Three Units** indicated are simultaneous operation of three indoor units connected

Rating Condition (Dry Bulb/Wet Bulb)

	Indoor	Outdoor
Cooling	27/19 C	35/- C
Heating	20/- C	7/5 C

Multizone Combinations

RAM-70QH4

	Combination of Indoor Units	Total (kW)	Cooling Mode							Heating Mode						
			Room Capacity 1 (kW)	2 (kW)	3 (kW)	Total Capacity (kW)	Total Input (W)	Total Current (W)	EER	Room Capacity 1 (kW)	2 (kW)	3 (kW)	Total Capacity (kW)	Total Input (W)	Total Current (W)	COP
*One Unit	2.5	2.5	2.5	-	-	2.5 (1.00-2.80)	780 (360-980)	3.4	3.21	3.9	-	-	3.9 (1.10-4.70)	1100 (320-1280)	4.8	3.55
	3.5	3.5	3.5	-	-	3.5 (1.00-3.90)	1160 (360-1280)	5.1	3.02	4.8	-	-	4.8 (1.10-5.80)	1380 (320-1750)	6.1	3.48
	4.0	4.0	4.0	-	-	4.0 (1.00-4.50)	1340 (360-1480)	5.9	2.99	6.0	-	-	6.0 (1.10-6.80)	1770 (320-1920)	7.8	3.39
	5.0	5.0	5.0	-	-	5.0 (1.00-5.60)	1910 (360-2100)	8.4	2.62	6.7	-	-	6.7 (1.10-7.60)	2070 (320-2170)	9.1	3.24
*Two Units	2.5+2.5	5.0	2.5	2.5	-	5.0 (1.50-5.60)	1560 (640-1720)	6.9	3.21	3.9	3.9	-	7.8 (1.50-8.60)	2290 (600-2520)	10.1	3.41
	2.5+3.5	6.0	2.5	3.5	-	6.0 (1.50-6.60)	1990 (640-2190)	8.7	3.02	3.9	4.8	-	8.7 (1.50-9.60)	2690 (600-2960)	11.8	3.23
	2.5+4.0	6.5	2.5	4.0	-	6.5 (1.50-7.00)	2220 (640-2440)	9.7	2.93	3.5	5.5	-	9.0 (1.50-9.90)	3200 (600-3520)	14.1	2.81
	2.5+5.0	6.5	2.5	4.5	-	7.0 (1.50-7.60)	2580 (640-2840)	11.3	2.71	3.0	6.0	-	9.0 (1.50-9.90)	3200 (600-3520)	14.1	2.81
	3.5+3.5	7.0	3.5	3.5	-	7.0 (1.50-7.60)	2580 (640-2840)	11.3	2.71	4.7	4.7	-	9.4 (1.50-10.3)	3200 (600-3520)	14.1	2.94
	3.5+4.0	7.5	3.3	3.7	-	7.0 (1.50-7.60)	2580 (640-2840)	11.3	2.71	4.5	4.9	-	9.4 (1.50-10.3)	3200 (600-3520)	14.1	2.94
	3.5+5.0	8.5	2.9	4.1	-	7.0 (1.50-7.60)	2580 (640-2840)	11.3	2.71	3.9	5.5	-	9.4 (1.50-10.3)	3200 (600-3520)	14.1	2.94
	4.0+4.0	8.0	3.5	3.5	-	7.0 (1.50-7.60)	2580 (640-2840)	11.3	2.71	4.7	4.7	-	9.4 (1.50-10.3)	3200 (600-3520)	14.1	2.94
	4.0+5.0	9.0	3.1	3.9	-	7.0 (1.50-7.60)	2580 (640-2840)	11.3	2.71	4.2	5.2	-	9.4 (1.50-10.3)	3200 (600-3520)	14.1	2.94
**Two Units	2.5+2.5	5.0	2.5	2.5	-	5.0 (1.50-5.50)	1660 (640-1830)	7.3	3.01	2.9	2.9	-	5.8 (1.50-6.40)	1580 (600-1740)	6.9	3.67
	2.5+3.5	6.0	2.3	3.3	-	5.6 (1.50-6.20)	1860 (640-2050)	8.2	3.01	2.6	3.6	-	6.2 (1.50-6.80)	1930 (600-2120)	8.5	3.21
	2.5+4.0	6.5	2.2	3.4	-	5.6 (1.50-6.20)	1860 (640-2050)	8.2	3.01	2.4	3.8	-	6.2 (1.50-6.80)	1930 (600-2120)	8.5	3.21
	3.5+3.5	7.0	2.8	2.8	-	5.6 (1.50-6.20)	1860 (640-2050)	8.2	3.01	3.1	3.1	-	6.2 (1.50-6.80)	1930 (600-2120)	8.5	3.21
*Three Units	2.5+2.5+2.5	7.5	2.3	2.3	2.3	7.0 (3.00-7.90)	2180 (650-3180)	9.6	3.21	3.2	3.2	3.2	9.6 (3.00-10.60)	2480 (620-3520)	10.9	3.87
	2.5+2.5+3.5	8.5	2.1	2.1	2.9	7.0 (3.00-7.90)	2180 (650-3180)	9.6	3.21	2.8	2.8	4.0	9.6 (3.00-10.60)	2480 (620-3520)	10.9	3.87
	2.5+2.5+4.0	9.0	2.0	2.0	3.1	7.0 (3.00-7.90)	2180 (650-3180)	9.6	3.21	2.6	2.6	4.4	9.6 (3.00-10.60)	2480 (620-3520)	10.9	3.87
	2.5+2.5+5.0	10.0	1.8	1.8	3.5	7.0 (3.00-7.90)	2180 (650-3180)	9.6	3.21	2.4	2.4	4.9	9.6 (3.00-10.60)	2480 (620-3520)	10.9	3.87
	2.5+3.5+3.5	9.5	1.8	2.6	2.6	7.0 (3.00-7.90)	2180 (650-3180)	9.6	3.21	2.5	3.5	3.5	9.6 (3.00-10.60)	2480 (620-3520)	10.9	3.87
	2.5+3.5+4.0	10.0	1.8	2.5	2.8	7.0 (3.00-7.90)	2180 (650-3180)	9.6	3.21	2.4	3.4	3.8	9.6 (3.00-10.60)	2480 (620-3520)	10.9	3.87
	2.5+3.5+5.0	11.0	1.6	2.2	3.2	7.0 (3.00-7.90)	2180 (650-3180)	9.6	3.21	2.1	3.1	4.4	9.6 (3.00-10.60)	2480 (620-3520)	10.9	3.87
	2.5+4.0+4.0	10.5	1.7	2.7	2.7	7.0 (3.00-7.90)	2180 (650-3180)	9.6	3.21	2.2	3.7	3.7	9.6 (3.00-10.60)	2480 (620-3520)	10.9	3.87
	3.5+3.5+3.5	10.5	2.3	2.3	2.3	7.0 (3.00-7.90)	2180 (650-3180)	9.6	3.21	3.2	3.2	3.2	9.6 (3.00-10.60)	2480 (620-3520)	10.9	3.87
	3.5+3.5+4.0	11.0	2.2	2.2	2.6	7.0 (3.00-7.90)	2180 (650-3180)	9.6	3.21	3.1	3.1	3.4	9.6 (3.00-10.60)	2480 (620-3520)	10.9	3.87

* **Two Units** indicated are for simultaneous operation of two indoor units connected to each compressor.

** **Two Units** indicated are for simultaneous operation of two indoor units connected to one compressor.

Multizone Combinations

RAM-80QH4

	Combination of Indoor Units (kW)	Cooling Mode									Heating Mode							
		Total (kW)	Room Capacity 1 (kW)	2 (kW)	3 (kW)	4 (kW)	Total Capacity (W)	Total Input (W)	Total Current	EER (kW)	Room Capacity 1 (kW)	2 (kW)	3 (kW)	4 (kW)	Total Capacity (W)	Total Input (W)	Total Current	COP
*One Unit	2.5	2.5	2.5	-	-	-	2.5 (1.00-2.80)	780 (360-980)	3.4	3.21	3.9	-	-	-	3.9 (1.10-4.70)	1100 (320-1280)	4.8	3.55
	3.5	3.5	3.5	-	-	-	3.5 (1.00-3.90)	1160 (360-1280)	5.1	3.02	4.8	-	-	-	4.8 (1.10-5.80)	1380 (320-1750)	6.1	3.48
	4.0	4.0	4.0	-	-	-	4.0 (1.00-4.50)	1340 (360-1480)	5.9	2.99	6.0	-	-	-	6.0 (1.10-6.80)	1770 (320-1920)	7.8	3.39
	5.0	5.0	5.0	-	-	-	5.0 (1.00-5.60)	1910 (360-2100)	8.4	2.62	6.7	-	-	-	6.7 (1.10-7.60)	2070 (320-2170)	9.1	3.24
**Two Units	2.5+2.5	5.0	2.5	2.5	-	-	5.0 (1.50-5.60)	1560 (640-1720)	6.9	3.21	3.9	3.9	-	-	7.8 (1.50-8.60)	2290 (600-2520)	10.1	3.41
	2.5+3.5	6.0	2.5	3.5	-	-	6.0 (1.50-6.60)	1990 (640-2190)	8.7	3.02	3.9	4.8	-	-	8.7 (1.50-9.60)	2690 (600-2960)	11.8	3.23
	2.5+4.0	6.5	2.5	4.0	-	-	6.5 (1.50-7.00)	2220 (640-2440)	9.7	2.93	3.5	5.5	-	-	9.0 (1.50-9.90)	3200 (600-3520)	14.1	2.81
	2.5+5.0	7.5	2.5	4.5	-	-	7.0 (1.50-7.60)	2580 (640-2840)	11.3	2.71	3.0	6.0	-	-	9.0 (1.50-9.90)	3200 (600-3520)	14.1	2.81
	3.5+3.5	7.0	3.5	3.5	-	-	7.0 (1.50-7.60)	2580 (640-2840)	11.3	2.71	4.7	4.7	-	-	9.4 (1.50-10.3)	3200 (600-3520)	14.1	2.94
	3.5+4.0	7.5	3.5	4.0	-	-	7.5 (1.50-8.00)	2720 (640-2990)	11.9	2.76	4.5	4.9	-	-	9.4 (1.50-10.3)	3200 (600-3520)	14.1	2.94
	3.5+5.0	8.5	3.1	4.4	-	-	7.5 (1.50-8.00)	2720 (640-2990)	11.9	2.76	4.0	5.6	-	-	9.6 (1.50-10.6)	3300 (600-3630)	14.5	2.91
	4.0+4.0	8.0	4.0	4.0	-	-	8.0 (1.50-8.20)	2760 (640-3040)	12.1	2.90	4.8	4.8	-	-	9.6 (1.50-10.6)	3300 (600-3630)	14.5	2.91
	4.0+5.0	9.0	3.6	4.4	-	-	8.0 (1.50-8.20)	2760 (640-3040)	12.1	2.90	4.3	5.3	-	-	9.6 (1.50-10.6)	3300 (600-3630)	14.5	2.91
	5.0+5.0	10.0	4.0	4.0	-	-	8.0 (1.50-8.20)	2760 (640-3040)	12.1	2.90	4.8	4.8	-	-	9.6 (1.50-10.6)	3300 (600-3630)	14.5	2.91
	2.5+2.5	5.0	2.5	2.5	-	-	5.0 (1.50-5.50)	1660 (640-1830)	7.3	3.01	2.9	2.9	-	-	5.8 (1.50-6.40)	1580 (600-1740)	6.9	3.67
	2.5+3.5	6.0	2.3	3.3	-	-	5.6 (1.50-6.20)	1860 (640-2050)	8.2	3.01	2.6	3.6	-	-	6.2 (1.50-6.80)	1930 (600-2120)	8.5	3.21
	2.5+4.0	6.5	2.2	3.4	-	-	5.6 (1.50-6.20)	1860 (640-2050)	8.2	3.01	2.4	3.8	-	-	6.2 (1.50-6.80)	1930 (600-2120)	8.5	3.21
	3.5+3.5	7.0	2.8	2.8	-	-	5.6 (1.50-6.20)	1860 (640-2050)	8.2	3.01	3.1	3.1	-	-	6.2 (1.50-6.80)	1930 (600-2120)	8.5	3.21
*Three Units	2.5+2.5+2.5	7.5	2.5	2.5	2.5	-	7.5 (3.00-8.20)	2420 (650-3000)	10.6	3.10	3.4	3.4	3.4	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	2.5+2.5+3.5	8.5	2.3	2.3	3.4	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	3.0	3.0	4.2	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	2.5+2.5+4.0	9.0	2.2	2.2	3.6	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	2.8	2.8	4.6	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	2.5+2.5+5.0	10.0	2.0	2.0	4.0	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	2.6	2.6	5.0	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	2.5+3.5+3.5	9.5	2.0	3.0	3.0	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	2.6	3.8	3.8	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	2.5+3.5+4.0	10.0	2.0	2.9	3.1	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	2.6	3.6	4.0	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	2.5+3.5+5.0	11.0	1.8	2.6	3.6	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	2.3	3.3	4.6	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	2.5+4.0+4.0	10.5	2.0	3.0	3.0	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	2.4	3.9	3.9	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	2.5+4.0+5.0	11.5	1.7	2.8	3.5	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	2.3	3.5	4.4	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	3.5+3.5+3.5	10.5	2.7	2.7	2.7	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	3.4	3.4	3.4	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	3.5+3.5+4.0	11.0	2.6	2.6	2.8	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	3.2	3.2	3.8	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	3.5+3.5+5.0	12.0	2.4	2.4	3.2	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	3.0	3.0	4.2	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	3.5+4.0+4.0	11.5	2.4	2.8	2.8	-	8.0 (3.00-8.50)	2580 (650-3200)	11.3	3.10	3.2	3.5	3.5	-	10.2 (3.00-11.20)	2530 (620-3630)	11.1	4.03
	2.5+2.5+2.5+2.5	10.0	2.0	2.0	2.0	2.0	8.0 (3.00-9.20)	2650 (650-3200)	11.6	3.02	2.8	2.8	2.8	2.8	11.0 (3.00-12.40)	2630 (620-3630)	11.6	4.18
	2.5+2.5+2.5+3.5	11.0	1.9	1.9	1.9	2.5	8.0 (3.00-9.20)	2650 (650-3200)	11.6	3.02	2.5	2.5	2.5	3.5	11.0 (3.00-12.40)	2630 (620-3630)	11.6	4.18
	2.5+2.5+2.5+4.0	11.5	1.8	1.8	1.8	2.6	8.0 (3.00-9.20)	2650 (650-3200)	11.6	3.02	2.4	2.4	2.4	3.8	11.0 (3.00-12.40)	2630 (620-3630)	11.6	4.18
	2.5+2.5+3.5+3.5	12.0	1.7	1.7	2.3	2.3	8.0 (3.00-9.20)	2650 (650-3200)	11.6	3.02	2.3	3.2	3.2	3.2	11.0 (3.00-12.40)	2630 (620-3630)	11.6	4.18

* **Two Units** indicated are for simultaneous operation of two indoor units connected to each compressor.

** **Two Units** indicated are for simultaneous operation of two indoor units connected to one compressor.

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 5.0Kw, 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.

Summit

- DC inverter PAM control
- Highest COP up to 4.46 (AA) in cooling/4.42 (AA) in heating
- Low noise down to 20dBA on sleep mode
- Heating available under -15ºC ambient temperature
- Auto restart by previous mode and Auto changeover
- Washable carbon and anti-bacteria air purifying filter
- 24hr remote controller timer
- R410a refrigerant

General Data

Model	Indoor / Outdoor	RAS-18YH4 / RAC-18YH4	RAS-25YH4 / RAC-25YH4	RAS-35YH4 / RAC-35YH4	RAS-50YH4 / RAC-50YH4
Power Supply			AC 1Ph 220-240V 50Hz		
Nominal Cooling Capacity (min-max)	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)
Nominal Heating Capacity (min-max)	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)
Total Input					
Cooling	W	550(155-1010)	560(155-1080)	950(155-1300)	1780(115-2200)
Heating	W	580(115-970)	770(115-1120)	980(115-1300)	1970(155-2100)
Total Current					
Cooling	A	2.8	2.9	4.4	7.8
Heating	A	2.8	3.7	4.5	8.7
COP					
Cooling		3.64	4.46	3.68	2.81
Heating		4.31	4.42	4.29	3.30
Sound Pressure Level (Overall scale)					
Cooling	dBA	35/32/26/20	38/32/26/20	41/35/29/25	47/39/28/24
Heating	dBA	36/33/27/23	39/33/27/23	41/35/30/26	47/39/31/27
Condenser Sound Pressure Level					
Cooling	dBA	44	45	46	50
Heating	dBA	46	46	47	52
Indoor Outer Dimensions (Net/(Carton))					
Height	mm	280(325)	280(325)	280(325)	280(325)
Width	mm	780(826)	780(826)	780(826)	780(826)
Depth	mm	205(254)	205(254)	205(254)	205(254)
Net Weight	kg	9.5(12)	9.5(12)	9.5(12)	9.5(12)
Condenser Outer Dimensions (Net/(Carton))					
Height	mm	548(591)	548(591)	548(591)	650(698)
Width	mm	750(871)	750(871)	750(871)	850(1008)
Depth	mm	288(377)	288(377)	288(377)	298(394)
Net Weight	kg	35(38)	35(38)	36(38)	60(65)
Cabinet Colour (Munsell Code)		Beige (5Y 7.2)	Beige (5Y 7.2)	Beige (5Y 7.2)	Beige (2.5Y 8.2)
Refrigerant		R410a	R410a	R410a	R410a
Flow Control			Expansion Valve	Expansion Valve	
Compressor					
Type		DC Rotary	DC Scroll	DC Scroll	DC Twin Rotary
Quantity	set	1	1	1	1
Indoor Fan					
Type		DC 35V	DC 35V	DC 35V	DC 35V
Air Flow Rate Cooling	m3//min	7.3/6.7/5.8	8.5/7.0/6.0	10.1/8.0/6.5	13.5/12.5/11.5
Air Flow Rate Heating	m3//min	8.0/7.0/5.8	9.5/8.0/7.0	10.8/8.5/7.5	13.5/12.5/11.5
Condenser Fan					
Type		DC 140-350V	DC 140-350V	DC 140-350V	DC 360V
Air Flow Rate Cooling /Heating	m^3/min	24/23	31/27	32/27	36/36
Refrigerant Piping			Flair Nut/Flange Connection		
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)	9.52 (3/8)	12.7 (1/2)
Pipe Run					
Max Pipe Length	m	20	20	20	20
(Changeless)	m	20	20	20	20
Individual Pipe Length	m	20	20	20	20
Max Pipe Lift	m	10	10	10	10
Interconnection Wires	pcs	3	3	3	3
Starting Current	A	2.8	3.7	4.5	10.0
Recommended Fuse Size	A	16	16	16	16
Auto Restart by Previous Mode		Yes	Yes	Yes	Yes
Auto Changeover		Yes	Yes	Yes	Yes
LED Self Diagnosis		Yes	Yes	Yes	Yes
Air Purifying Filter Type		SPX-CFH11	SPX-CFH11	SPX-CFH11	SPX-CFH11
Remote Control Timer	Hr	24	24	24	24

NOTES:

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27 ℃ DB / 19 ℃ WB
Outdoor Air Inlet Temperature: 35 ℃ DB

Heating Operation Conditions
Indoor Air Inlet Temperature: 20 ℃ DB
Outdoor Air Inlet Temperature: 7 ℃ DB / 6 ℃ 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 hight centre
1m from suction/discharge grille.Approx. 1m from floor level

- Energy label A class COP
- Low noise down to 23dBA on sleep mode
- Heating available under -10ºC ambient temperature
- Auto restart by previous mode
- Washable carbon and anti-bacteria air purifying filter
- 24 hr remote control timer
- R410a refrigerant

Big Flow

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-07GH4 / RAC-07GH4	RAS-09GH4 / RAC-09GH4	RAS-14GH4 / RAC-14GH4	RAS-18GH4 / RAC-18GH4	RAS-24GH4 / RAC-24GH4
Power Supply				AC 1Ph 220-240V 50Hz		
Nominal Cooling Capacity (min-max)	KW	2.1	2.9	3.5	5.1	6.5
Nominal Heating Capacity (min-max)	KW	2.2	3.0	3.9	5.8	7.6
Total Input						
Cooling	W	610	900	1090	1580	2490
Heating	W	510	770	1000	1680	2660
Total Current						
Cooling	A	2.8	4.1	5.0	7.2	11.4
Heating	A	2.3	3.9	4.6	7.6	12.0
COP						
Cooling		3.44	3.22	3.21	3.23	2.61
Heating		4.31	3.90	3.85	3.42	2.86
Sound Pressure Level (Overall scale)						
Cooling	dBA	36/30/25/23	38/35/28/24	41/36/31/27	45/42/39/38	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
Condenser Sound Pressure Level						
Cooling	dBA	45	48	49	50	54
Heating	dBA	46	49	50	52	54
Indoor Outer Dimensions (Net/(Carton))						
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)
Net Weight	kg	9(11)	9(11)	9(11)	12(17)	12(17)
Condenser Outer Dimensions (Net/(Carton))						
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)
Net Weight	kg	32(35)	32(35)	38(43)	50(53)	57(62)
Cabinet Colour (Munsell Code)		Beige (2.5Y 8.2)	Beige (2.5Y 8.2)	Beige (2.5Y 8.2)	Beige (2.5Y 8.2)	Beige (2.5Y 8.2)
Refrigerant		R410a	R410a	R410a	R410a	R410a
Flow Control		Capillary	Capillary	Capillary	Capillary	Capillary
Compressor						
Type		AC Rotary	AC Rotary	AC Rotary	AC Rotary	AC Rotary
Quantity	set	1	1	1	1	1
Indoor Fan						
Type		DC35V	DC35V	DC35V	DC35V	DC35V
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
Condenser Fan						
Type	m^3/min	AC 220-240V	AC 220-240V	AC 220-240V	AC 220-240V	AC 220-240V
Air Flow Rate	m^3/min	24/24	24/24	27/27	36/36	35/36
Refrigerant Piping				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)
Pipe Run						
Max Pipe Length	m	10	10	15	15	15
(Changeless)	m	10	10	15	8*	8*
Individual Pipe Length	m	10	10	15	15	15
Max Pipe Lift	m	5	5	5	5	5
Interconnection Wires	pcs	5	5	5	5	5
Starting Current	A	22	22	30	45	67
Recommended Fuse Size	A	10	10	15	45	57
Auto Restart by Previous Mode		Yes	Yes	Yes	Yes	Yes
Auto Changeover		No	No	No	No	No
LED Self Diagnosis		Yes	Yes	Yes	Yes	Yes
Air Purifying Filter Type		SPX-CFH11	SPX-CFH11	SPX-CFH11	SPX-CFH5	SPX-CFH5
Remote Control Timer	Hr	24	24	24	24	24

* 15g/m or 25g/m additional charge over 8m

Model	Indoor / Outdoor	RAS-07G4 / RAC-07G4	RAS-09G4 / RAC-09G4	RAS-14G4 / RAC-14G4	RAS-18G4 / RAC-18G4	RAS-24G4 / RAC-24G4
Interconnection Wires	pcs	3	3	3	3	3
The Other Clauses				The same as GH4 models		

NOTES:

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27 ℃ DB / 19 ℃ WB
Outdoor Air Inlet Temperature: 35 ℃ DB

Heating Operation Conditions
Indoor Air Inlet Temperature: 20 ℃ DB
Outdoor Air Inlet Temperature: 7 ℃ DB / 6 ℃ 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 hight centre
1m from suction/discharge grille. Approx. 1m from floor level

New Product Range

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 ventilation 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 ventilation
- Self clean function
- DC Inverter PAM control
- Highest COP of this class
- Low noise down to XXX dBA
- Heating available under -15ºC ambient temperature
- Auto restart by previous mode and Auto changeover
- Nano Titanium filter and washable carbon and anti bacteria air purifying filter
- 24 hr remote control timer
- R410A refrigerant

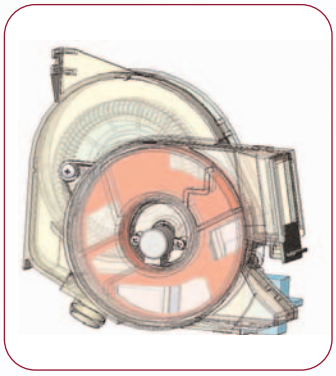
Air Exchanger

The key features are:

Two-way ventilation

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_2, CO 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.

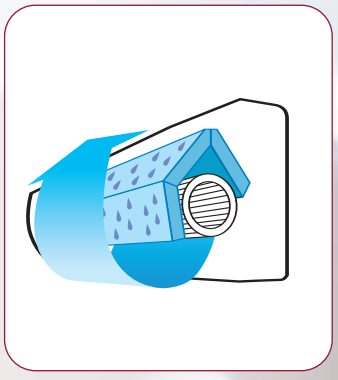


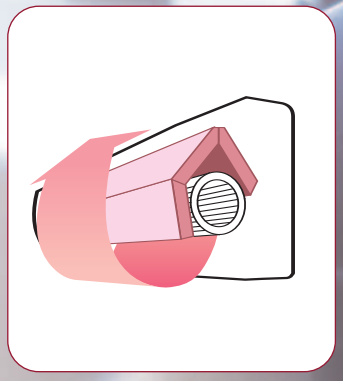
This can be operated by manual selection as and when it is required or set automatically, both of which are controlled from the new handset. If the system is set for automatic exchange, a gas sensor situated in the unit will detect and check the condition of the air regularly and activate the automatic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

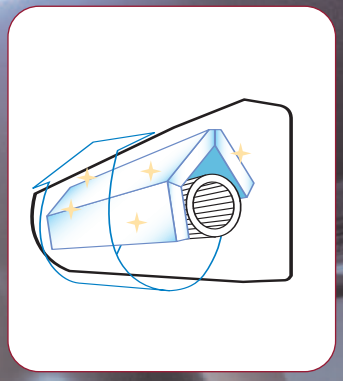
Self clean function

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.





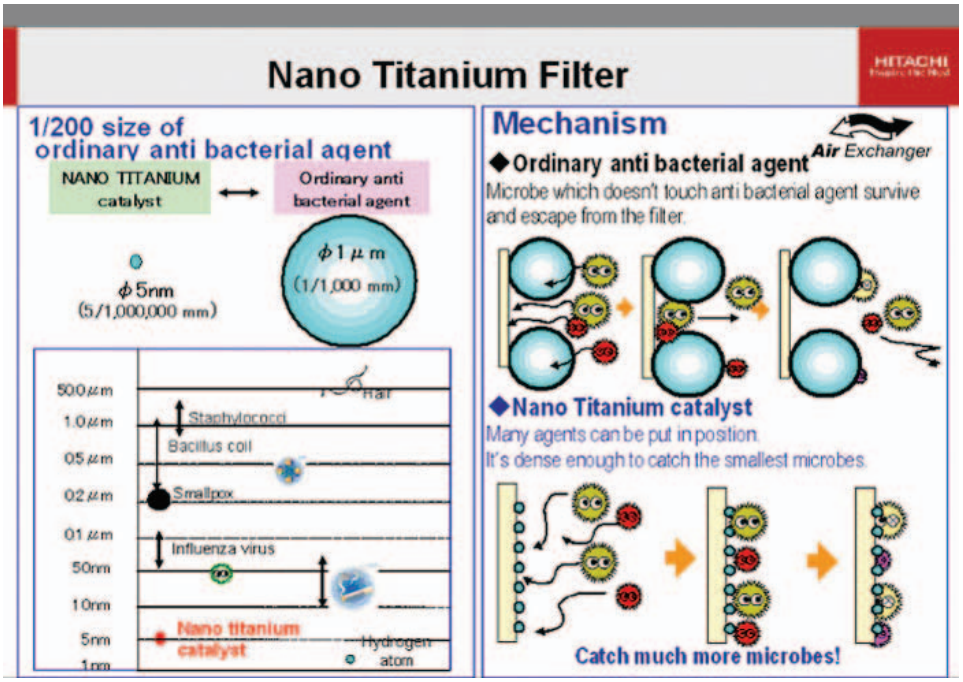


Air Exchanger Technical Description

Nano Titanium

Air Quality Nano Titanium Filter

In our new Air Exchange models, the Nano Titanium Filter SPX-NFH1 is 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 refreshing new!!

General Data

Model	Indoor	RAS-25JX4	RAS-35JX4
	Outdoor	RAC-25JX4	RAC-35JX4
Power Supply		AC 1Ph 220-240V 50Hz	
Nominal Cooling Capacity (min-max)	KW	2.5(0.9- 3.1)	3.5(0.9- 4.0)
Nominal Heating Capacity (min-max)	KW	3.4(0.9- 4.4)	4.2(0.9- 5.0)
Total Input			
Cooling	W	595(155-1160)	1000(155-1380)
Heating	W	810(115-1170)	1050(115-1350)
Total Current			
Cooling	A	3.2- 3.2	4.8- 4.6
Heating	A	4.12- 3.9	5.0- 4.8
EER/COP			
Cooling		4.20	3.50
Heating		4.20	4.00
Sound Pressure Level (Overall scale)			
Cooling	dBA	39	44
Heating	dBA	42	45
Condenser Sound Pressure Level			
Cooling	dBA	46	48
Heating	dBA	47	48
Indoor Outer Dimensions (Net/(Carton))			
Height	mm	298(352)	298(352)
Width	mm	790(836)	790(836)
Depth	mm	210(298)	210(298)
Net Weight	kg	10(12)	10(12)
Condenser Outer Dimensions (Net/(Carton))			
Height	mm	548(591)	548(591)
Width	mm	750(871)	750(871)
Depth	mm	288(377)	288(377)
Net Weight	kg	35(38)	35(38)
Cabinet Colour (Munsell Code)		Beige(5Y 7/2)	Beige(5Y 7/2)
Refrigerant		R410a	R410a
Flow Control		Expansion Valve	Expansion Valve
Compressor			
Type & Quantity		Twin Rotary x1	Twin Rotary x1
Indoor Fan			
Type		DC35V	DC35V
Air Flow Rate Cooling	m3//min	7.8(Hi)	10.0(Hi)
Air Flow Rate Heating	m3//min	9.8(Hi)	11.0(Hi)
Condenser Fan			
Type		DC120-380V	DC120-380V
Air Flow Rate Cooling /Heating	m^3/min	31/27	32/28
Refrigerant Piping		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)
Pipe Run			
Max Pipe Length	m	20	20
(Changeless)	m	20	20
Individual Pipe Length	m	20	20
Max Pipe Lift	m	10	10
Interconnection Wires	pcs	3	3
Starting Current	A	4.1-3.9	5.3-5.0
Recommended Fuse Size	A	16	16
Auto Restart by Previous Mode		Yes	Yes
Auto Changeover		Yes	Yes
LED Self Diagnosis		Yes	Yes
Air Purifying Filter Type		SPX-CF11 and SPX-NF1	SPX-CF11 and SPX-NF1
Remote Control Timer	Hr	24	24
Pipe Cover Type		HC-DS5	HC-DS5

NOTES:

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27 ℃ DB
19 ℃ WB
Outdoor Air Inlet Temperature: 35 ℃ DB

Heating Operation Conditions
Indoor Air Inlet Temperature: 20 ℃ DB
Outdoor Air Inlet Temperature: 7 ℃ DB
6 ℃ WB

Sound Pressure Level Measurement Distance:
1m from discharge grille. 0.8m beneath the unit's hight centre
1m from suction/discharge grille. Approx. 1m from floor level

Piping Length: 7.5 meters
Piping Lift: 0 meters

Project references

Croatia Post

Project Reference

Name	Croation Post Office
Category	Office
Size	More then 320 office around Croatia
Location	Croatia
Interesting Facts	There is no other heating source
Distributor	INDUSTRY IMPEX
Contractor/Installer	INDUSTRY IMPEX
Project Date	2004
System	Monozone/ Multizone DC inverter systems
Indoor Units	RAK 35 NH4, 280 PCs, RAK 50 NH4, 180 PCs
Outdoor Units	RAC 50 NH4, 180 PCs, RAC 35 NH4 140 PCs, RAM 70 QH4, 70 PCs
Project Description	IMPEX made installation in more then 320 location around CROATIA

Hotel La Pioline

Project Reference

Name	Hotel La Pioline
Location	France
Application	Hotel
Age	Refurbishment
Occupancy	Bedrooms
Distributor	Harmony Aor Cond
Installer	MIDI FROID
Project Date	2003
System	10 x Multizone systems
Indoor Units	35 x RAF, RAD
Outdoor Units	10 x Multizone
Project Description	Hotel La Pioline, a classic local hotel in Aix en Provence, France, installed Multizone for its luxurious guest rooms.

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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