

HITACHI

Inverter VRF Multi-Split Air Conditioning System

G2 Series

Specifications in this catalog are subject to change without prior notice to keep abreast with product innovations for our customers' benefit.



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G2-2001



Applicable for Mansions, Villas, Supermarkets, Small Shops and Offices

The Future of Air Conditioning is Here

Introducing the Hitachi Commercial Air Conditioner Set-Free G2,
the ideal air conditioning solution for virtually any commercial space, big or small.

Featuring a wide variety of lightweight and compact indoor and outdoor units, this
lineup gives you the power to choose the type of comfort for every room, on
every level, on every building.

The future of comfort is here.

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HITACHI

Air Conditioning Solutions

1 OUTDOOR UNITS Capacity From 6 to 96 HP (See P.25-44)

Hitachi Outdoor Units are designed to give you the cooling comfort you deserve while providing ease of installation. These air conditioners feature Hitachi's revolutionary scroll compressor that uses R410a refrigerant that's energy efficient and environmentally friendly at the same time.

G2 Series



6 to 96 HP

2 INDOOR UNITS 6 Indoor Units that can be used interchangeably (See P.46-61)

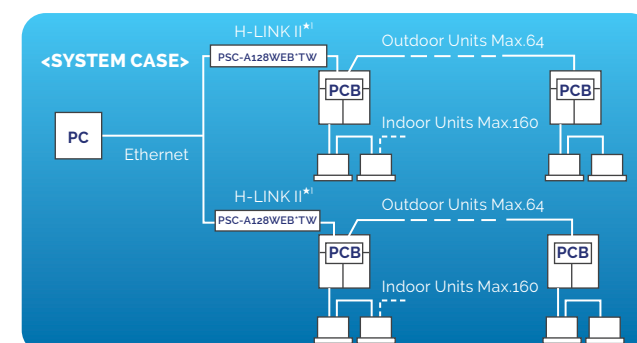
State-of-the-art control network system provides you ease of access for virtually endless comfort. Old and new refrigerant types are applicable to match the requirements of your outdoor unit.



3 NETWORK SYSTEMS (CS-NET) (See P.14-17)

The CS-NET System, designed specifically for Hitachi Air Conditioners, is optimized for central management systems of buildings and is compatible with computer-controlled systems.

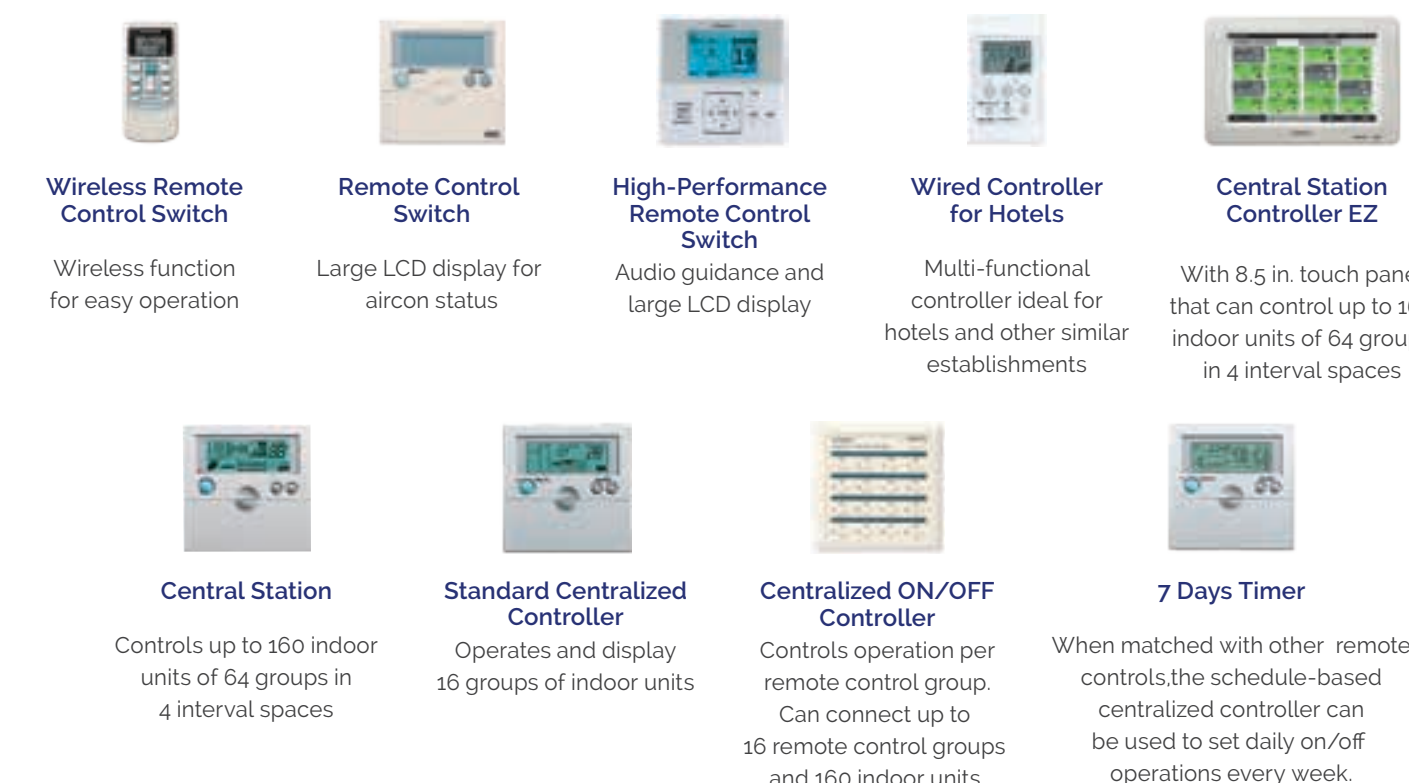
- Through H-LINK II wiring, connect up to 64 outdoor units.
- Through H-LINK II wiring, connect up to 160 indoor units.



★ 1: Max length of transmission wire for each of indoor unit and outdoor unit is 1,000m.



4 CONTROLLERS 9 Types of Controllers for Efficient Air Conditioning (See P.18-22)

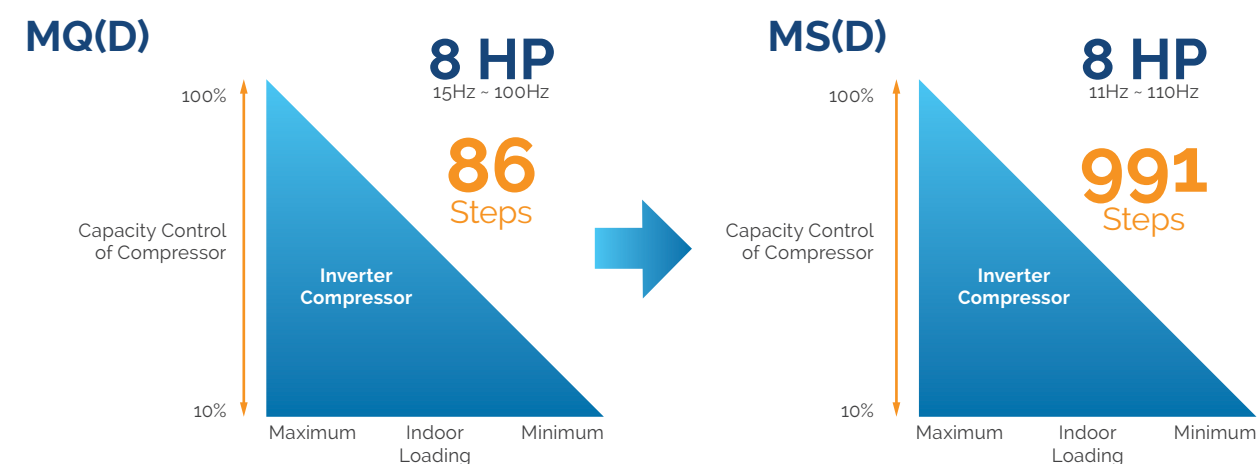


Higher EERs for Less Energy Consumption

Higher Energy Efficiency Ratio (EER), keeps you cool for longer periods while consuming relatively less energy.

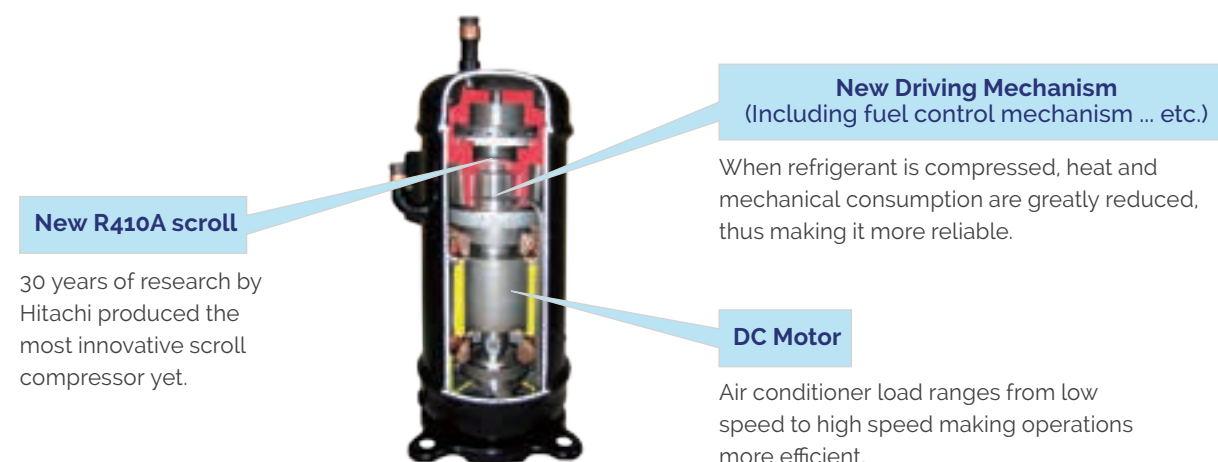
New Research & Development 0.1 Hz / Step Precise Control

High Efficiency DC Inverter Compressor features an IPM tuner that uses vector control technology to control 0.1 Hz/Step accurately so that the compressor automatically adjusts operation under optimal condition, doubling operational efficiency and reducing power consumption.



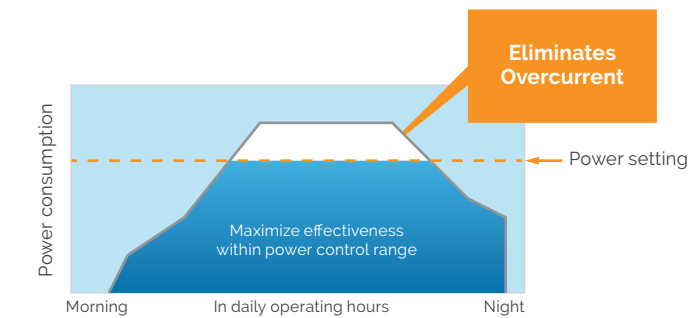
New Research & Development New DC Inverter Scroll Compressor

Hitachi Set-Free features a DC Motor and new driving mechanism that reduces unit weight up to 50% less than conventional compressors. The Inverter DC Motor has the ability to modulate its operating speed increasing its efficiency.



New Research & Development Self-Demand Control

Self-Demand Control feature automatically controls power consumption through self-detecting current and controls it's original external signals to select multiple operation modes for different requirements.

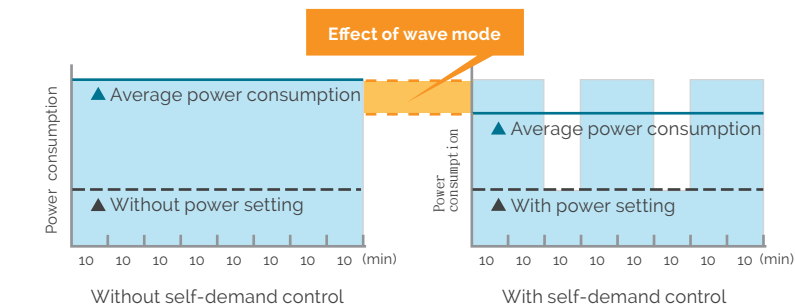


Model	A variety of selection criteria for power consumption
G2 series MS(D)	100%・80%・70%・60%・40%

Note: At self-demand control, operating capacity may be reduced.

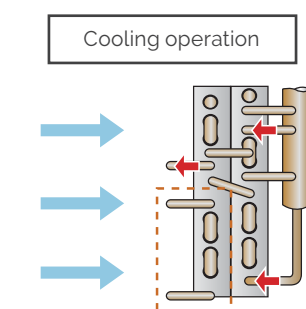
New Wave Mode

The power rationing setup of Wave Mode enables you to turn the unit on or off automatically between intervals to lower power consumption. It is even capable of using minimal electricity to maintain a constant comfortable temperature in running mode.

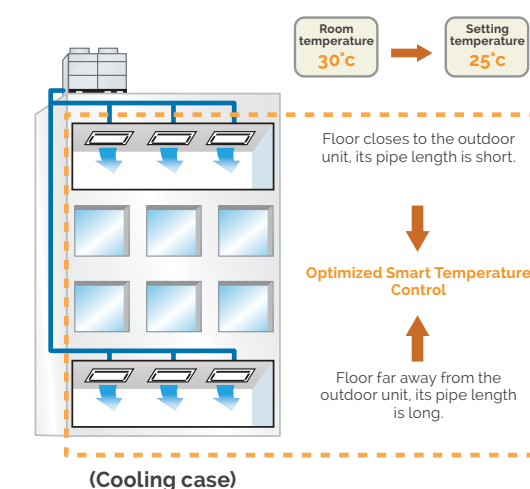


New Research & Development Heat Exchange Optimized to Lower Cooling Waste

Cooling Operation: Newly designed subcooler enhances cooling capacity for more operational efficiency.

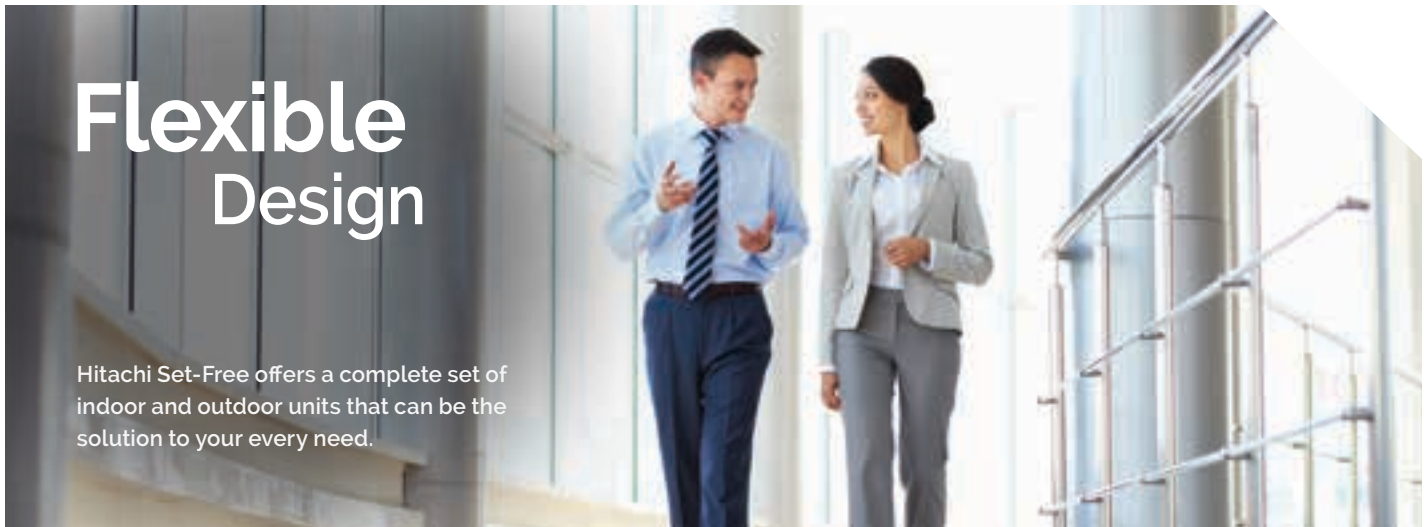


New Research & Development Smart Temperature Control



Smart temperature control automatically adjusts to the right setting so that each floor has an even cooling or heating supply.

Smart Temperature Control can also sense the location of the room, floor number, sunlight exposure and the room capacity to automatically adjust cooling.



Flexible Design

Hitachi Set-Free offers a complete set of indoor and outdoor units that can be the solution to your every need.

Variety of Models

Modular configuration can achieve a maximum of 96HP, meeting virtually any building requirement. A variety of cooling capacities are also available for you to choose from.

A Variety of The Indoor Units

Below are the different types of indoor units to meet different space condition with appropriate indoor combination.

4-Way Cassette Type



Ultra quiet and efficient due to DC Inverter motor.



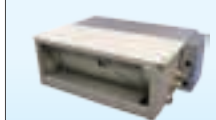
2-Way Cassette Type



Small and lightweight, easy installation.



In-The-Ceiling Type



External static pressure setting lets you control multi-directional air ducts and multi-air outlets



Wall Type



Compact design, excellent performance. No grille panel for a touch of elegance



Inverter Slim Type



Slim profile and simplified piping. Uses minimal floor area



Ceiling Type

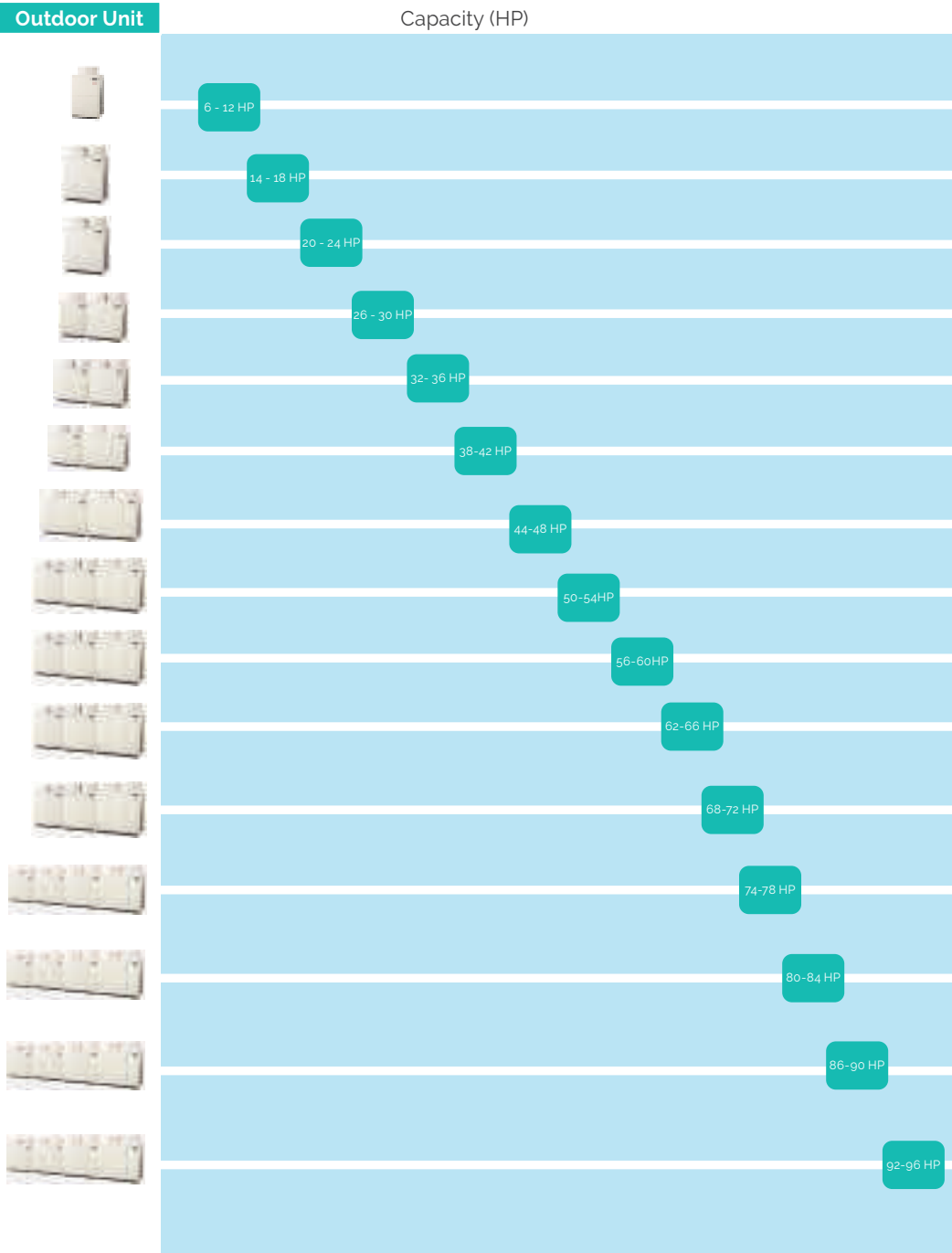


Non-polar transmission to shorten installation time.

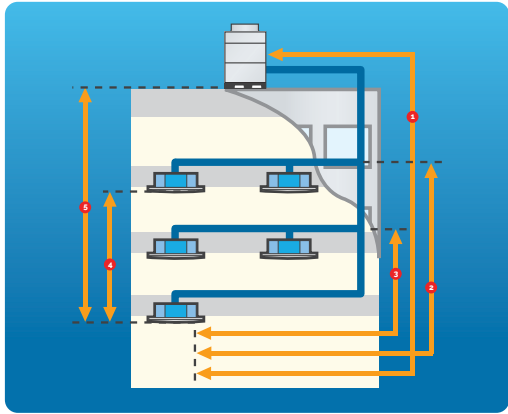


Standard Modular Outdoor Unit For MQ(D) and MSD Models

Only two-core wires and two pipes are required to make a parallel connection for more small horsepower outdoor units, thereby obtaining a large horsepower outdoor unit.



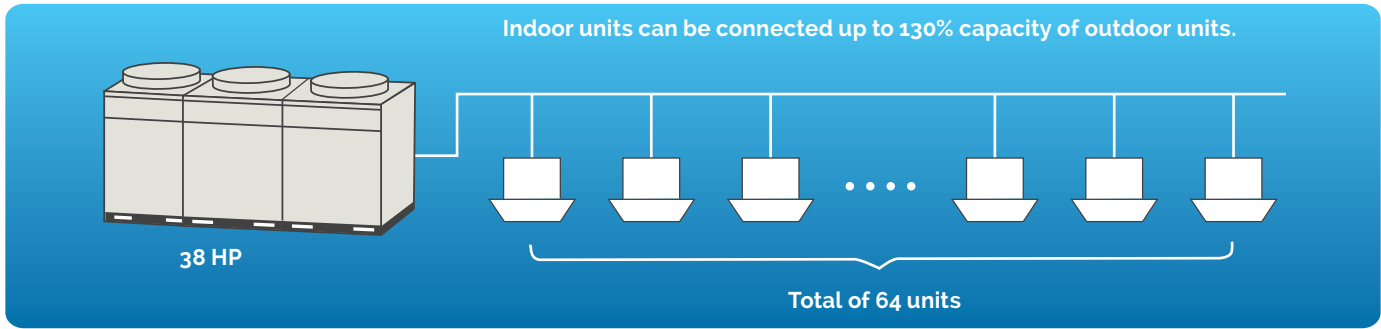
Pipe Length Up to 165m (Equivalent Length to 190m)



		Top-Flow MS(D) Type	
		The number of the indoor unit is less than the recommended maximum combined number of unit	The number of the indoor unit exceed the recommended maximum combined number of unit
1	Total length of piping	1000m	300m
2	Maximum Piping length	Actual Length ①	165m
3		Equivalent length ①	190m
4		Length between first multi-kit and the furthest indoor unit ②	90m
5	Maximum piping lift	length between each multi-kit and each indoor unit ③	40m
6		Between the indoor unit ④	30m
		Indoor unit - Outdoor unit (Upper) ⑤	50/110m *1
		Indoor unit - Outdoor unit (Lower) ⑥	40/110m *2 *3

Notes : 1. For total piping length is 1,000m, the recommended maximum quantity of the indoor units can reference connecting quantity of indoor units.
2.*1: More than 50m, strictly follow corresponding.
*2: More than 40m, strictly follow corresponding.
*3: More than 54HP, Piping Length is 90m

One Outdoor Unit Can Connect with 64 Indoor Units for G2 and Royal Series



Connecting quantity of indoor units is listed as below :

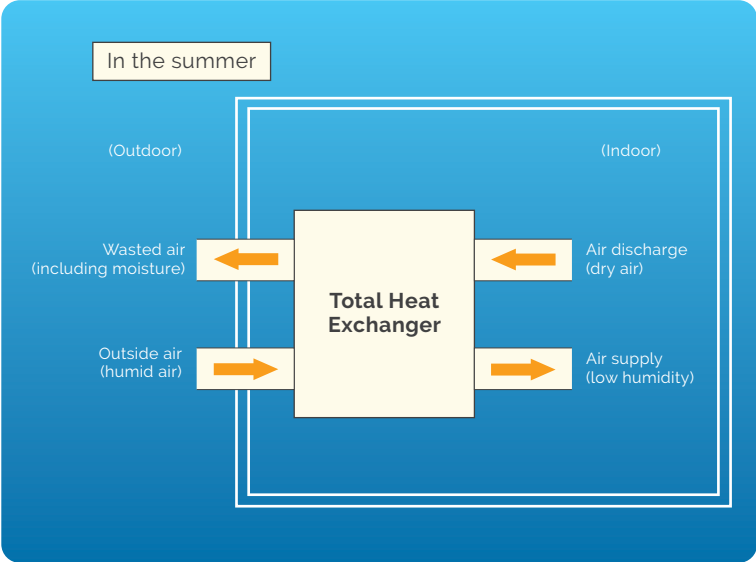
Horsepower of MSD type of outdoor units	6HP	8HP	10HP	12HP	14HP	16-18HP	20HP	22HP	24HP	26HP	28HP	30HP
Max. compatible indoor units	9	13	16	19	23	26	33	36	40	43	47	50

Horsepower of MSD type of outdoor units	32HP	34HP	36HP	38-96HP
Max. compatible indoor units	53	56	60	64

Note: If a value in parentheses () is 1000m of piping and the recommended maximum quantity of the indoor unit is over quantity of the pipe arrangement, the recommended maximum quantity is limited (see explanation in above list)

Power Saving Total Heat Exchanger

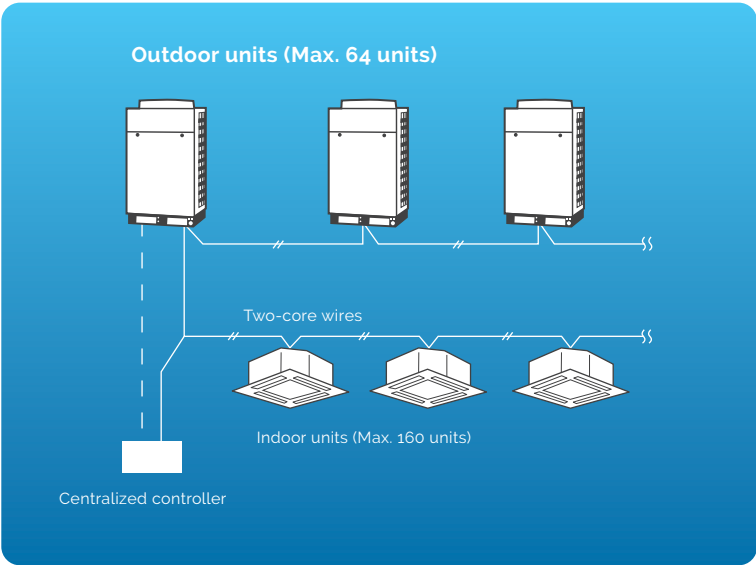
The ventilation system of the Set-Free unit's total heat exchanger can be adjusted to balance the difference between interior and exterior temperature during air exhaust.



H-LINK II Easy and Simple Wiring Configuration

The new wiring configuration for H-LINK II features two-core wired connected to each indoor and outdoor unit (max. 64 refrigerant system sets). This method connects all signal wires of all indoor and outdoor units to the same set of signal wires. In addition, indoor and outdoor units can be connected with a centralized controller.

	H-LINK II
Outdoor units	Max. 64 units
Indoor units	Max. 160 units

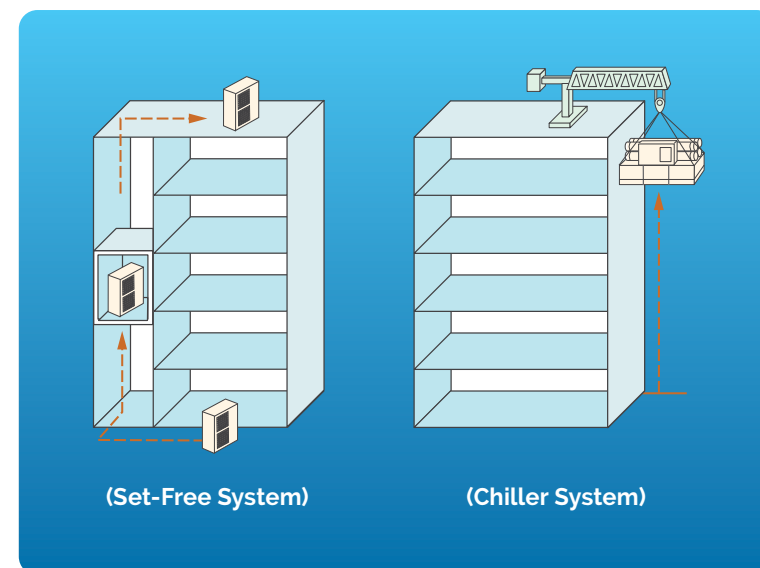


Ease of Installation

Indoor and outdoor units feature compact design to reduce weight and simplify installation

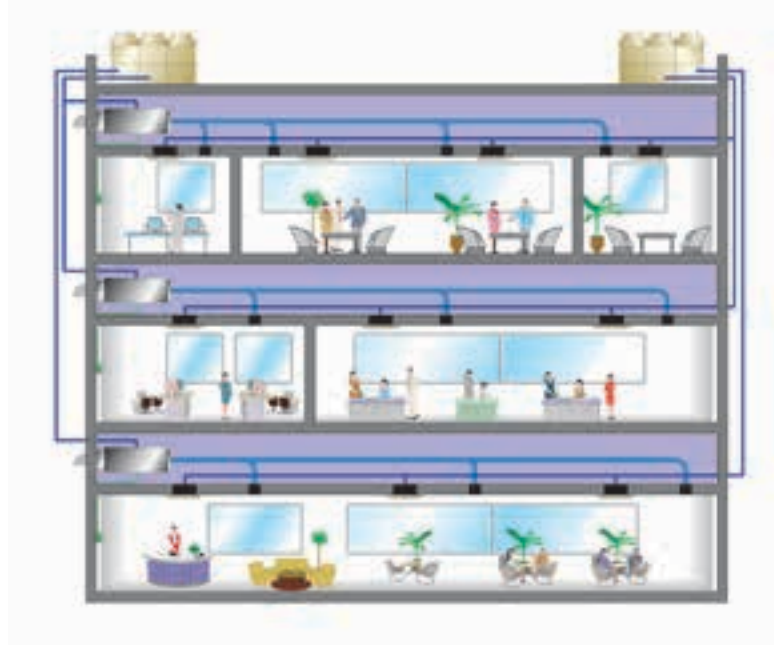
Transport via Elevator

The lightweight outdoor unit can be lifted by an elevator making the use of specialized hooks or apparatus unnecessary.



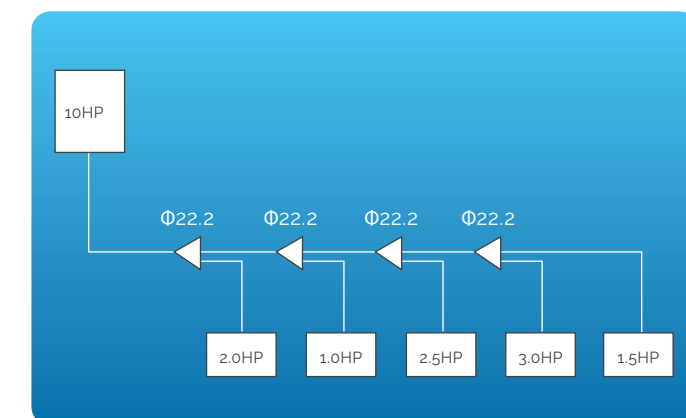
Independent Refrigerant System

Hitachi Set-Free can be installed and tested on each floor even when a building has not yet been constructed completely. Installer can independently test each refrigerant system so full system configuration is not necessary



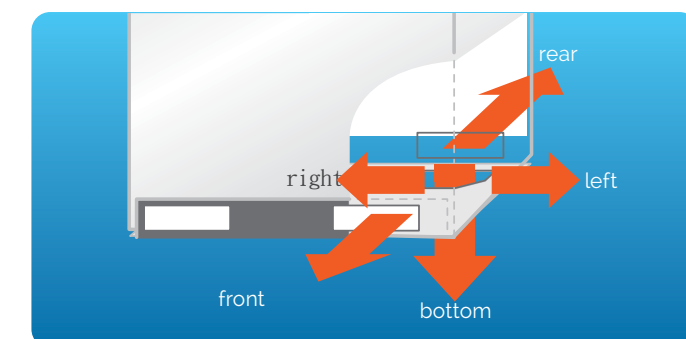
Single Refrigerant Piping for Shorter Installation Time

The innovative single pipe system is possible by transforming the entire piping system into a singular copper pipe (less than 10HP is recommended).



Flexible Refrigerant Piping (for MQ(D) Type)

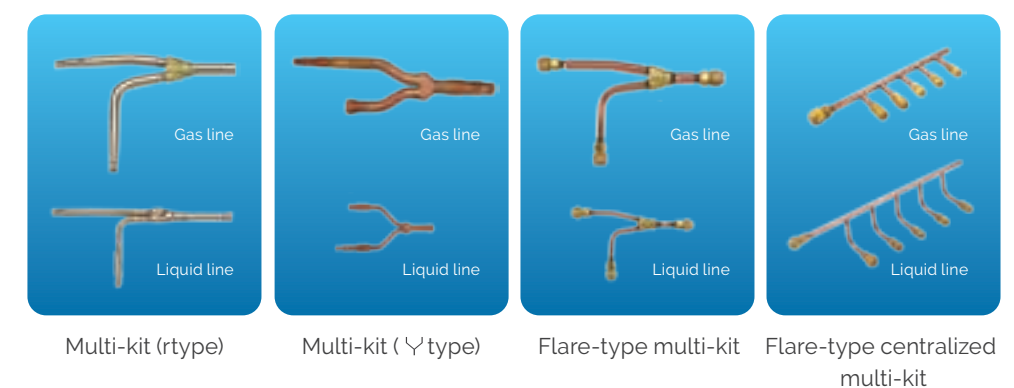
Outdoor piping connection is made easy thanks to its five-way directional flexibility (front, rear, left, right and bottom).



Flexible Multi-Kit Installation

Multi-kit with insulation is included to decrease installation works and increase system reliability.

Note : 1. Maintenance holes of lock-type multi-kit and middle centralized manifold penstock are required.
2. Refrigerant flow noise is reduced by means of Hitachi multi-kit.

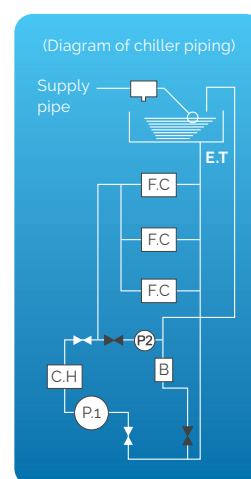
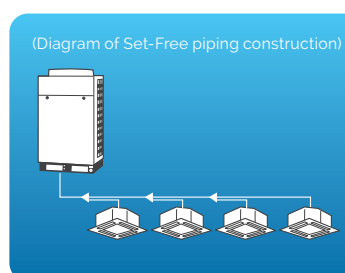


More Comfortable Cooling Experience

Hitachi Set-Free has constant temperature control that enhances the user's cooling experience.

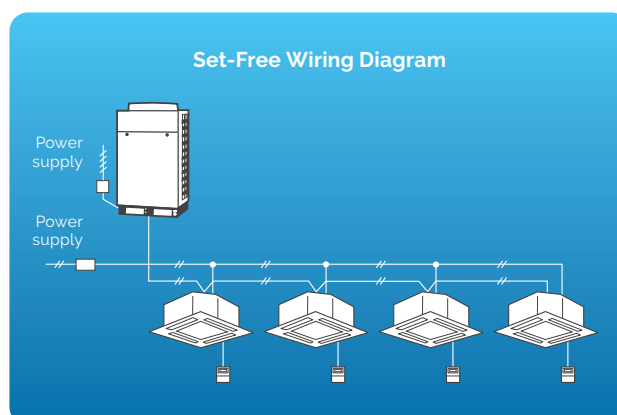
Simplified Piping

Single piping system or reduced piping system reduces construction and installation cost.



Optimized Wiring System

Innovative non-polar two-core wires are applicable to both indoor and outdoor units to connect wiring immediately and effectively. In addition, because of the non-polar transmission, the connecting error between ⊕ and ⊖ ends are minimized to prevent poor transmission.



Automatic Setting

The number of refrigerant systems for indoor units can be set automatically.

Refrigerant Saving

The R410a Refrigerant is not only highly efficient, but eco-friendly too.

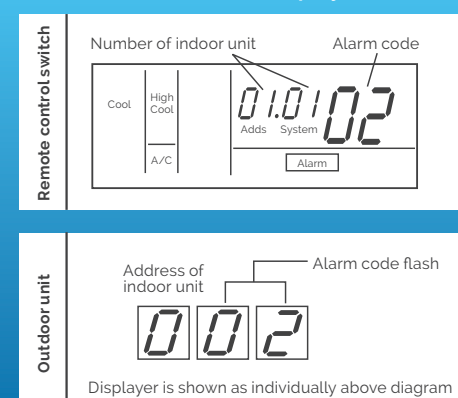
Diameter of pipe	R22 model	R410A model
Φ9.53	0.065 × 30 × 4 = 7.8kg	0.070 × (70 + 30 × 4) = 13.3kg
Φ12.7	0.120 × 70 = 8.4kg	—
Total	16.2kg (100%)	13.3kg (82%)

18% Less Refrigerant Usage

Self-Diagnose Function

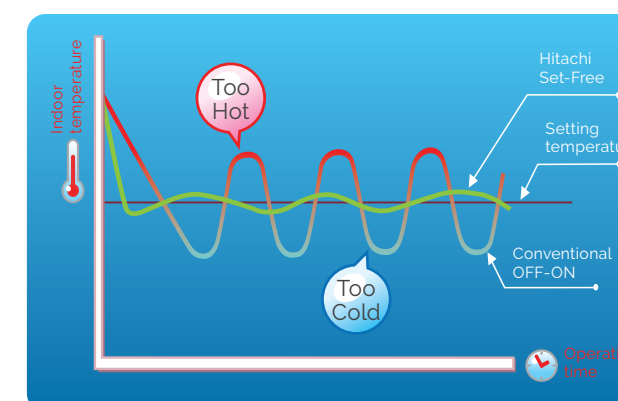
With just one button, you can check the unit's status through the remote control. Vital system information such as pressure differences (high and low) and maintenance status is displayed. It can also detect anomalies in wiring, piping or unit installation.

Alarm code display



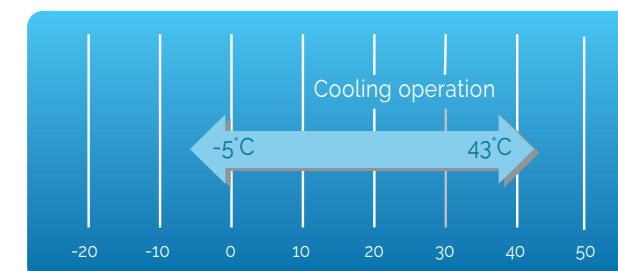
Constant Temperature Control

By employing Hitachi's Inverter Control Technology, the indoor unit detects room ambient temperature and relative temperature of the unit. The operation of the compressor, electronic expansion valve and refrigerant flow is automatically modulated, offering maximum efficiency.



Wide Range of Operation

Hitachi Set-Free has the capacity to operate within -5 to 43°C.

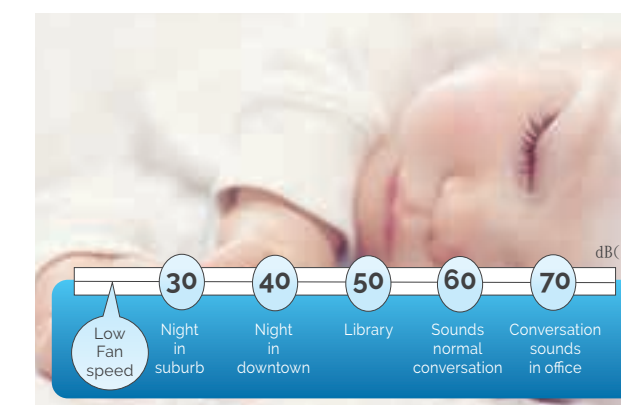


Smart Restart Function

During power outages, Hitachi Set-Free has a restart function (pre-setting required) that can avoid re-setting trouble.

Low Noise

Using computational fluid dynamics (CFD) analysis techniques, Hitachi Set-Free decreases air impedance in each of the indoor and outdoor units for optimum noise levels during operation.



*Tested in low fan speed of RPI-36NR.

*The sound pressure is measured at 1.5m below a center of each units.

*The sound pressure level is measure in an anechoic chamber so that reflected sound should be taken into consideration in the field.

Advanced Ventilation System

Being in a closed space for a long time may cause people to become sluggish, stressed or fatigued, which can cause lower work efficiency.

The ventilation system features a total heat exchanger which can automatically enhance the air quality hence create a more comfortable workplace environment.

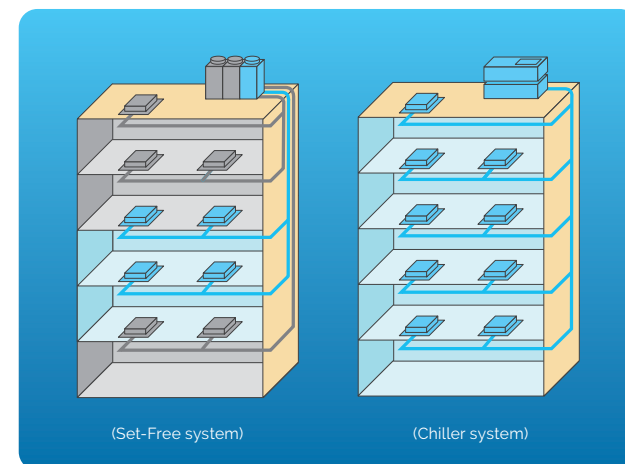


Independent Unit Operation

Hitachi Set-Free enables all units to operate independently based on your individual requirements.

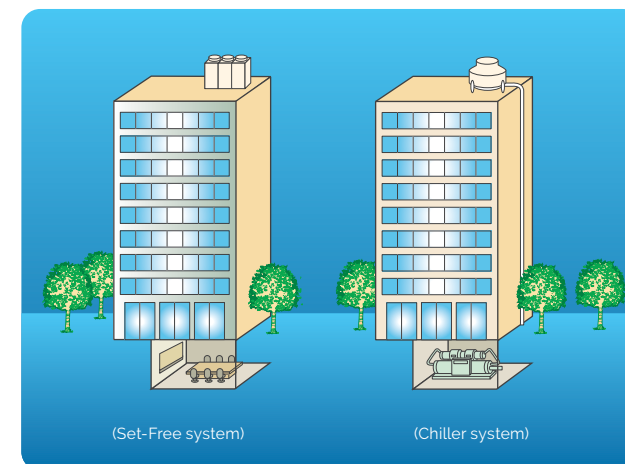
Individual Partition Area Control

Hitachi Set-Free can control individual partition areas and the total operating load of outdoor units to avoid unnecessary operations in unoccupied areas.



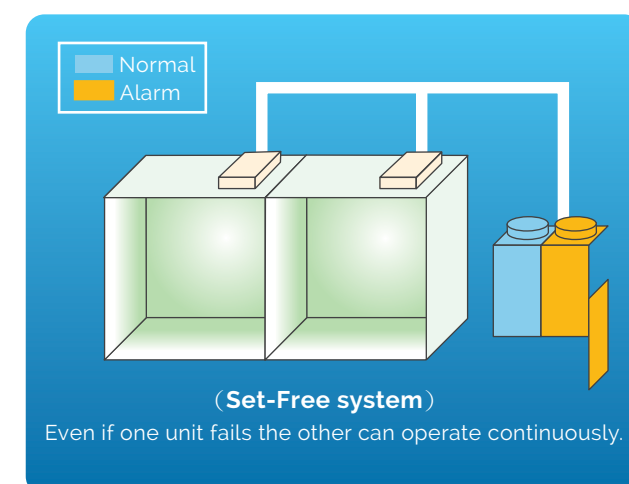
Space-Saving Installation

The small and lightweight outdoor units can be installed on a staircase landing or balcony.



Emergency Backup Operation

Backup operation function prevents the system from going to a complete halt when an outdoor unit fails.



Flexible Refrigerant Piping

Connecting quantity of indoor units can be up to 130% quantity of outdoor units.

A Model for Every Room

Outdoor units are available from 4HP to 54HP, while indoor units are available in 6 varieties that can virtually meet any room/floor, size, condition or requirement.

Network System

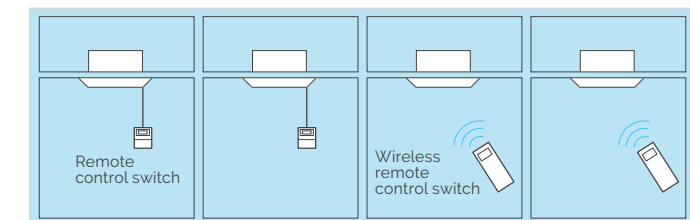
A Central Management Network System can inform its users the operating state through a centralized controller or PC. The system can monitor the operation of air conditioners in real time and also set operating schedules and individual temperatures to make management easy.

Controlling Systems

The two-core wiring connections of H-LINK II is compatible to users' every need to build various controlling systems.

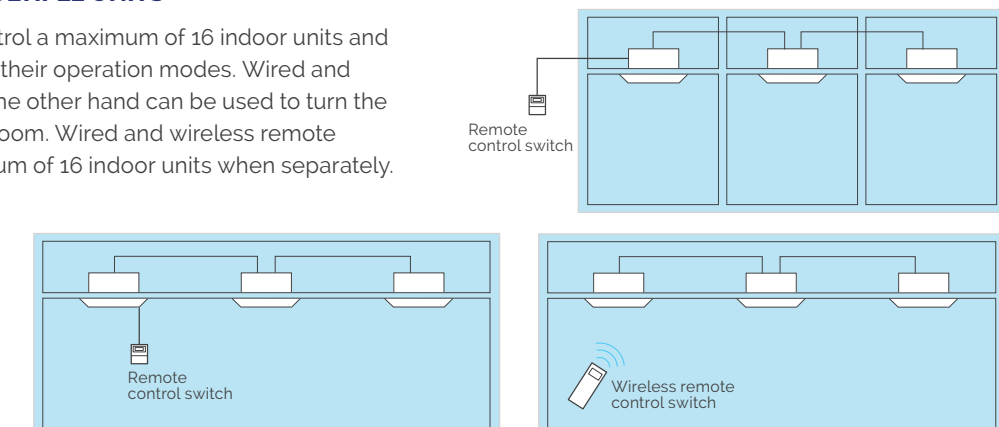
REMOTE CONTROL FOR INDIVIDUAL OPERATIONS

Individual indoor units installed in each room can be controlled by either a wired or wireless remote control.



ONE CONTROLLER FOR MULTIPLE UNITS

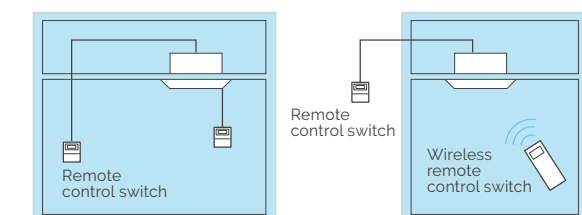
Fixed remote control can control a maximum of 16 indoor units and turn the unit on/off or modify their operation modes. Wired and wireless remote controls on the other hand can be used to turn the unit on/off units in the same room. Wired and wireless remote controls can control a maximum of 16 indoor units when separately.



ONE UNIT WITH TWO REMOTE CONTROLS

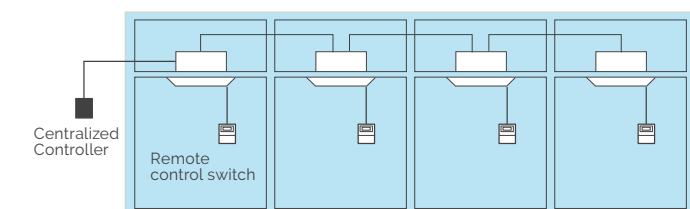
There are two ways to control an indoor unit using two remote controls:

- 1) Control a single indoor unit using two wired remote controls
- 2) Control a single indoor unit using a wired remote control and a wireless remote control



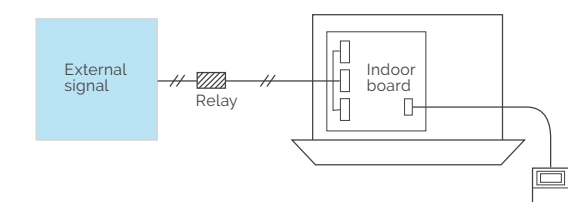
CONTROL REMOTE CONTROLS VIA A CENTRALIZED CONTROLLER

The centralized controller can control not just the indoor units in different rooms, but also the wired remote controls as well.



CONNECTION WITH LOCAL CONTROLLER

Signal conversion is available by ways of relay and an external controller that can turn the indoor units on/off and monitor the system's operation.



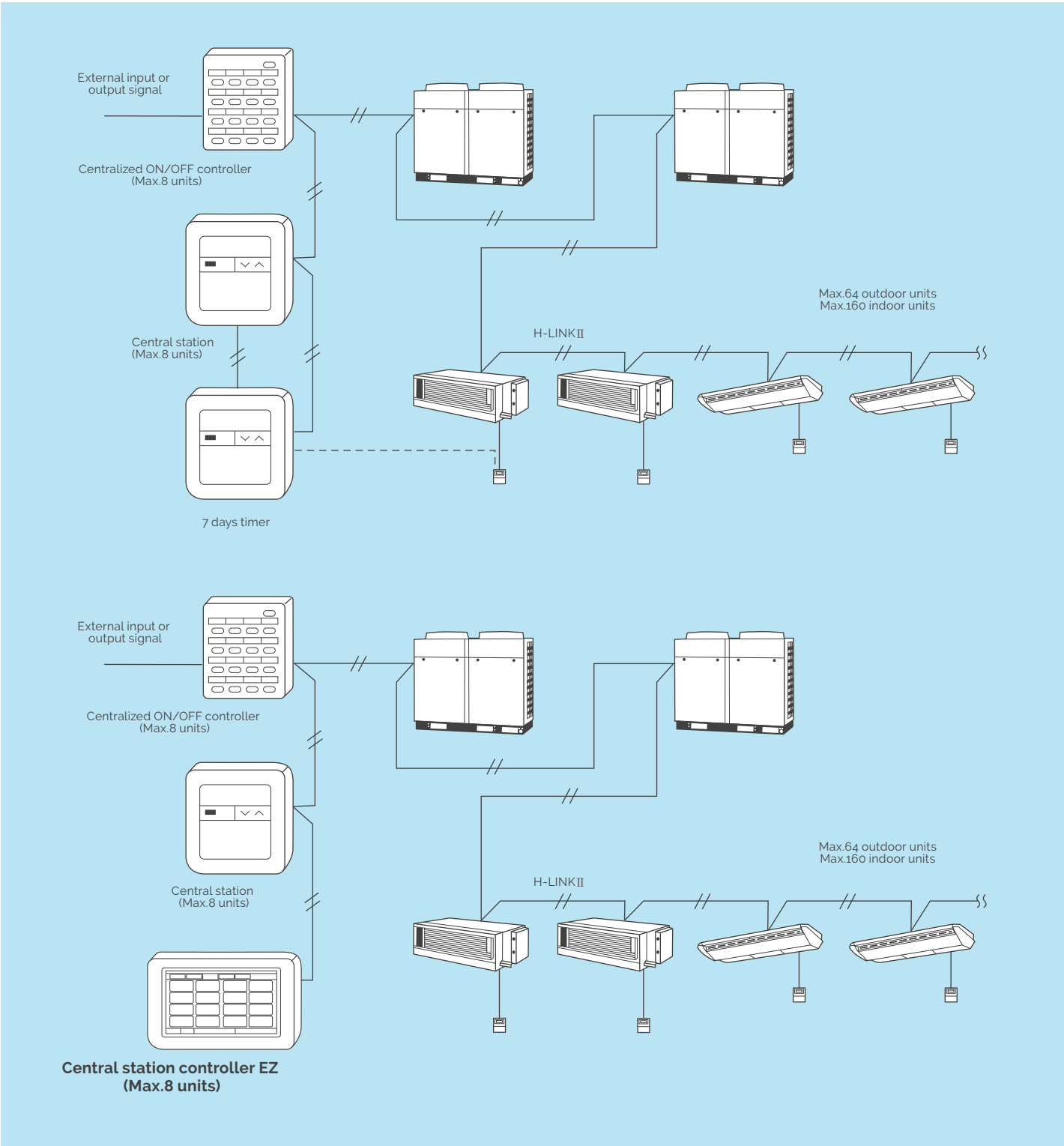
CS-NET For More Details, Please Contact Your Hitachi Sales Officer

CS-NET can synchronize with the centralized controller, PC or management computer in the building to monitor operation and check any anomaly in the system.

* Applying the wiring connections of H-LINK II, such as non-polar two-core wires, it can connect all indoor units together to simplify construction.

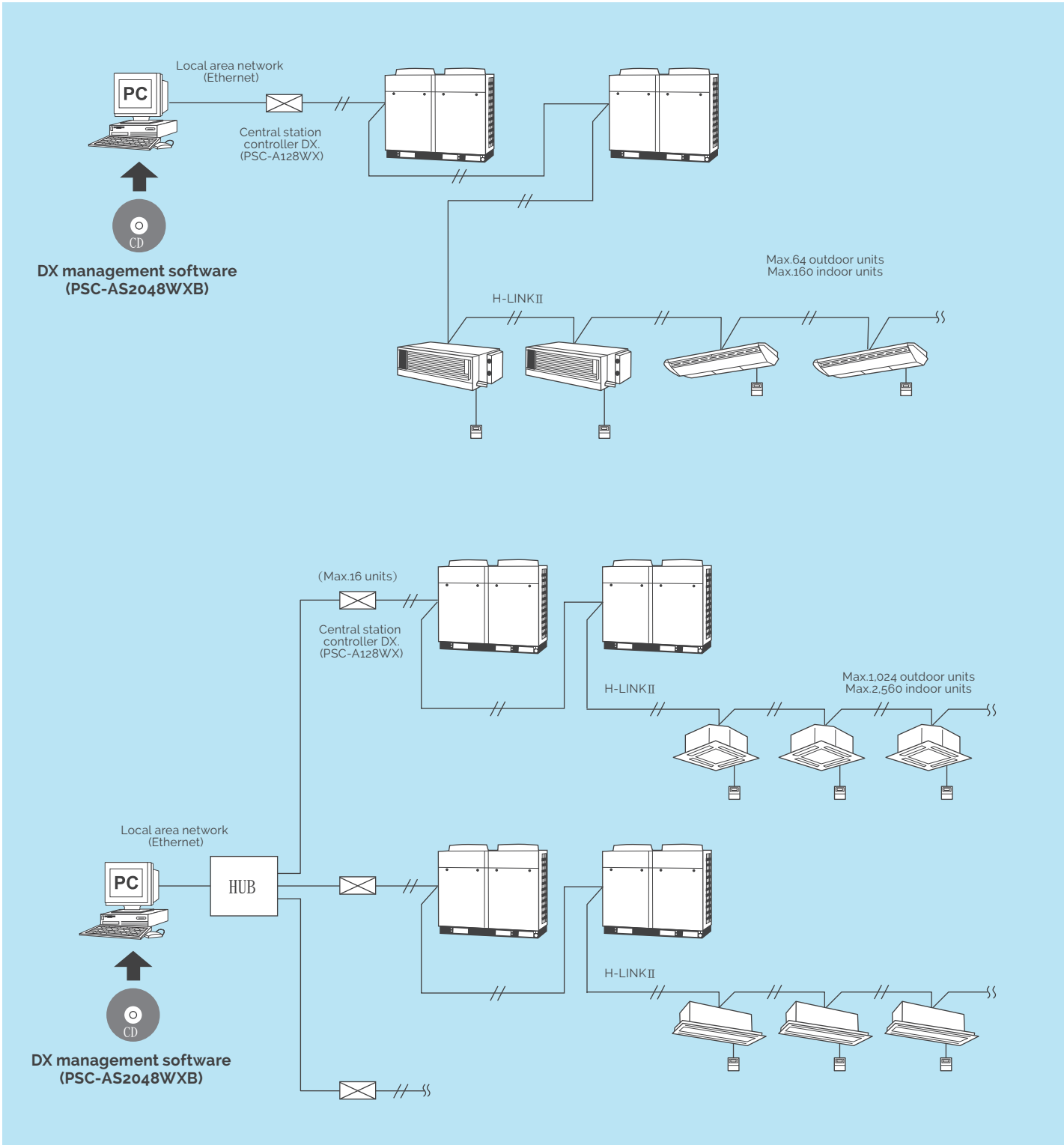
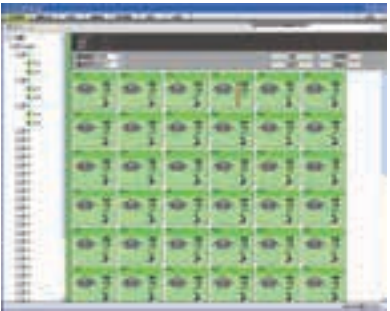
1. Network Management System of Centralized Controller

Transmission lines between indoor units, outdoor units and the centralized controller are combined to form a public network, that simplifies the wiring system to reduce the risk of system errors.



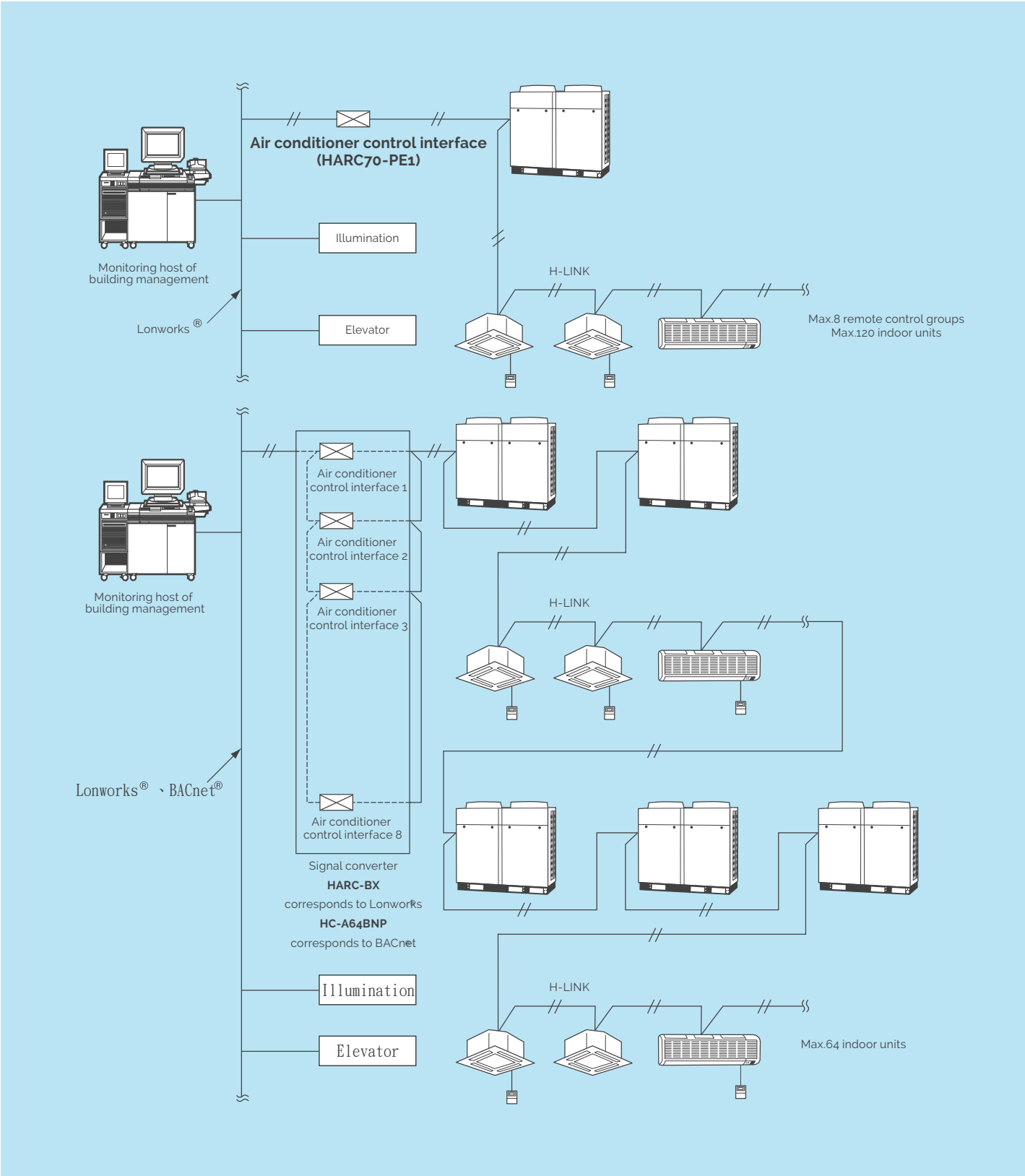
2. Network Management System of PC Framework

- * Parallel connection of 16 air converter control interface (PSC-A128WX) by means of one set of management software to control 1,024 outdoor units and 2,560 indoor units.
- * Provides configuration diagram of local air conditioners
- * Monitor and manage operations via LAN
- * Vivid image interface to easily display the operation and temperature of each indoor unit
- * 16 operating modes can be set per day for weekly schedule; 5 specific dates can be set for annual schedule
- * Operates with central station controller EZ, central, and centralized on/off controller
- * Schematic diagram for calculating ratio, operating time and temperature setting is used to facilitate air conditioner operations



3. Building Management System

The building management system can connect with the management computer in the building to integrate with the central air conditioning systems. Specific signal converters lets Hitachi units connect with an open network (Lonworks®, BACnet®) to meet the demands of modern establishments.



Centralized Controller

Central station controller EZ



PSC-A64GT

Independently controls 64 groups of indoor units.

- 8.5-inch touch screen to display information clearly and facilitate operation.
- Controls a maximum of 160 indoor units of 64 groups in 4 blocks.
- Provides basic control functions
- Remote operation, urgent stop, setting operation and fault signals are available via external input or output signal.
- Create daily operation settings such as temperature control or power off.
- Display cumulative operating time of each month of each group to manage energy use.
- Self-demand control can limit power consumption in specific time and save energy.
- Two-core signal wire for easy installation (Max wiring length 1,000m).

Central centralized controller



PSC-A64S

Independently controls 64 groups of indoor units.

- Control up to 160 indoor units of 64 groups in 4 blocks.
- Provide basic control functions
- Three functional settings based on user requirement.
- Remote operation, urgent stop, setting operation and alarm signals are available via external input or output signal.
- Matches with other centralized controllers.
- Two-core signal wire for easy installation (max wiring length 1,000m).

Standard centralized controller



PSC-5S

Can be used as a small centralized controller for remote controller groups.

- Controls up to 16 groups of wired remote controls (Max.128 indoor units).
- Provides basic control functions.
- Remote operation, urgent stop, setting operation and alarm signals are available via external input or output signal.
- Connects up to 8 centralized controllers in H-LINK.
- Matches with other centralized controllers.
- Two-core signal wire for easy installation (Max wiring length 1,000m).

Centralized ON/OFF controller



PSC-A16RS

Simultaneously or independently controls 16 groups of wired remote controls.

- Controls up to 16 groups of wired remote controls (Max.160 indoor units).
- Centralized controller for displaying operation status.
- Connects up to 8 centralized controllers in H-LINK.
- Can be used with other centralized controllers (PSC-A64S1, PSC-5S).
- Matching with remote control or wireless remote control is required.
- Two-core signal wire for easy installation (Max wiring length 1,000m).

7 days timer


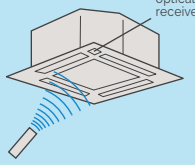
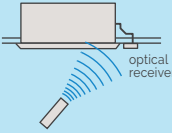
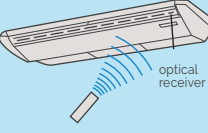
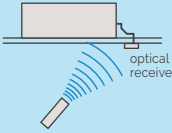





PSC-AIT

Operation based on daily set schedule in a week.

- Switches two modes of weekday setting.
- Users can set up to 3 times of operations every day.
- Digital display to show and confirm setting operation and content easily.
- Restores original setting mode within three days after power failure.
- Matches with other centralized controllers or wired remote controls.
- V (Max wiring length 1,000m).

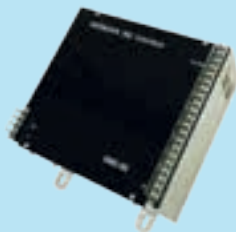
Remote Controllers

Type \ Model	Cassette Type (4 ways) (RCI)	Cassette Type (2 ways) (RCD)	Ceiling Type (RPC)	In-The-Ceiling Type (RPI)	Wall Type (RPK)
Wireless remote control switch  PC-LH3A	<ul style="list-style-type: none">Matching with optical receiver is required.Optical receiver is fixed in panel. 	<ul style="list-style-type: none">Matching with optical receiver is required.Optical receiver is fixed in panel. 	<ul style="list-style-type: none">Matching with optical receiver is required.Optical receiver is fixed in panel. 	<ul style="list-style-type: none">Matching with optical receiver is required.The optical receiver can be fixed at desired position. 	<ul style="list-style-type: none">Optical receiver is provided.
Remote control switch  PC-AR	Applicable to all models				
High-performance wired remote control switch  PC-AREV	Applicable to all models				
Wired controller for hotels  PC-ARH	Applicable to all models				

Air Conditioner Control Interface

 PSC-A128WX	<ul style="list-style-type: none">Controls up to 64 outdoor units and 160 indoor units in the H-LINK IIPC (OS : Windows XP) can be used as a centralized control, daily. Schedule setting, and monitoring of air conditionerCentral station controller DX management software (PSC-AS2048WXB) is required.Remote operation, urgent stop, setting operation and alarm signals are available via external input or output signalOne computer can connect up to 16 of PSC-A128WX and control 2,048 groups and 2,560 indoor unitsProvides configuration diagram of field conditioner to facilitate viewing of user interfaceFeatures air conditioner use ratio, operating time, and setting temperature of air conditioner to save energy
 HARC70-P1	<ul style="list-style-type: none">Controls up to 8 groups of wired remote controlsCompatible with an open network (Lonworks®) to enhance building management and operationThe air conditioner must match with remote controlSimplified wiring through H-LINKNot compatible with other centralized controllers
 HC-A64BNP	<ul style="list-style-type: none">Controls up to 64 indoor unitsCompatible with an open network (BACnet®) to enhance building management and operationThe air conditioner must match with remote controlSimplified wiring through H-LINK
 HC-A32MB	<ul style="list-style-type: none">Controls up to 32 indoor unitsCompatible with an open network (MODbus) to enhance building management and control operationSimplified wiring through H-LINK
 HC-A8LAN	<ul style="list-style-type: none">Controls up to 8 groups of wired remote controlsNot compatible with other central controllersSimplified wiring through H-LINKCompatible with an Ethernet® open network to enhance building management and control operation.

Air Conditioner Control Interface

 HARC-BX	<ul style="list-style-type: none">Controls up to 64 groups of wired remote controlsAir conditioner control interface includes 8 sets of signal convertersCompatible with an open network (Lonworks®) to enhance building management and control operationConnects related parts of H-LINK wiring system according to customer's monitoring demandsMonitoring and controlling at high capacity is available for large scale systems.Corresponds to wired remote controlNot compatible with other central controllers
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★Trademark of Lonworks® is registered in USA and other countries by Echelon Corporation.
★Trademark of Windows® is registered in USA and other countries by Microsoft Corporation.

Controlling System

Functions		Individual Control				Individual, Regional Control					Intelligent Management				
		Remote Control				Centralized Controller					Air conditioner Control Interface				Air conditioner Control Interface + Management Software
		PC-AR	PC-ARF	PC-ARH	PC-LH3A + (PC-ALH·ALHD· ALHP·ALHZ)	PSC-A16RS	PSC-A64S	PSC-5S	PSC-AIT	PSC-A64GT	HC-A64BNP	HARC70-P1 HARC-BX	HC-A32MB	HC-A8LAN	PSC-A128WX + PSC-AS2048WXB
		Remote control switch	High-performa nce wired remote control	Wired controller for Hotels	Wireless remote control + (Optical receiver)	Centralized ON/OFF controller	Central station	Standard centralized controller	7 days timer	Central station controller EZ	BACnet Air conditioner control interface	Lonworks Air conditioner control interface	MODbus Air conditioner control interface	LAN Air conditioner control interface	Central station controller DX + Central station controller DX management software
Setting function	Operation/Power off	○	○	○	○	○	○	○	x	○	○	○	○	○	○
	Switching operating modes	○	○	○	○	x	○	○	x	○	○	○	○	○	○
	Temperature	○	○	○	○	x	○	○	x	○	○	○	○	○	○
	Fan speed setting	○	○	○	○	x	○	○	x	○	○	○	○	○	○
	Limitation of remote control	○	○	x	x	x	○	○	x	○	○	○	x	○	○
	Airflow angle setting	○	○	○	○	x	○	○	x	○	x	○	○	○	○
	Resetting display of filter cleaning	○	○	x	○	x	○	○	x	○	○	x	x	○	○
	Operation/Power off to all machines	X (Note)	X (Note)	X (Note)	X (Note)	○	○	○	x	○	—	○	—	—	○
Monitoring function	Operating status	○	○	○	○	○	○	○	x	○	○	○	○	○	○
	Operating mode	○	○	○	○	x	○	○	x	○	○	○	○	○	○
	Temperature setting	○	○	○	x	x	○	○	x	○	○	○	○	○	○
	Fan speed	○	○	○	x	x	○	○	x	○	○	○	○	○	○
	Air flow	○	○	○	x	x	○	○	x	○	x	○	○	○	○
	Alarm code	○	○	○	○	x	○	○	x	○	○	○	○	○	○
	Display of filter cleaning	○	○	x	○	x	○	○	x	○	○	x	x	○	○
Daily function	Time set	○	○	x	○	△	△	△	○	○	—	—	—	—	○
	Daily operation	△	○	x	x	△	△	△	○	○	—	—	—	—	○
	Appointed date operation	△	○	x	x	△	△	△	○	○	—	—	—	—	○
Others	Urgently stopping signal input	x	x	x	x	○	○	○	x	○	x	x	x	x	○
	Calculating fee of other power consumption	x	x	x	x	x	x	x	x	x	x	x	x	x	○
	H-LINK II	○	○	○	○	○	○	x	○	○	○	x	○	○	○
Notes					Mode of optical receiver: ● PC-ALH(4-Way Cassette Type) ● PC-ALHD(2-Way Cassette Type) ● PC-ALHP(Ceiling Type) ● PC-ALHZ(In-The-ceiling Type, Wall Type)				● Operating schedule is set by matching with wired remote control or centralized controller.		● Provides signals to connect with BMS host.	● Provides signals to connect with BMS host.	● Provides signals to connect with BMS host.	● Provides signals to connect with BMS host.	● Matches with personal computer or tablet PC is required. ● Contains calculation of the ratio of easy air conditioner using.

△: Combination with 7 days timer is required. —: Setting in host system is required.

(Note): As multiple indoor units match with one common remote control, the entire indoor unit system can be operated/stopped.



Set-Free G2

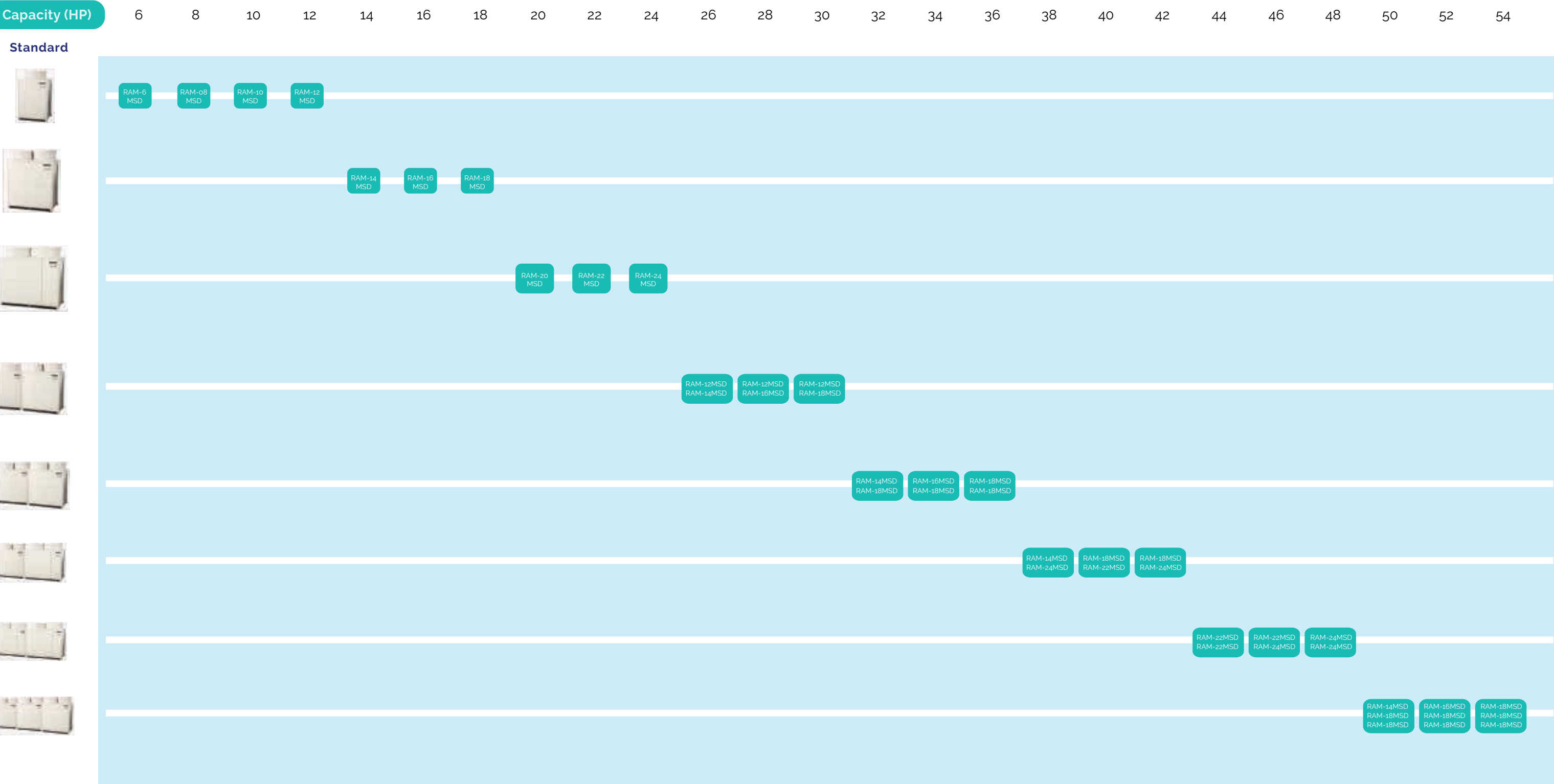
Compact and Powerful Air Conditioning Solution

HITACHI G2

Full Range of Products

● **Outdoor Unit** Outdoor units start from 6HP.
Modular configuration can be set up to 96HP.

R410A Refrigerant

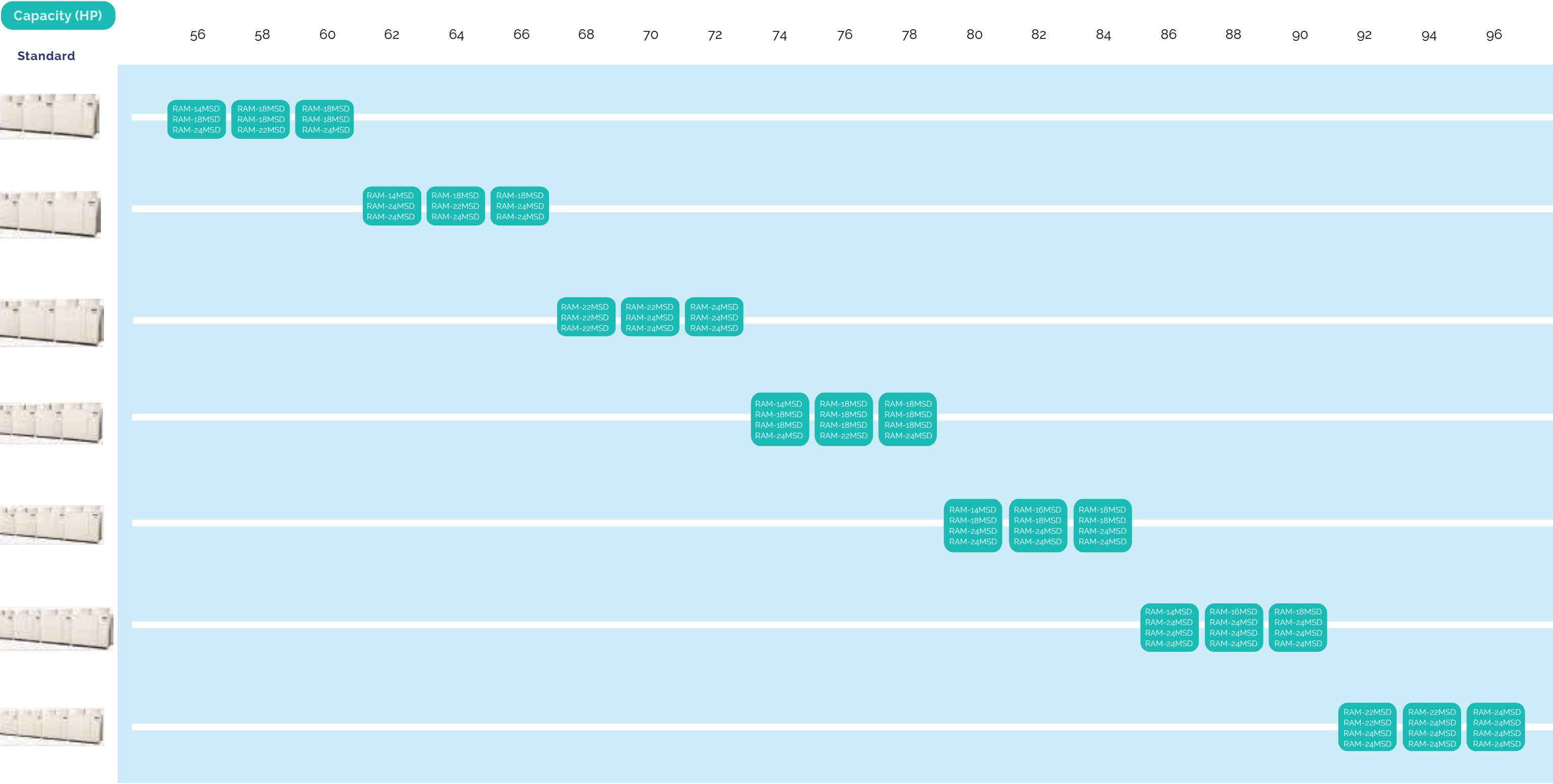


HITACHI G2

Full Range of Products

● **Outdoor Unit** Outdoor units start from 6HP.
Modular configuration can be set up to 96HP.

R410A Refrigerant





POWER SAVING

DC INVERTER SCROLL COMPRESSOR

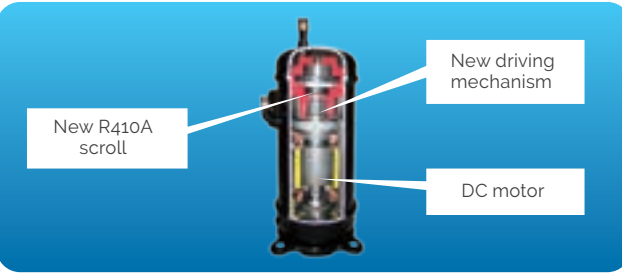
With the combination of a DC motor and a new and highly efficient driving mechanism, the outdoor unit reduced weight up to 50% less than conventional units.

New driving mechanism

The new driving mechanism can enhance reliability because it decreases mechanical movement when the refrigerant is compressed.

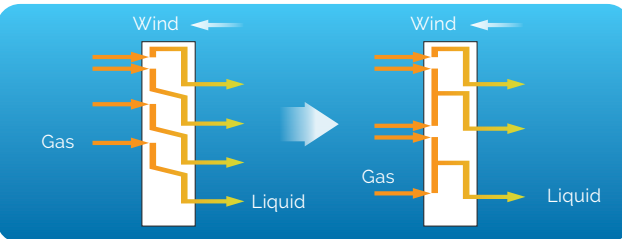
1Hz / Step precise control

High-efficiency DC inverter compressor applies vector technology to control the compressor 1Hz/step accurately so that it can automatically adjust operation for optimal comfort.



OPTIMIZED HEAT EXCHANGER

2 in 1 path arrangements (such as fluid path 2 and airflow path 1) were developed to prevent damage in the heat exchanger to further enhance its performance.

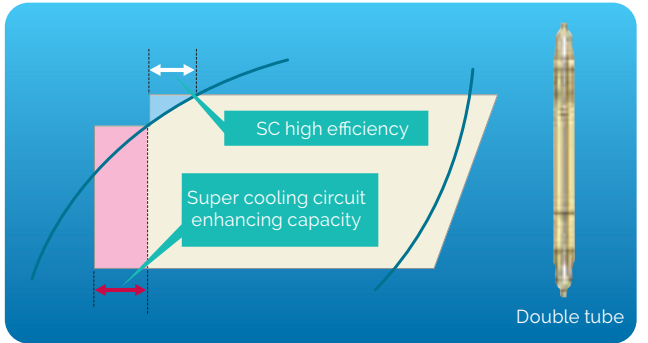


ENERGY SAVING

With the combination of the optimized heat exchanger, the optimized heat transfer pipe for the refrigerant, and efficient sub cooling circuit; the Energy Efficiency Ratio (EER) is increased. Higher EERs mean bigger savings.

SUPER COOLING CIRCUIT

High efficiency double pipe heat exchanger (for MQ(D) type only) enhances overall performance.



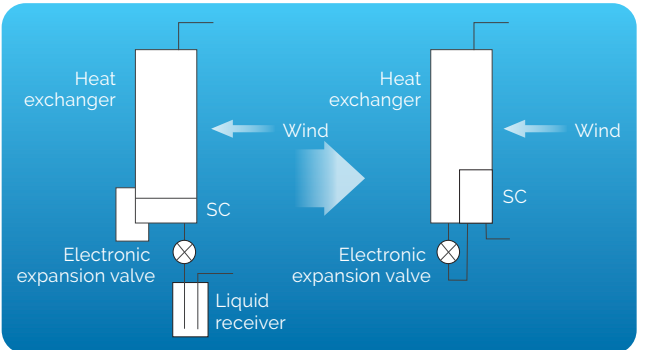
Inverter DC fan motor

New control board distributes cooling load efficiently during low or high speeds.



Efficient Sub Cooler Design

The sub cooler is placed in front of the unit for optimum performance.



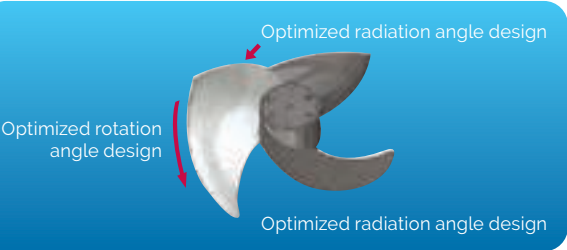
Environment Friendly

Improved cooling cycle reduces the amount of cooling waste to minimize environmental impact.

INSTANT COMFORT

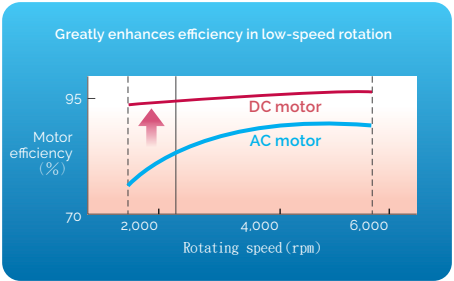
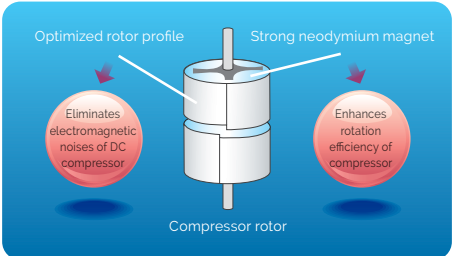
HIGHLY EFFICIENT FAN

- New three wing ultra-flow fan with 644mm diameter
- Low rotation, low noise and low power consumption



QUIET OPERATION

- Inverter DC motor design enhances operational efficiency
- Compressor rotor generates electromagnetic interference to eliminate electromagnetic noise



OVERVOLTAGE PROTECTION RELAY (Optional)



Additional feature that protects the unit from damage caused by overvoltage. Abnormal overvoltage may be caused by various reasons including sudden power interruptions, lightning impulses, switching impulses, etc.

EASY INSTALLATION

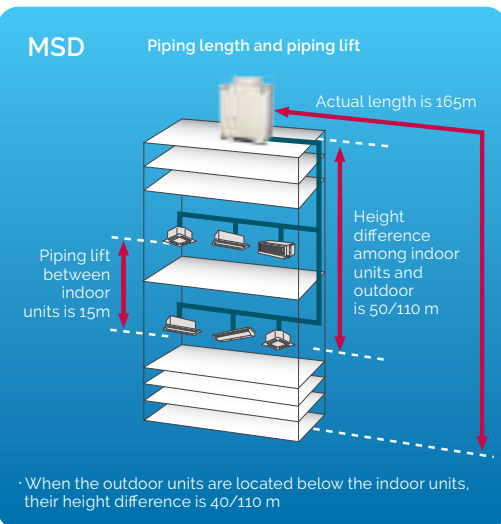
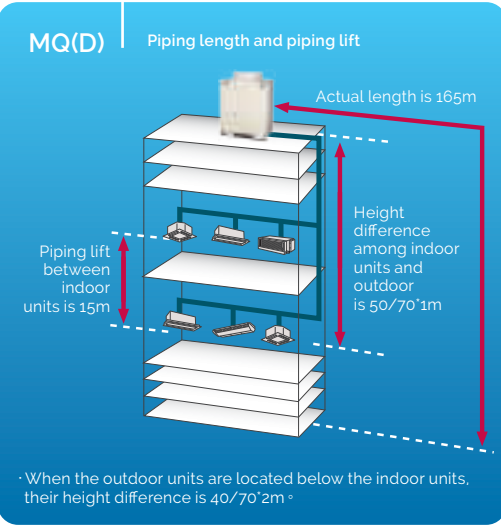
LIGHT WEIGHT DESIGNS TRANSPORTED BY ELEVATOR

- Compact and lightweight unit can be delivered via elevator easily.
- Integrated unit casing allows compressors to be arranged side by side.





FREE INSTALLATION LONG PIPING

Maximum pipe length is 165m, and first branch pipe to the farthest indoor unit can reach up to 90m.




GENERAL DATA

MS(D) Model (STANDARD)

Model												
				RAM-6MS(D)	RAM-8MS(D)	RAM-10MS(D)	RAM-12MS(D)	RAM-14MS(D)	RAM-16MS(D)	RAM-18MS(D)		
Power				MS: 3 phase 4 wire, 220V 60Hz MS(D): 3 phase 4 wire: 360V 60Hz								
Outer Dimension (WxHxD)			mm	950 x 1.675 x 765				1.210 x 1.675 x 765				
Packaged Dimension (WxHxD)			mm	985 x 1.780 x 805				1.255 x 1.780 x 805				
Cooling Capacity			kW	16.0	22.4	28.0	33.5	40.0	45.0	50.0		
Cooling Capacity (Middle)			kW	7.6	10.5	13.2	15.7	18.8	20.5	23.5		
Heating Capacity			kW	18.0	25.0	31.5	37.5	45.0	50.0	56.0		
Free Blow	Cooling	Power Consumption	kW	3.38	5.51	8.17	9.83	13.04	15.24	17.96		
		Power Consumption (Middle)	kW	1.36	1.78	2.38	3.03	3.25	3.73	4.37		
		Running Current	A	5.7	9.3	13.8	16.6	22.0	25.7	30.3		
		CSPF	Wh/Wh	6.10	6.09	5.56	5.28	5.56	5.29	5.13		
		Outdoor Unit CSPF	Wh/Wh	6.63	6.57	6.15	5.55	6.03	5.68	5.52		
		Power Consumption Level	—	1	1	1	1	1	1	1		
	Heating	Power Consumption	kW	5.10	5.81	7.80	9.52	12.13	13.68	16.51		
		Running Current	A	8.60	9.80	13.20	16.10	20.50	23.10	27.90		
Ducted	Cooling	Power Consumption	kW	3.98	6.12	8.99	10.85	14.35	17.44	20.5		
		Power Consumption (Middle)	kW	1.49	2	2.61	3.42	4.04	4.84	5.44		
		Running Current	A	6.7	10.3	15.2	18.3	24.2	29.4	34.6		
		CSPF	Wh/Wh	5.46	5.44	5.06	4.71	4.62	4.22	4.22		
		Outdoor Unit CSPF	Wh/Wh	5.96	5.92	5.59	5.27	5.03	4.52	4.5		
	Heating	Power Consumption	kW	5.25	6.39	8.92	9.97	13.34	15.35	17.35		
		Running Current	A	8.9	10.8	15.1	16.8	22.5	25.9	29.3		
Power Factor			%	90	90	90	90	90	90	90		
Starting Current			A	20				20				
Noise			dB(A)	54	55	57	58	61	62	63		
Cooling / Heating System	Compressor Output (pole)		kW	6.3(6)	6.3(6)	6.3(6)	6.3(6)	6.3 (6)	6.3 (6) x 2	6.3 (6) x 2		
	Oil Heater Output x Q'ty		W	37.3 x 3								
	R410A Charge		kg	5.0			7.2	8.9	9.9	10.7		
	Refrigerant Oil (charge)		L	FVC68D(6.0)				FVC68D (6.9)	FVC68D (7.9)			
	Expansion Device		—	Electronic Expansion Valve								
	Cooling / Heating Shift Device		—	4 Way Valve								
Fan System	Fan Type x Q'ty		—	Propeller Fan (3 blade) x 1				Propeller Fan (3 blade) x 2				
	Air Flow Rate		m ³ /min	155	165	170	190	239	256			
	Motor Output (pole)		kW	0.75(8)	0.75(8)	0.75(8)	0.75(8)	0.75(8) x 2	0.75(8) x 2	0.75(8) x 2		
Protection Device	Power Circle Fuse		A	50				50				
	Operation Circle Fuse		A	8				10	5			
	High Pressure Cutting		Mpa	4.15								
Piping	Gas Pipe		mm	Φ15.88	Φ19.05	Φ22.2	Φ25.4	Φ25.4	Φ28.6	Φ28.6		
	Liquid Pipe		mm	Φ9.53			Φ12.7	Φ12.7	Φ12.7	Φ15.88		
Weight			kg	198			210	268	326	327		
Operation Range	Cooling	Outdoor Temperature	°C	21(DB) / 15(WB) ~ 32(DB) / 23(WB)								
		Indoor Temperature	°C	-5(DB) ~ 52(DB)								
	Heating	Outdoor Temperature	°C	15(DB) ~ 27(DB)								
		Indoor Temperature	°C	-20(WB) ~ 15(WB)								



GENERAL DATA

MS(D) Model (STANDARD)

Model						
				RAM-20MS(D)	RAM-22MS(D)	RAM-24MS(D)
Power				3 phase 4 wire, 220V 60Hz MS(D): 3 phase 4 wire: 360V 60Hz		
Outer Dimension (WxHxD)			mm	1,600 x 1,675 x 765		
Packaged Dimension (WxHxD)			mm	1,640 x 1,780 x 805		
Cooling Capacity			kW	56.0	61.5	67.0
Cooling Capacity (Middle)			kW	25.8	28.9	31.5
Heating Capacity			kW	63.0	64	77.5
Free Blow	Cooling	Power Consumption	kW	19.39	21.83	23.96
		Power Consumption (Middle)	kW	4.97	5.52	6.02
		Running Current	A	32.7	36.1	39.6
		CSPF	Wh/Wh	5.05	5.05	5.04
		Outdoor Unit CSPF	Wh/Wh	5.34	5.49	5.58
		Power Consumption Level	—	1	1	1
	Heating	Power Consumption	kW	19.49	21.36	23.88
		Running Current	A	32.90	35.3	39.40
Ducted	Cooling	Power Consumption	kW	23.21	24.48	26.23
		Power Consumption (Middle)	kW	6.15	6.79	7.61
		Running Current	A	39.2	40.4	43.3
		CSPF	Wh/Wh	4.12	4.21	4.15
		Outdoor Unit CSPF	Wh/Wh	4.35	4.72	4.84
	Heating	Power Consumption	kW	22.1	23.50	26
		Running Current	A	37.3	38.8	42.9
Power Factor			%	90	90	90
Starting Current			A	20		
Noise			dB(A)	62	63	65
Cooling / Heating System	Compressor Output (pole)		kW	6.3 (6) x 2		
	Oil Heater Output x Q'ty		W	37.3 x 6		
	R410A Charge		kg	11.3	11.3	11.6
	Refrigerant Oil (charge)		L	FVC68D (8.4)	FVC68D (8.4)	FVC68D (8.4)
	Expansion Device		—	Electronic Expansion Valve		
	Cooling / Heating Shift Device		—	4 Way Valve		
Fan System	Fan Type x Q'ty		—	Propeller Fan (3 blade) x 2		
	Air Flow Rate		m ³ /min	329		348
	Motor Output (pole)		kW	0.75 (8) x 2	0.75 (8) x 2	0.75 (8) x 2
Protection Device	Power Circle Fuse		A	50		
	Operation Circle Fuse		A	5		
	High Pressure Cutting		Mpa	4.15		
Piping	Gas Pipe		mm	Φ 28.6	Φ 28.6	Φ 28.6
	Liquid Pipe		mm	Φ 15.88	Φ 15.88	Φ 15.88
Weight			kg	364	364	365
Operation Range	Cooling	Outdoor Temperature	°C	21(DB) / 15(WB) ~ 32(DB) / 23(WB)		
		Indoor Temperature	°C	-5(DB) ~ 52(DB)		
	Heating	Outdoor Temperature	°C	15(DB) ~ 27(DB)		
		Indoor Temperature	°C	-20(WB) ~ 15(WB)		



GENERAL DATA

MS(D) Model (STANDARD)

Model											
				RAM-12MS(D) RAM-14MS(D)	RAM-12MS(D) RAM-14MS(D)	RAM-12MS(D) RAM-18MS(D)	RAM-14MS(D) RAM-18MS(D)	RAM-16MS(D) RAM-18MS(D)	RAM-18MS(D) RAM-18MS(D)		
Power				MS: 3 phase 4 wire, 220V 60Hz MS(D): 3 phase 4 wire: 360V 60Hz							
Outer Dimension (WxHxD)			mm	(2,180) x 1,675 x 765			(2,440) x 1,675 x 765				
Cooling Capacity			kW	73.5	78.5	83.5	90.0	95.0	100.0		
Cooling Capacity (Middle)			kW	34.5	36.2	39.2	42.3	44.0	47.0		
Heating Capacity			kW	82.5	87.5	93.5	101.0	106.0	112.0		
Free Blow	Cooling	Power Consumption	kW	22.87	25.07	27.79	31.00	33.20	35.92		
		Power Consumption (Middle)	kW	6.28	6.76	7.40	7.62	8.10	8.74		
		Running Current	A	38.6	42.3	46.9	52.3	56.0	60.6		
		CSPF	Wh/WWh	5.42	5.28	5.18	5.32	5.21	5.13		
		Outdoor Unit CSPF	Wh/WWh	5.81	5.62	5.53	5.73	5.59	5.52		
	Heating	Power Consumption	kW	21.65	23.20	26.03	28.64	30.19	33.02		
		Running Current	A	36.60	39.20	44.00	48.40	51.00	55.80		
Ducted	Cooling	Power Consumption	kW	25.2	28.29	31.35	34.85	37.94	41		
		Power Consumption (Middle)	kW	7.46	8.26	8.86	9.48	10.28	10.88		
		Running Current	A	42.5	47.7	52.9	58.8	64	69.2		
		CSPF	Wh/WWh	4.66	4.42	4.4	4.39	4.22	4.22		
		Outdoor Unit CSPF	Wh/WWh	5.14	4.81	4.78	4.72	4.51	4.5		
	Heating	Power Consumption	kW	23.31	25.32	27.32	30.69	32.7	34.7		
		Running Current	A	39.3	42.7	46.1	51.8	55.2	58.6		
Power Factor			%	90	90	90	90	90			
Starting Current			A	17	32	32	32	43	43		
Noise			dB(A)	63	63.5	64.5	65	65.5	66		
Cooling / Heating System	Compressor Output (pole)	kW	$\frac{6.3(6)}{6.3(6)} \times 1$	$\frac{6.3(6)}{6.3(6)} \times 1 + \frac{6.3(6)}{6.3(6)} \times 2$	$\frac{6.3(6)}{6.3(6)} \times 1 + \frac{6.3(6)}{6.3(6)} \times 2$	$\frac{6.3(6)}{6.3(6)} \times 1 + \frac{6.3(6)}{6.3(6)} \times 2$	$\frac{6.3(6)}{6.3(6)} \times 2 + \frac{6.3(6)}{6.3(6)} \times 2$	$\frac{6.3(6)}{6.3(6)} \times 2 + \frac{6.3(6)}{6.3(6)} \times 2$			
	R410A Charge	kg	16.1	17.1	17.9	19.6	20.6	21.4			
	Refrigerant Oil (charge)	L	FVC68D(12.9)	FVC68D(13.9)		FVC68D(14.8)	FVC68D(15.8)				
	Expansion Device	—	Electronic Expansion Valve								
	Cooling / Heating Shift Device	—	4 Way Valve								
Fan System	Fan Type x Qty	—	Propeller Fan (3 blade) x 3			Propeller Fan (3 Blade) x 4					
	Air Flow Rate	m³/min	190+239	190 + 256	190 + 256	239 + 256	256 x 2				
	Motor Output (pole)	kW	$\frac{0.75(8)}{0.75(8)} \times 2$	$\frac{0.75(8)}{0.75(8)} + \frac{0.75(8)}{0.75(8)} \times 2$	$\frac{0.75(8)}{0.75(8)} + \frac{0.75(8)}{0.75(8)} \times 2$	$\frac{0.75(8)}{0.75(8)} \times 2 + \frac{0.75(8)}{0.75(8)} \times 2$					
Protection Device	Power Circle Fuse	A	Refer to each model								
	Operation Circle Fuse	A									
	High Pressure Cutting	Mpa									
Piping	Gas Pipe	mm	Φ31.75			Φ31.75	Φ31.75	Φ38.1			
	Liquid Pipe	mm	Φ19.05			Φ19.05	Φ19.05	Φ19.05			
Weight			kg	210 + 268	210 + 326	210 + 327	268 + 327	326 + 327	327 + 327		
Operation Range	Cooling	Outdoor Temperature	°C	21(DB) / 15(WB) ~ 32(DB) / 23(WB)							
		Indoor Temperature	°C	-5(DB) ~ 52(DB)							
	Heating	Outdoor Temperature	°C	15(DB) ~ 27(DB)							
		Indoor Temperature	°C	-20(WB) ~ 15(WB)							



GENERAL DATA

MS(D) Model (STANDARD)

Model									
				RAM-14MS(D) RAM-24MS(D)	RAM-18MS(D) RAM-22MS(D)	RAM-18MS(D) RAM-24MS(D)	RAM-22MS(D) RAM-22MS(D)	RAM-22MS(D) RAM-24MS(D)	RAM-24MS(D) RAM-24MS(D)
Power				MS: 3 phase 4 wire, 220V 60Hz MS(D): 3 phase 4 wire: 360V 60Hz					
Outer Dimension (WxHxD)			mm	(2,830) x 1,675 x 765			(3,220) x 1,675 x 765		
Cooling Capacity			kW	107.0	111.5	117.0	123.0	128.5	134.0
Cooling Capacity (Middle)			kW	50.3	52.4	55.0	57.8	60.4	63.0
Heating Capacity			kW	122.5	125.0	133.5	138.0	146.5	155.0
Free Blow	Cooling	Power Consumption	kW	37.00	39.79	41.92	43.66	45.79	47.92
		Power Consumption (Middle)	kW	9.27	9.89	10.39	11.04	11.54	12.04
		Running Current	A	61.6	66.4	69.9	72.2	75.7	79.2
		CSPF	Wh/Wh	5.22	5.09	5.08	5.05	5.05	5.04
		Outdoor Unit CSPF	Wh/Wh	5.74	5.51	5.55	5.49	5.54	5.58
	Heating	Power Consumption	kW	36.01	37.87	40.39	42.72	45.24	47.76
		Running Current	A	59.90	63.20	67.30	70.60	74.70	78.80
	Ducted	Cooling	Power Consumption	kW	40.58	44.98	46.73	48.96	50.71
Power Consumption (Middle)			kW	11.65	12.23	13.05	13.58	14.4	15.22
Running Current			A	67.5	75	77.9	80.8	83.7	86.6
CSPF			Wh/Wh	4.31	4.22	4.18	4.21	4.18	4.15
Outdoor Unit CSPF			Wh/Wh	4.91	4.62	4.69	4.72	4.78	4.84
Heating		Power Consumption	kW	39.34	40.85	43.35	47	49.5	52
		Running Current	A	65.4	68.1	72.2	77.6	81.7	85.8
Power Factor			%	90	90	90	90	90	
Starting Current			A	32	43	43	43	43	
Noise			dB(A)	66.5	66	67	66	67	68
Cooling / Heating System	Compressor Output (pole)	kW	6.3 (6) x 1 + 6.3 (6) x 2	6.3 (6) x 2 + 6.3 (6) x 2	6.3 (6) x 2 + 6.3 (6) x 2	6.3 (6) x 2 + 6.3 (6) x 2	6.3 (6) x 2 + 6.3 (6) x 2	6.3 (6) x 2 + 6.3 (6) x 2	
	R410A Charge	kg	20.5	22	22.3	22.6	22.9	23.2	
	Refrigerant Oil (charge)	L	FVC68D (15.3)	FVC68D (16.3)	FVC68D (16.3)	FVC68D (16.8)	FVC68D (16.8)	FVC68D (16.8)	
	Expansion Device	—	Electronic Expansion Valve						
	Cooling / Heating Shift Device	—	4 Way Valve						
Fan System	Fan Type x Q'ty	—	Propeller Fan (3 Blade) x 4						
	Air Flow Rate	m³/min	239 + 348	256 + 329	256+ 348	329 x 2	329 + 348	348 x 2	
	Motor Output (pole)	kW	0.75(8) x 2 + 0.75 (8) x 2	0.75(8) x 2 + 0.75 (8) x 2	0.75(8) x 2 + 0.75 (8) x 2	0.75 (8) x 2 + 0.75 (8) x 2	0.75 (8) x 2 + 0.75 (8) x 2	0.75 (8) x 2 + 0.75 (8) x 2	
Protection Device	Power Circle Fuse	A	Refer to each model						
	Operation Circle Fuse	A							
	High Pressure Cutting	Mpa							
Piping	Gas Pipe	mm	Φ38.1	Φ38.1	Φ38.1	Φ38.1	Φ38.1	Φ38.1	
	Liquid Pipe	mm	Φ19.05	Φ19.05	Φ19.05	Φ19.05	Φ19.05	Φ19.05	
Weight			kg	268 + 365	327 + 364	327 + 365	364 + 364	364 + 365	365 + 365
Operation Range	Cooling	Outdoor Temperature	°C	21(DB) / 15(WB) ~ 32(DB) / 23(WB)					
		Indoor Temperature	°C	-5(DB) ~ 52(DB)					
	Heating	Outdoor Temperature	°C	15(DB) ~ 27(DB)					
		Indoor Temperature	°C	-20(WB) ~ 15(WB)					



GENERAL DATA

MS(D) Model (STANDARD)

Model											
				RAM-14MS(D) RAM-18MS(D) RAM-18MS(D)	RAM-16MS(D) RAM-18MS(D) RAM-18MS(D)	RAM-18MS(D) RAM-18MS(D) RAM-18MS(D)	RAM-14MS(D) RAM-18MS(D) RAM-24MS(D)	RAM-18MS(D) RAM-18MS(D) RAM-22MS(D)	RAM-18MS(D) RAM-18MS(D) RAM-24MS(D)		
Power				MS: 3 phase 4 wire, 220V 60Hz MS(D): 3 phase 4 wire: 360V 60Hz							
Outer Dimension (WxHxD)			mm	(3,670) x 1,675 x 765			(4,060) x 1,675 x 765				
Cooling Capacity			kW	140.0	145.0	150.0	157.0	161.5	167.0		
Cooling Capacity (Middle)			kW	65.8	67.5	70.5	73.8	75.9	78.5		
Heating Capacity			kW	157.0	162.0	168.0	178.5	181.0	189.5		
Free Blow	Cooling	Power Consumption	kW	48.96	51.16	53.88	54.96	57.75	59.88		
		Power Consumption (Middle)	kW	11.99	12.47	13.11	13.64	14.26	14.76		
		Running Current	A	82.6	86.3	90.9	91.9	96.7	100.2		
		CSPF	Wh/Wh	5.25	5.18	5.13	5.19	5.10	5.10		
		Outdoor Unit CSPF	Wh/Wh	5.65	5.57	5.52	5.67	5.51	5.54		
	Heating	Power Consumption	kW	45.15	46.70	49.53	52.52	54.38	56.90		
		Running Current	A	76.30	78.90	83.70	87.80	91.10	95.20		
Ducted	Cooling	Power Consumption	kW	55.35	58.44	61.5	61.08	65.48	67.23		
		Power Consumption (Middle)	kW	14.92	15.72	16.32	17.09	17.67	18.49		
		Running Current	A	93.4	98.6	103.8	102.1	109.6	112.5		
		CSPF	Wh/Wh	4.33	4.22	4.22	4.28	4.22	4.19		
		Outdoor Unit CSPF	Wh/Wh	4.64	4.51	4.5	4.77	4.58	4.63		
	Heating	Power Consumption	kW	48.04	50.05	52.05	56.69	58.2	60.7		
		Running Current	A	81.1	84.5	87.9	94.7	97.4	101.5		
Power Factor			%	90	90	90	90	90			
Starting Current			A	55	67	67	49	61	61		
Noise			dB(A)	67	67.5	68	68	68	68.5		
Cooling / Heating System	Compressor Output (pole)	kW	6.3 (6) x 1 + 6.3 (6) x 2 + 6.3 (6) x 2	6.3 (6) x 2 + 6.3 (6) x 2 + 6.3 (6) x 2	6.3 (6) x 2 + 6.3 (6) x 2 + 6.3 (6) x 2	6.3 (6) + 6.3 (6) x 2 + 6.3 (6) x 2	6.3 (6) x 2) x 2 + 6.3 (6) x 2	6.3 (6) x 2) x 2 + 6.3 (6) x 2			
	R410A Charge	kg	30.3	31.3	32.1	31.2	32.7	33			
	Refrigerant Oil (charge)	L	FVC68D (22.7)	FVC68D (23.7)	FVC68D (23.7)	FVC68D (23.2)	FVC68D (24.2)	FVC68D (24.2)			
	Expansion Device	—	Electronic Expansion Valve								
	Cooling / Heating Shift Device	—	4 Way Valve								
Fan System	Fan Type x Q'ty	—	Propeller Fan (3 Blade) x 6								
	Air Flow Rate	m³/min	239 + 256 x 2	256 x 3	256 x 3	239 + 256 + 348	256 + 256 + 329	256 + 256 + 348			
	Motor Output (pole)	kW	0.75 (8) x 2 + 0.75 (8) x 2 + 0.75 (8) x 2	0.75 (8) x 2 + 0.75 (8) x 2 + 0.75 (8) x 2	0.75 (8) x 2 + 0.75 (8) x 2 + 0.75 (8) x 2	0.75 (8) x 2 + 0.75 (8) x 2 + 0.75 (8) x 2	0.75 (8) x 2) x 2 + 0.75 (8) x 2	0.75 (8) x 2) x 2 + 0.75 (8) x 2			
Protection Device	Power Circle Fuse	A	Refer to each model								
	Operation Circle Fuse	A									
	High Pressure Cutting	Mpa									
Piping	Gas Pipe	mm	Φ38.1	Φ38.1	Φ38.1	Φ44.45	Φ44.45	Φ44.45			
	Liquid Pipe	mm	Φ9.05	Φ9.05	Φ9.05	Φ9.05	Φ9.05	Φ9.05			
Weight			kg	268 + 327 + 327	326 + 327 + 327	327 + 327 + 327	268 + 327 + 365	327 + 327 + 364	327 + 327 + 365		
Operation Range	Cooling	Outdoor Temperature	°C	21(DB) / 15(WB) ~ 32(DB) / 23(WB)							
		Indoor Temperature	°C	-5(DB) ~ 52(DB)							
	Heating	Outdoor Temperature	°C	15(DB) ~ 27(DB)							
		Indoor Temperature	°C	-20(WB) ~ 15(WB)							



GENERAL DATA

MS(D) Model (STANDARD)

Model									
				RAM-14MS(D) RAM-24MS(D) RAM-24MS(D)	RAM-18MS(D) RAM-22MS(D) RAM-24MS(D)	RAM-18MS(D) RAM-24MS(D) RAM-24MS(D)	RAM-22MS(D) RAM-22MS(D) RAM-24MS(D)	RAM-22MS(D) RAM-24MS(D) RAM-24MS(D)	RAM-24MS(D) RAM-24MS(D) RAM-24MS(D)
Power				MS: 3 phase 4 wire, 220V 60Hz MS(D): 3 phase 4 wire: 360V 60Hz					
Outer Dimension (WxHxD)			mm	(4,450) x 1,675 x 765			(4,840) x 1,675 x 765		
Cooling Capacity			kW	174.0	178.5	184.0	190.0	195.5	201.0
Cooling Capacity (Middle)			kW	81.8	83.9	86.5	89.3	91.9	94.5
Heating Capacity			kW	200.0	202.5	211.0	215.5	224.0	232.5
Free Blow	Cooling	Power Consumption	kW	60.96	63.75	65.88	67.62	69.75	71.88
		Power Consumption (Middle)	kW	15.29	15.91	16.41	17.06	17.56	18.06
		Running Current	A	101.2	106.0	109.5	111.8	115.3	118.8
		CSPF	Wh/Wh	5.15	5.07	5.07	5.05	5.04	5.04
		Outdoor Unit CSPF	Wh/Wh	5.68	5.53	5.56	5.52	5.55	5.58
	Heating	Power Consumption	kW	58.89	61.75	64.27	66.60	69.12	71.64
		Running Current	A	99.30	102.60	106.70	110.00	114.10	118.20
Ducted	Cooling	Power Consumption	kW	66.81	71.21	72.96	75.19	76.94	78.69
		Power Consumption (Middle)	kW	19.26	19.84	20.66	21.19	22.01	22.83
		Running Current	A	1110.8	118.3	121.2	124.1	127	129.9
		CSPF	Wh/Wh	4.25	4.19	4.17	4.19	4.17	4.15
		Outdoor Unit CSPF	Wh/Wh	4.89	4.7	4.75	4.76	4.8	4.84
	Heating	Power Consumption	kW	65.34	66.85	69.35	73	75.5	78
		Running Current	A	108.3	111	115.1	120.5	124.6	128.7
Power Factor			%	90	90	90	90	90	
Starting Current			A	49	61	61	61	61	
Noise			dB(A)	69	68.5	69	68.5	69	70
Cooling / Heating System	Compressor Output (pole)		kW	$\frac{6.3}{6.3} (6) \times 2$ $\times (6.3 (6) \times 2) \times 2$	$\frac{6.3}{6.3} (6) \times 2$ $\times \frac{6.3}{6.3} (6) \times 2$ $\times \frac{6.3}{6.3} (6) \times 2$	$\frac{6.3}{6.3} (6)$ $\times (6.3 (6) \times 2) \times 2$	$\frac{6.3}{6.3} (6) \times 2$ $\times (6.3 (6) \times 2) \times 2$	$\frac{6.3}{6.3} (6) \times 2$ $\times (6.3 (6) \times 2) \times 2$	$\frac{6.3}{6.3} (6) \times 2$ $\times 3$
	R410A Charge		kg	32.1	33.6	33.9	34.2	34.5	34.8
	Refrigerant Oil (charge)		L	FVC68D (23.7)	FVC68D (24.7)	FVC68D (24.7)	FVC68D (25.2)	FVC68D (25.2)	FVC68D (25.2)
	Expansion Device		—	Electronic Expansion Valve					
	Cooling / Heating Shift Device		—	4 Way Valve					
Fan System	Fan Type x Q'ty		—	Propeller Fan (3 Blade) x 6					
	Air Flow Rate		m ³ /min	239 + 348 + 348	256 + 329 + 348	256 + 348 + 348	329 + 329 + 348	329 + 348 x 2	348 x 3
	Motor Output (pole)		kW	$\frac{0.75}{0.75} (8) \times 2$ $\times (0.75 (8) \times 2) \times 2$	$\frac{0.75}{0.75} (8) \times 2$ $\times \frac{0.75}{0.75} (8) \times 2$ $\times \frac{0.75}{0.75} (8) \times 2$	$\frac{0.75}{0.75} (8) \times 2$ $\times (0.75 (8) \times 2) \times 2$	$\frac{0.75}{0.75} (8) \times 2$ $\times (0.75 (8) \times 2) \times 2$	$\frac{0.75}{0.75} (8) \times 2$ $\times (0.75 (8) \times 2) \times 2$	$\frac{0.75}{0.75} (8) \times 2$ $\times 3$
Protection Device	Power Circle Fuse		A	Refer to each model					
	Operation Circle Fuse		A						
	High Pressure Cutting		Mpa						
Piping	Gas Pipe		mm	Φ44.45	Φ44.45	Φ44.45	Φ44.45	Φ44.45	Φ44.45
	Liquid Pipe		mm	Φ9.05	Φ9.05	Φ9.05	Φ2.2	Φ2.2	Φ2.2
Weight			kg	268 + 365 + 365	327 + 364 + 365	327 + 365 + 365	364 + 364 + 365	364 + 365 + 365	365 + 365 + 365
Operation Range	Cooling	Outdoor Temperature	°C	21(DB) / 15(WB) - 32(DB) / 23(WB)					
		Indoor Temperature	°C	-5(DB) - 52(DB)					
	Heating	Outdoor Temperature	°C	15(DB) - 27(DB)					
		Indoor Temperature	°C	-20(WB) - 15(WB)					



GENERAL DATA

MS(D) Model (STANDARD)

Model									
				RAM-14MS(D) RAM-18MS(D) RAM-18MS(D) RAM-24MS(D)	RAM-18MS(D) RAM-18MS(D) RAM-18MS(D) RAM-22MS(D)	RAM-18MS(D) RAM-18MS(D) RAM-18MS(D) RAM-24MS(D)	RAM-14MS(D) RAM-18MS(D) RAM-24MS(D) RAM-24MS(D)	RAM-16MS(D) RAM-18MS(D) RAM-24MS(D) RAM-24MS(D)	RAM-18MS(D) RAM-18MS(D) RAM-24MS(D) RAM-24MS(D)
Power				MS: 3 phase 4 wire, 220V 60Hz MS(D): 3 phase 4 wire: 360V 60Hz					
Outer Dimension (WxHxD)			mm	(5,290) x 1,675 x 765			(5,680) x 1,675 x 765		
Cooling Capacity			kW	207.0	211.5	217.0	224.0	229.0	234.0
Cooling Capacity (Middle)			kW	97.3	99.4	102.0	105.3	107.0	110.0
Heating Capacity			kW	234.5	237.0	245.5	256.0	261.0	267.0
Free Blow	Cooling	Power Consumption	kW	72.92	75.71	77.84	78.92	81.12	83.84
		Power Consumption (Middle)	kW	18.01	18.63	19.13	19.66	20.14	20.78
		Running Current	A	122.2	127.0	130.5	131.5	135.2	139.8
		CSPF	W/h/W/h	5.18	5.11	5.11	5.15	5.11	5.08
		Outdoor Unit CSPF	W/h/W/h	5.63	5.51	5.54	5.64	5.58	5.55
	Heating	Power Consumption	kW	69.03	70.89	73.41	76.40	77.95	80.78
		Running Current	A	115.70	119.00	123.10	127.20	129.80	134.60
Ducted	Cooling	Power Consumption	kW	81.58	85.98	87.73	87.31	90.4	93.46
		Power Consumption (Middle)	kW	22.53	23.11	23.93	24.7	25.5	26.1
		Running Current	A	136.7	144.2	147.1	145.4	150.6	155.8
		CSPF	W/h/W/h	4.27	4.22	4.2	4.24	4.18	4.18
		Outdoor Unit CSPF	W/h/W/h	4.71	4.56	4.6	4.79	4.7	4.69
	Heating	Power Consumption	kW	74.04	75.55	78.05	82.69	84.7	86.7
		Running Current	A	124	126.7	130.8	137.6	141	144.4
Power Factor			%	90	90	90	90	90	
Starting Current			A	69	81	81	69	81	81
Noise			dB(A)	69	69	69.5	70	70	70
Cooling / Heating System	Compressor Output (pole)		kW	$\frac{6.3(6)}{+ (6.3(6) \times 2) \times 2 + 6.3(6) \times 2}$					
	R410A Charge		kg	41.9	43.4	43.7	42.8	43.8	44.6
	Refrigerant Oil (charge)		L	FVC68D (31.1)	FVC68D (32.1)	FVC68D (32.1)	FVC68D (31.6)	FVC68D (32.6)	FVC68D (32.6)
	Expansion Device		—	Electronic Expansion Valve					
	Cooling / Heating Shift Device		—	4 Way Valve					
Fan System	Fan Type x Q'ty		—	Propeller Fan (3 Blade) x 8					
	Air Flow Rate		m³/min	239 + 256 x 2 + 348	256 x 3 + 329	256 x 3 + 348	239 + 256 + 348 x 2	256 + 256 + 348 x 2	256 x 2 + 348 x 2
	Motor Output (pole)		kW	$\frac{0.75(2) \times 2}{+ (0.75(8) \times 2) \times 2 + 0.75(8) \times 2}$	$\frac{0.75(8) \times 2 \times 3}{+ 0.75(8) \times 2}$	$\frac{0.75(8) \times 2 \times 3}{+ 0.75(8) \times 2}$	$\frac{0.75(2) \times 2}{+ 0.75(2) \times 2 + (0.75(8) \times 2) \times 2}$	$\frac{0.75(2) \times 2}{+ 0.75(2) \times 2 + (0.75(8) \times 2) \times 2}$	$\frac{0.75(8) \times 2 \times 2}{+ (0.75(8) \times 2) \times 2}$
Protection Device	Power Circle Fuse		A	Refer to each model					
	Operation Circle Fuse		A						
	High Pressure Cutting		Mpa						
Piping	Gas Pipe		mm	Φ50.8	Φ50.8	Φ50.8	Φ50.8	Φ50.8	Φ50.8
	Liquid Pipe		mm	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2
Weight			kg	268 + 327 + 327 + 365	327 + 327 + 327 + 364	327 + 327 + 327 + 365	268 + 327 + 365 + 365	326 + 327 + 365 + 365	327 + 327 + 365 + 365
Operation Range	Cooling	Outdoor Temperature	°C	21(DB) / 15(WB) ~ 32(DB) / 23(WB)					
		Indoor Temperature	°C	-5(DB) ~ 52(DB)					
	Heating	Outdoor Temperature	°C	15(DB) ~ 27(DB)					
		Indoor Temperature	°C	-20(WB) ~ 15(WB)					

GENERAL DATA

MS(D) Model (STANDARD)

Model									
				RAM-14MS(D) RAM-24MS(D) RAM-24MS(D) RAM-24MS(D)	RAM-16MS(D) RAM-24MS(D) RAM-24MS(D) RAM-24MS(D)	RAM-18MS(D) RAM-24MS(D) RAM-24MS(D) RAM-24MS(D)	RAM-22MS(D) RAM-22MS(D) RAM-24MS(D) RAM-24MS(D)	RAM-22MS(D) RAM-24MS(D) RAM-24MS(D) RAM-24MS(D)	RAM-24MS(D) RAM-24MS(D) RAM-24MS(D) RAM-24MS(D)
Power				MS: 3 phase 4 wire, 220V 60Hz MS(D): 3 phase 4 wire: 360V 60Hz					
Outer Dimension (WxHxD)		mm	(6,070) x 1,675 x 765			(6,460) x 1,675 x 765			
Cooling Capacity		kW	241.0	246.0	251.0	257.0	262.5	268.0	
Cooling Capacity (Middle)		kW	113.3	115.0	118.0	120.8	123.4	126.0	
Heating Capacity		kW	277.5	282.5	288.5	293.0	301.5	310.0	
Free Blow	Cooling	Power Consumption	kW	84.92	87.12	89.84	91.58	93.71	95.84
		Power Consumption (Middle)	kW	21.31	21.79	22.43	23.08	23.58	24.08
		Running Current	A	140.8	144.5	149.1	151.4	154.9	158.4
		CSPF	Wh/Wh	5.12	5.08	5.06	5.05	5.04	5.04
		Outdoor Unit CSPF	Wh/Wh	5.65	5.60	5.57	5.54	5.56	5.58
	Heating	Power Consumption	kW	83.77	85.32	88.15	90.48	93.00	95.52
		Running Current	A	138.70	141.30	146.10	149.40	153.50	157.60
Ducted	Cooling	Power Consumption	kW	93.04	96.13	99.19	101.42	103.17	104.92
		Power Consumption (Middle)	kW	26.87	27.67	28.27	28.8	29.62	30.44
		Running Current	A	154.1	159.3	164.5	167.4	170.3	173.2
		CSPF	Wh/Wh	4.22	4.16	4.16	4.18	4.16	4.15
		Outdoor Unit CSPF	Wh/Wh	4.87	4.78	4.77	4.78	4.81	4.84
	Heating	Power Consumption	kW	91.34	93.35	95.5	99	101.5	104
		Running Current	A	151.2	154.6	158	163.4	167.5	171.6
Power Factor		%	90	90	90	90	90	90	
Starting Current		A	69	81	81	81	81	81	
Noise		dB(A)	70.5	70.5	70.5	70	70.5	71	
Cooling / Heating System	Compressor Output (pole)		kW	$\frac{6.3(6)}{+ (6.3(6) \times 2) \times 3}$	$\frac{6.3(6) \times 2}{+ (6.3(6) \times 2) \times 3}$	$\frac{6.3(6) \times 2}{+ (6.3(6) \times 2) \times 3}$	$\frac{(6.3(6) \times 2) \times 2}{+ (6.3(6) \times 2) \times 2}$	$\frac{6.3(6) \times 2}{+ (6.3(6) \times 2) \times 3}$	$(6.3(6) \times 2) \times 4$
	R410A Charge		kg	43.7	44.7	45.5	45.8	46.1	46.4
	Refrigerant Oil (charge)		L	FVC68D (32.1)	FVC68D (33.1)	FVC68D (33.1)	FVC68D (33.6)	FVC68D (33.6)	FVC68D (33.6)
	Expansion Device		—	Electronic Expansion Valve					
	Cooling / Heating Shift Device		—	4 Way Valve					
Fan System	Fan Type x Q'ty		—	Propeller Fan (3 Blade) x 8					
	Air Flow Rate		m ³ /min	239 + 348 x 3	256 + 348 x 3	256 + 348 x 3	329 x 2 + 348 x 2	329 + 348 x 3	348 x 4
	Motor Output (pole)		kW	$\frac{0.75(8) \times 2}{+ (0.75(8) \times 2) \times 3}$	$\frac{0.75(8) \times 2}{+ (0.75(8) \times 2) \times 3}$	$\frac{0.75(8) \times 2}{+ (0.75(8) \times 2) \times 3}$	$\frac{(0.75(8) \times 2) \times 2}{+ (0.75(8) \times 2) \times 2}$	$\frac{0.75(8) \times 2}{+ (0.75(8) \times 2) \times 3}$	$(0.75(8) \times 2) \times 4$
Protection Device	Power Circle Fuse		A	Refer to each model					
	Operation Circle Fuse		A						
	High Pressure Cutting		Mpa						
Piping	Gas Pipe		mm	Φ50.8	Φ50.8	Φ50.8	Φ50.8	Φ50.8	Φ50.8
	Liquid Pipe		mm	Φ22.2	Φ22.2	Φ25.4	Φ25.4	Φ25.4	Φ25.4
Weight		Kg	268 + 365 + 365 + 365	326 + 365 + 365 + 365	327 + 365 + 365 + 365	364 + 364 + 365 + 365	364 + 365 + 365 + 365	365 + 365 + 365 + 365	
Operation Range	Cooling	Outdoor Temperature	°C	21(DB) / 15(WB) ~ 32(DB) / 23(WB)					
		Indoor Temperature	°C	-5(DB) ~ 52(DB)					
	Heating	Outdoor Temperature	°C	15(DB) ~ 27(DB)					
		Indoor Temperature	°C	-20(WB) ~ 15(WB)					



Indoor Units

Air conditioning solution for every room

Indoor Unit 4-Way Cassette Type

Sleek and lightweight design
has a low noise value of 32 dB(A)
(2.5 HP model).

DC MOTORS



FS Type

DC MOTORS



F Type

INSTANT COMFORT

Quiet Operation

- Compact size lowers approximately 24% of ventilation impedance, lowering noise levels during operation.
- Large diameter turbo fan enhances blowing efficiency without generating faster fan speed. The DC motor is also fitted with an anti-vibration rotary shaft.



Clean Air Quality

- Electronic dust collector with optional photocatalytic deodorizing filter and antibacterial purity filter is SEK certified



Certification No. of JAFET 007SF00

Notes:
SEK Certification means the products is in compliance with standard set by JAFET to ensure quality and safety of product.
(1)Antibacterial
(2)Effective durability
(3)Processing security

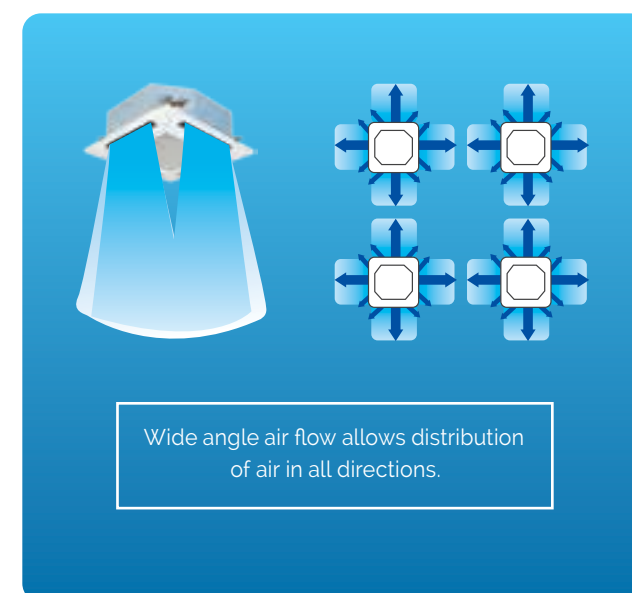
- Antibacterial purity filter can inhibit breeding of bacteria and mold by neutralizing inorganic and organic antimicrobial materials.

Main Functions

Optional parts	Electronic dust collector	●
	Vertical moving decorative frame	●
	Antibacterial cleaning filter	●
	High purity filter	●
	Deodorizing filter	●
Control	Total heat corresponding cross-linked operation	●
	Centralized remote correspondence	●
	Remote distance correspondence	●
	Control of 1 remote control group	●
	Operation of 2 remote controls	●
Maintaining construction	Wireless remote control correspondence	●
	Alarm diagnosis function	●
	Filter cleaning display	●
Comfort	Drain device	●
	Regular operation	●
	High ceiling correspondence	●
	Dehumidification	●
	3 sections of airflow adjustment	●
	Airflow angle option	●
	Auto swing	●

Wide Angle Airflow Design

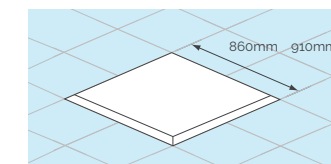
Wide angle airflow design extends the reach of comfort throughout a room so temperature is even.



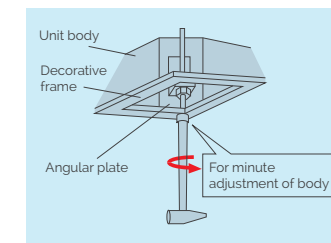
EASY INSTALLATION

Flexibility of installation

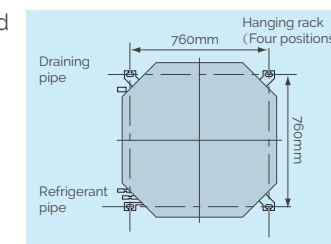
- The size of installation opening is 860 to 910 mm that uses minimal ceiling area.



- Adjust unit height without having to remove decorative frame by adjusting separate angular plate.



- Refrigerant pipe and draining pipe are placed in different corners of the unit for easy access.



- Ceiling unit features square hanging holes for easy installation without changing piping outlet.
- The decorative frame can be rotated 360 degrees when installed.

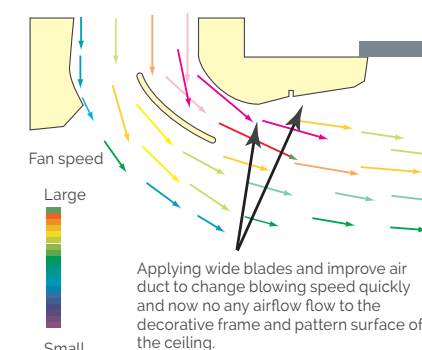
Notes:

- Shifting acceleration by using remote control.
- For setting blowing direction, extra shielding plate has to be purchased.

EASY MAINTENANCE

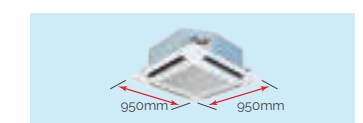
Thoughtful Design for Easy Cleaning

Wide blade design reduces dust build up. The blades are also no-tufting, so dust particles can be cleaned easily.

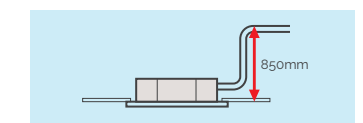


Enhancing installing Freedom

- Decorative frames span a 950mm x 950mm area.



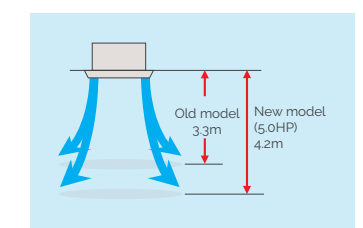
- High lift drain device for draining height up to 850mm.



- Lightweight unit body can be fixed in a narrow ceiling with a height of merely 238mm (when installing the decorative frame vertically, an extra 80mm clearance should be added).



- Blowing distance up to 4.2m (5 HP).

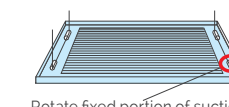
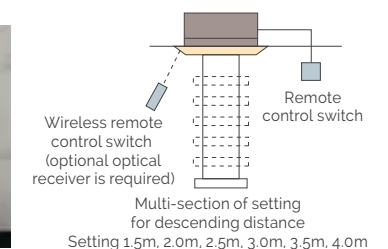


(unit: m)

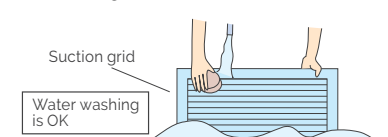
		Number of outlet								
		1.0~2.0HP			2.5~3.0HP			4.0~6.0HP		
		4ways	3ways	2ways	4ways	3ways	2ways	4ways	3ways	2ways
Height of ceiling	Standard	2.7	3.0	3.3	2.7	3.0	3.3	3.2	3.6	4.0
	Accelerating	3.0	3.3	3.6	3.0	3.3	3.6	3.6	4.0	4.2
	Accelerating	3.5	3.6	—	3.5	3.6	—	4.2	4.3	—

Vertical Blowing Grips for Easy Cleaning

Suction grid and filter can descend with a touch of the remote control for easy maintenance and cleaning (optional).



Rotate fixed portion of suction grid 90 degrees to remove and clean the suction grip.

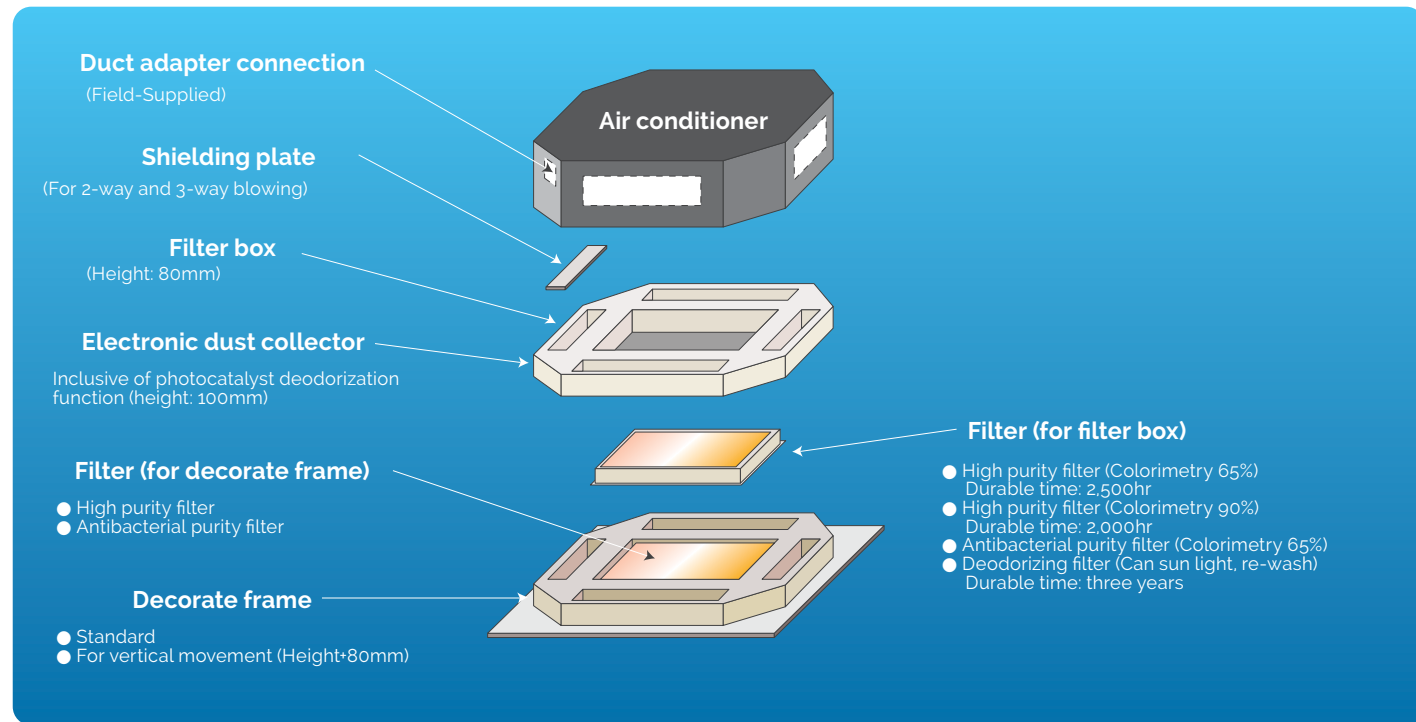


Water washing is OK

- Regular cleaning of filter each month can save electricity.

OPTIONAL PARTS

Note: For below optional parts and their installation, please contact our sales.



General Data (FS Type)

Model		RCI-1.0 FSKDNQ	RCI-1.5 FSKDNQ	RCI-2.0 FSKDNQ	RCI-2.5 FSKDNQ	RCI-3.0 FSKDNQ	RCI-4.0 FSKDNQ	RCI-5.0 FSKDNQ	RCI-6.0 FSKDNQ
Power Supply		AC1Φ, 220~240V 50Hz, 220V 60Hz				AC1Φ, 240V 50Hz, 220V 60Hz			
Nominal Cooling Capacity	kW	2.8	4.0	5.6	7.1	8.0	11.2	14.0	16.0
Nominal Heating Capacity	kW	3.2	4.8	6.3	8.5	9.0	12.5	16.0	18.0
Air Flow	m ³ /min	15/13/11/9	21/17/14/11	22/17/14/11	27/23/18/14	27/23/18/14	37/31/24/20	37/33/26/21	37/35/28/22
Fan Motor Type (output)	W	57	57	57	57	57	127	127	127
Sound Pressure Level	dB(A)	33/30/28/27	35/31/30/27	37/32/30/27	42/36/32/28	42/36/32/28	48/43/39/33	48/45/40/35	48/46/41/37
Sound Power Level	dB(A)	52	53	55	56	57	64	64	65
Outer Dimensions (WxDxH)	mm	840x840x238	840x840x238	840x840x238	840x840x238	840x840x288	840x840x288	840x840x288	840x840x288
Net Weight	kg	20	21	21	22	26	26	26	26
Refrigerant		R410A (factory-charged corrosion-proof nitrogen)							
Refrigerant Pipe Connection		Flare nuts							
Refrigerant Pipe Size	mm(in)	Φ 6.35 (1/4)	Φ 6.35 (1/4)	Φ 6.35 (1/4)	Φ 9.52 (3/8)	Φ 9.52 (3/8)	Φ 9.52 (3/8)	Φ 9.52 (3/8)	Φ 9.52 (3/8)
	mm(in)	Φ 12.7 (1/2)	Φ 12.7 (1/2)	Φ 12.7 (1/2)	Φ 15.88 (5/8)	Φ 15.88 (5/8)	Φ 15.88 (5/8)	Φ 15.88 (5/8)	Φ 15.88 (5/8)
Condensate Drain Connection	mm	Φ 32(t)	Φ 32(t)	Φ 32(t)	Φ 32(t)	Φ 32(t)	Φ 32(t)	Φ 32(t)	Φ 32(t)
Maximum Electricity Demand	A	5	5	5	5	5	5	5	5
Packaging Measurements	m ³	0.26	0.26	0.26	0.26	0.31	0.31	0.31	0.31
Adaptable Air Panel Model		P-N23NA2							
Colour (Munsell code)		Neutral White (4 56Y8.85/0.38)							
Outer Dimension (WxDxH)	mm	950x950x40	950x950x40	950x950x40	950x950x40	950x950x40	950x950x40	950x950x40	950x950x40
Net Weight	kg	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Packaging Measurements	m ³	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Remote Control		PC-ARF1							

Outer diameter (VP25) The data obtained is based on the operating conditions described in "Considerations".

Notes:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.
Cooling Operation Conditions
Indoor Air Inlet Temperature : 27°C DB (80°F DB) ; 19.0°C WB (66.2°F WB)
Outdoor Air Inlet Temperature : 35°C DB (95°F DB)
Piping Length : 7.5m Piping Lift : 0m

2. The sound pressure level is based on the following conditions.
1.5m beneath the unit.
The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

(F Type)

Model			RCI-28FT	RCI-36FR	RCI-40FH	RCI-45FM	RCI-50FF	RCI-56FN
Power Supply			AC1Φ, 220V/60Hz					
Outer Dimensions (W x D x H)		mm	840 x 238 x 840					
Nominal Cooling Capacity		kW	2.8	3.6	4.0	4.5	5.0	5.6
Sound Pressure	(Hi/Me/Lo)	dB(A)	30/28/27	30/28/27	31/30/27	31/30/27	32/30/27	32/30/27
	(°SHi/Hi/Me/Lo)		33/30/28/27	34/30/28/27	35/31/30/27	35/31/30/27	37/32/30/27	37/32/30/27
Fan Device	(Hi/Me/Lo)	m³/min	13/11/9	14/12/10	16/13/11	16/13/11	16/14/11	16/14/11
	(°SHi/Hi/Me/Lo)		15/13/11/19	17/14/12/10	20/16/13/11	20/16/13/11	20/16/14/11	20/16/14/11
Motor Output		kW	0.057					
Main Refrigerant Piping	Gas Line	mm	Φ 12.7 (with nuts)					
	Liquid Line	mm	Φ 6.35 (with nuts)					
Drain			VP25					
Standard Panel Model			P-AP160NA2					
Retractable Panel			P-AP160NAU2					
Weight		kg	20		21			
Refrigerant			R410A					

Model			RCI-63FS	RCI-71FE	RCI-80FL	RCI-90FK
Power Supply			AC1Φ, 220V/60Hz			
Outer Dimensions (W x D x H)		mm	840 x 238 x 840		840 x 288 x 840	
Nominal Cooling Capacity		kW	6.3	7.1	8.0	9.0
Sound Pressure	(Hi/Me/Lo)	dB(A)	36/31/27	36/32/28	36/32/28	38/39/29
	(°SHi/Hi/Me/Lo)		42/36/31/27	42/36/32/28	42/36/32/28	42/38/33/29
Fan Device	(Hi/Me/Lo)	m³/min	20/16/13	20/17/14	22/19/15	23/19/16
	(°SHi/Hi/Me/Lo)		26/20/16/13	26/20/17/14	26/22/19/15	26/23/19/16
Motor Output		kW	0.057			
Main Refrigerant Piping	Gas Line	mm	Φ 12.7 (with nuts)		Φ 15.88 (with nuts)	
	Liquid Line	mm	Φ 6.35 (with nuts)		Φ 9.53 (with nuts)	
Drain			VP25			
Standard Panel Model			P-AP160NA2			
Retractable Panel			P-AP160NAU2			
Weight		kg	22		26	
Refrigerant			R410A			

Model		RCI-112FQ	RCI-125FY	RCI-140FZ	RCI-160FJ
Power Supply		AC1Φ, 220V/60Hz			
Outer Dimensions (W x D x H)	mm	840 x 288 x 840			
Nominal Cooling Capacity	kW	11.2	12.5	14.0	16.0
Sound Pressure	(Hi/Me/Lo)	43/39/33	45/40/35	45/40/35	46/41/37
	(°SHi/Hi/Me/Lo)	48/43/39/33	48/45/40/35	48/45/40/35	48/46/41/37
Fan Device	(Hi/Me/Lo)	31/25/20	34/26/22	34/26/22	35/28/24
	(°SHi/Hi/Me/Lo)	35/31/25/20	36/34/26/22	36/34/26/22	37/35/28/24
Motor Output	kW	0.127			
Main Refrigerant Piping	Gas Line	Φ 15.88 (with nuts)			
	Liquid Line	Φ 9.53 (with nuts)			
Drain		VP25			
Standard Panel Model		P-AP160NA2			
Retractable Panel		P-AP160NAU2			
Weight	kg	26			
Refrigerant		R410A			

Notes: Data in Specification List is measured according to following conditions.

- Cooling : Indoor temperature is 27°C (DB) / 19.0°C (WB) Outdoor temperature is 35°C (DB)
- Piping Length 7.5m ● Piping Lift 0m

- Noise value is measured at 1.5m of distance away from a center portion of unit body.
- Noise value is measured in the anechoic chamber, so that reflected sound should be taken into consideration in the field.
- If using R407C or R22 refrigerant system at "3 remarked positions", please match with pipe at Φ19.05.

* With PC-ARFV or PC-LH3A



Small, lightweight and easy to install.

INSTANT COMFORT

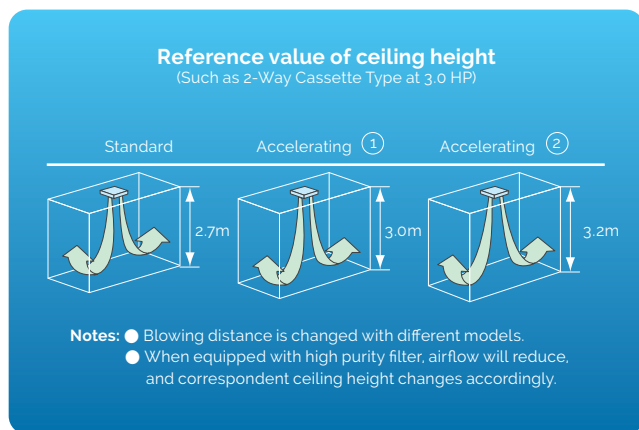
● Compact Turbo Fan with Low Noise

- Compact turbo fan with three dimensional flexible blades reduce noise levels (38 dB(A) for 2.5 HP models). CAE analysis is also applied to significantly decrease ventilation impedance of air flow.
- The newly developed AC chopper can control the rotation frequency to eliminate electromagnetic noise.



● Equal Cooling in High-Ceiling Spaces

A built-in accelerating device can be accessed via remote control to adjust airflow depending on ceiling height.



Main Functions

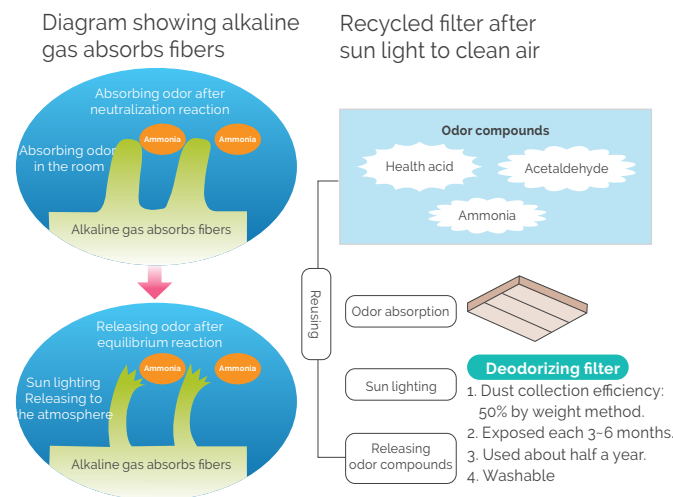
Optional parts	Vertical moving decorative frame	●
	Antibacterial cleaning filter	●
	High purity filter	●
	Deodorizing filter	●
Control	Total heat corresponding cross-linked operation	●
	Centralized remote correspondence	●
	Remote distance correspondence	●
	Control of 1 remote control group	●
Maintaining construction	Operation of 2 remote controls	●
	Wireless remote control correspondence	●
	Alarm diagnosis function	●
	Filter cleaning display	●
Comfort	Drain device	●
	Regular operation	●
	High ceiling correspondence	●
	Dehumidification	●
	3 sections of airflow adjustment	●
	Airflow angle option	●
	Auto swing	●

● Clean Air Conditioning

A fiber deodorizing filter (optional) made with special chemicals eliminate smoke and odor.

● Deodorizing Filter

Electronic dust collector with photocatalytic deodorizing filter (optional) is antibacterial and SEK approved.



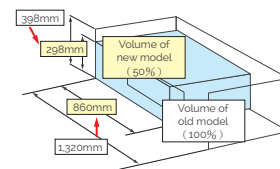
● Antibacterial Purity Filter (SEK approved)

Double antimicrobial structure (Colorimetry 65%) inhibits breeding of mold and dust mite. It also eliminates airborne bacteria.

EASY INSTALLATION

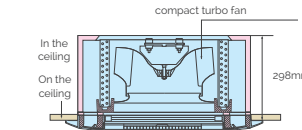
● Lightweight for Easy Installation

The 2.5 HP model features a compact build, reducing 50% of its weight to become just 30 kg.



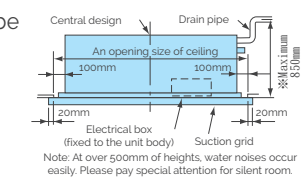
● Easy installation for tight spaces

The compact turbo fan only has a height of 298 mm. The unit also features a general width of just 860 mm, ideal for limited spaces.



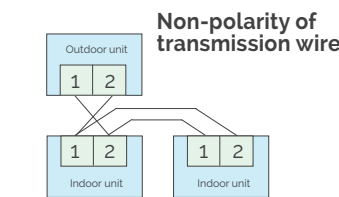
● Optimum Design Simplifies Installation

Access to the unit's indoor board and wiring system can be done by simply removing the suction grid. Piping height can be up to 850mm to enhance installation efficiency.



● Simplified Wiring System

- Non-polar two-core transmission wires are utilized to avoid connection errors and abnormal transmissions.
- In case of wrong connections between the power wire and transmission terminal block, fuse is shorted out to protect the system.



General Data

Model		RCD-1.0FSN2	RCD-1.5FSN2	RCD-2.0FSN2	RCD-2.5FSN2	RCD-3.0FSN2	RCD-4.0FSN2	RCD-5.0FSN2
Power Supply		AC1Φ, 220V/60Hz						
Nominal Cooling Capacity	kW	2.8	4.0	5.6	7.1	8.0	11.2	14.0
Sound Pressure Level (Hi/Me/Lo)	dB(A)	34/32/30	35/32/30	35/32/30	38/34/31	38/34/31	40/36/33	43/40/46
Outer Dimensions (HxWxD)	mm	298 x 860 x 620	298 x 860 x 620	298 x 860 x 620	298 x 860 x 620	298 x 860 x 620	298 x 1,420 x 620	298 x 1,420 x 620
Net Weight	kg	27	27	27	30	30	48	48
Refrigerant	R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance)							
Air Flow Rate (Hi/Me/Lo)	m ³ /min(cfm)	10/9/8(353/318/282)	13/11/9(459/388/318)	15/13/11(530/459/388)	19/16/14(671/565/494)	19/16/14(671/565/494)	29/24/21(1,024/847/742)	34/29/25(1,201/1,024/883)
Motor Output	W	35	35	35	55	55	35 x 2	55 x 2
Connections	Flare-Nut Connection (With Flare Nuts)							
Liquid Line/Gas Line	mm	Φ 6.35/12.7	Φ 6.35/12.7	Φ 6.35/15.88	Φ 9.52/15.88	Φ 9.52/15.88	Φ 9.52/15.88 ³	Φ 9.52/15.88 ³
Condensate Drain	VP25							
Approximate Packing Measurement	m ³	0.23	0.23	0.23	0.23	0.23	0.37	0.37
Panel Model	P-N23DNA							
Color	Neutral White							
Dimensions (HxWxD)	mm	30 x 1,100x 710	30 x 1,100x 710	30 x 1,100x 710	30 x 1,100x 710	30 x 1,100x 710	30 x 1,660x 710	30 x 1,660x 710
Net Weight	kg	6	6	6	6	6	8	8
Approximate Packing Measurement	m ³	0.10	0.10	0.10	0.10	0.10	0.15	0.15

Notes: 1. The nominal cooling capacity is for the standard HITACHI split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

Indoor Air Inlet Temperature : 27°C DB (80°F DB) ; 19.0°C WB (66.2°F WB)

Outdoor Air Inlet Temperature : 35°C DB (95°F DB) Piping Length : 7.5m Piping Lift : 0m

2. The sound pressure level is based on following conditions.

1.5 Meters Beneath the Unit.Voltage of the power source for the indoor fan motor is 220V. In case of the power source of 240V, the sound pressure level increases by about 1dB.The above data was measured in an anechoic

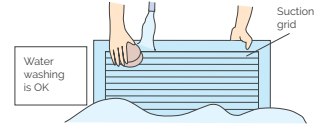
EASY MAINTENANCE

● Vertical Blowing Grips for Easy Cleaning

The suction grid and filter can be removed by hand or by remote control for cleaning.



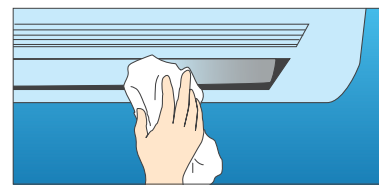
Rotating fixing portion of suction grid 90 degrees to remove and clean the suction grip



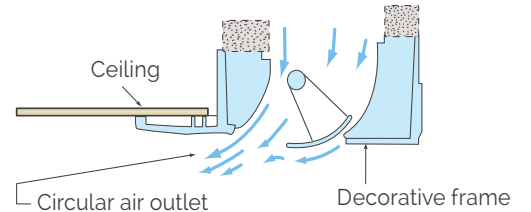
Regular cleaning each month to save electricity expense

● Considerate Design for Easy Cleaning

- Improved air duct design



- Improved suction grid profile that reduces dust collection
- Air outlet is designed with a special circular design to prevent dirt accumulation



Indoor Unit Wall Type

Compact design,
incomparable comfort



Main Functions

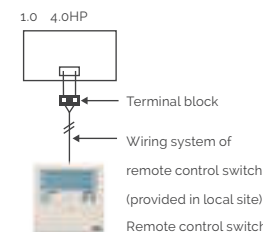
Optional parts	External electronic expansion valve	●
	Vertical moving decorative frame	—
	Antibacterial cleaning filter	—
	High purity filter	—
	Deodorizing filter	—
Control	Total heat corresponding cross-linked operation	—
	Centralized remote correspondence	●
	Remote distance correspondence	●
	Control of 1 remote control group	●
	Operation of 2 remote controls	●
Maintaining construction	Wireless remote control correspondence	●
	Alarm diagnosis function	●
	Filter cleaning display	●
	Drain device	—
	Regular operation	●
Comfort	High ceiling correspondence	—
	Dehumidification	●
	3 sections of airflow adjustment	●
	Airflow angle option	●
	Auto swing	●

Notes: * * * Operated only by wired remote control.

QUICK COMFORT

Remote Controlled Comfort

- The optical receiver kit can control the wireless remote control while the wired remote control can operate the indoor unit.
- One remote control can simultaneously operate multiple indoor units (for wireless remote controls, PC-ALHZ is necessary)
- Extra terminal block is provided for wired connection to simplify local wiring systems



General Data

Indoor Unit Type		Wall Mounted Type					
Model		RPK-1.0FSN4M	RPK-1.5FSN4M	RPK-2.0FSN4M	RPK-2.5FSN4M	RPK-3.0FSN4M	RPK-4.0FSN4M
Indoor Unit Power Supply		AC1Ø, 220-240V 50/60Hz, 230V 50Hz					
Nominal Cooling Capacity	kW	2.8	4.0	5.6	7.1	8.0	11.2
Nominal Cooling Capacity	kW	3.2	4.8	6.3	8.5	9	12.5
Sound Pressure Level (Overall A Scale) (Hz-Hz-Me-Lo)	dB	39-35-32-30	46-40-36-33	40-37-34-31	45-42-38-35	47-44-40-35	51-48-44-39
Sound Pressure Level (Overall A Scale) (Hz-Hz-Me-Lo)	dB	53-49-47-45	58-54-50-47	55-53-50-47	60-58-54-51	63-60-56-51	66-64-60-54
Outer Dimensions Height	mm (in)	300 (11-13/16)	300 (11-13/16)	300 (11-13/16)	300 (11-13/16)	300 (11-13/16)	300 (11-13/16)
Width	mm (in)	790 (31-7/64)	900 (35-7/16)	1100 (43-5/16)	1100 (43-5/16)	1100 (43-5/16)	1100 (43-5/16)
Depth	mm (in)	230 (9-1/16)	230 (9-1/16)	260 (10-1/4)	260 (10-1/4)	260 (10-1/4)	260 (10-1/4)
Net Weight	Kg (lbs.)	10 (22)	11 (24)	14.5 (32)	15 (33)	15 (33)	15 (33)
Refrigerant		R410A					
Indoor Fan Air Flow Rate (Hz-Hz-Me-Lo)	m³/min. (cfm)	10-8-7-6.5 (353-283-247-230)	14-11-9-7.5 (495-389-318-265)	14.5-13-11-9.5 (512-459-388-335)	18.5-16.5-14-12 (653-582-494-423)	20-17.5-15.5-12.5 (706-618-547-441)	23-20-17.5-14.5 (812-706-618-512)
Motor	W	38	38	38	38	38	38
Connections		Flare-Nut Connection (with Flare Nuts)					
Refrigerant Piping Liquid Line	mm (in)	6.35 1/4	3.35 1/4	6.35 1/4	9.52 3/8	9.52 3/8	9.52 3/8
Gas Line	mm (in)	12.7 1/2	12.7 1/2	12.7 1/2	15.88 5/8	15.88 5/8	15.88 5/8
Condensate Drain		VP16	VP16	VP16	VP16	VP16	VP16
Approximate Packing Measurement	m³	0.09	0.11	0.14	0.14	0.14	0.14

Indoor Unit In-The-Ceiling Type

Multi-directional comfort



Main Functions

Optional parts	Vertical moving decorative frame	—
	Antibacterial cleaning filter	—
	High purity filter	●
	Durable filter	●
	Deodorizing filter	—
Control	Total heat corresponding cross-linked operation	●
	Centralized remote correspondence	●
	Remote distance correspondence	●
	Control of 1 remote control group	●
	Operation of 2 remote controls	●
Maintaining construction	Wireless remote control correspondence	●
	Alarm diagnosis function	●
	Filter cleaning display	●
	**Drain device (optional part)	—
Comfort	Regular operation	●
	High ceiling correspondence	—
	Dehumidification	●
	*6 sections of airflow adjustments	●
	3 sections of airflow adjustment	●
	Airflow angle option	—
	Auto swing	—

Notes: * * * Only for matching with high-performance wired remote control switch (PC-ARFV)
Notes: * * * RPI-0 8-1.5FSN2 is built-in standard equipment.

QUICK COMFORT

Low Noise Levels 36dB(A) (2.5HP) (FS Type)

- Computational airflow analysis techniques are utilized to decrease ventilation impedance in each indoor unit.
- Noise value of 2.5 HP models are well along 36 dB(A), while 2 HP models are at 35 dB(A). Ideal for small spaces and enclosed rooms.

High quality air conditioning and more clean

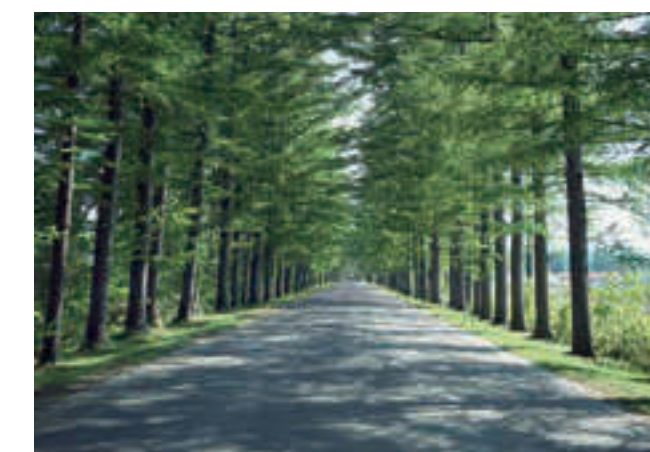
Model	Returning box	Applicable filter
RPI-22-90N	Equipped	Silver nanoparticles anion filter (equipped) Durable filter (optional part)
RPI-112-160N	Equipped	High purity filter (optional part) Durable filter (optional part)

Note: For optional parts, please see P.56

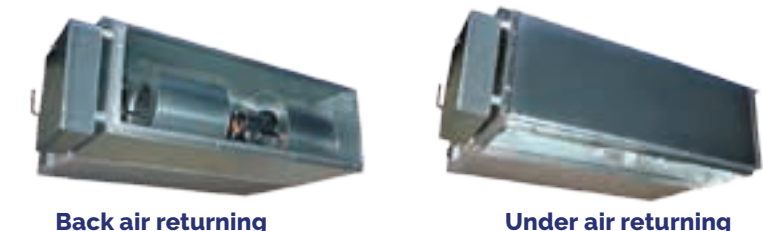
EASY INSTALLATION

Static pressure setting for indoor unit

Static setting (low, standard and high) for the indoor unit is available after construction via remote control based on the application of air duct on local site.



For under and back air returning (Only for RPI-22NC-90NK)



NOTES:
1. The nominal cooling capacity is the combined capacity of the Hitachi standard split system, and is based on the JIS standard B8866.
Cooling Operation Conditions
Outdoor Air Inlet Temperature: 27°C (80°F DB)
Indoor Air Inlet Temperature: 19.0°C WB (66.2°F WB)
35°C DB (95°F DB)
Heating Operation Conditions
Outdoor Air Inlet Temperature: 20°C DB (68°F DB)
Indoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)
Piping Length: 75 Meters Piping Lift: 0 Meters
2. The sound pressure level is based on following conditions:
1. Meter Beneath the Unit and 1 Meter From Air Inlet Grille
The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

EASY INSTALLATION

Lightweight

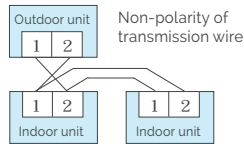
Because of its light weight, the unit can be set upward and be fixed easily on the ceiling.

Compact Design to Save Space

With the compact design, the area for installation is reduced hence saving material for the construction of the air duct.
4.0 HP – For inlet side: Height 306 mm x Width 833 mm (80% of old model) – For outlet side: Height 220 mm x Width 803 mm (75% of old model)

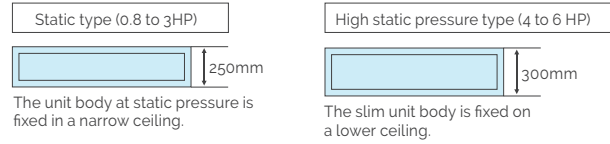
Simplified Wiring System

Non-polar two-core transmission wires are utilized to avoid connection errors and abnormal transmissions.



Slim Body and High Hydrostatic Pressure

Unit height at high static pressure is only at 300 mm while unit body a static pressure is 250 mm.

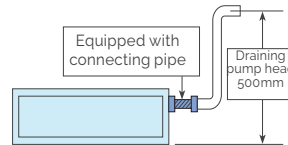


Lower Hanging Position

Lowered hanging position 100 mm above the body makes installation easier for 4 to 6 HP models.

Drain Device (Optional)

A high lift drain device is provided to expand a lift draining range up to 500 mm.

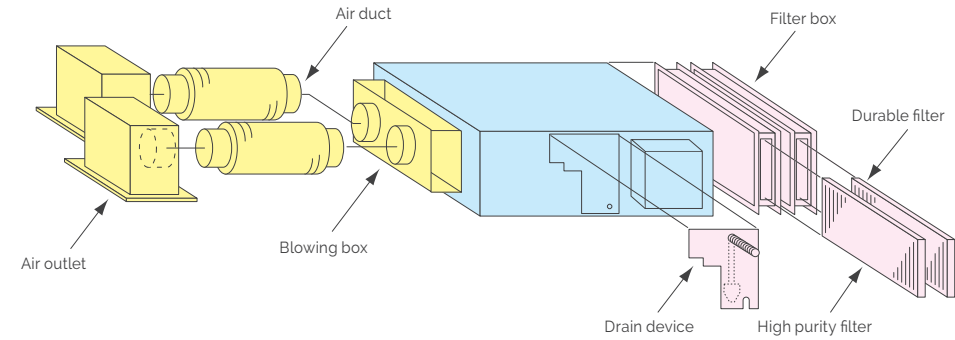


OPTIONAL PARTS

Creating high quality air-conditioning

Extra parts such as high purity filter and drain device are available.

Connection diagram of optional parts



Note: Remarked by pink color is optional part, and remarked by yellow color is standard part prepared in field.

(F Type)

General Data (FSNQH TYPE)

Model		RPI-0.8 FSNQH	RPI-1.0 FSNQH	RPI-1.3 FSNQH	RPI-1.5 FSNQH	RPI-1.8 FSNQH	RPI-2.0 FSNQH	RPI-2.3 FSNQH	RPI-2.5 FSNQH	RPI-3.0 FSNQH	RPI-3.3 FSNQH	RPI-4.0 FSNQH	RPI-5.0 FSNQH	RPI-6.0 FSNQH	RPI-8.0 FSNQ	RPI-10.0 FSNQ	
Power Supply		AC1Φ, 220V/60Hz														AC3Φ, 380V~415V/60Hz	
Nominal Cooling Capacity	kW	2.2	2.8	3.6	4.3	5.0	5.6	6.3	7.1	8.4	9.0	11.2	14.2	16.0	22.4	28.0	
Sound Pressure Level (Hi/Me/Lo)	dB(A)	35/33/31	35/33/31 [36/33/29]	35/33/31	35/33/31 [38/36/32]	35/33/31	35/33/31 [38/36/32]	36/34/32	36/34/32 [38/36/32]	42/39/35	42/39/35	43/40/36	44/41/37	45/41/37	50	52	
Outer Dimensions (WxDxH)	mm	650x720x270	650x720x270	650x720x270	650x720x270	650x720x270	650x720x270	650x720x270	650x720x270	650x720x270	650x720x270	650x720x270	650x720x270	650x720x270	650x720x270	650x720x270	
Net Weight	kg	26	26	26	26	35	35	35	35	46	46	46	58	58	85	95	
	(lbs)	(57)	(57)	(57)	(57)	(77)	(77)	(77)	(77)	(101)	(101)	(101)	(128)	(128)	(211)	(238)	
Refrigerant		R410A (Nitrogen-charged for Corrosion-resistance)															
Air Flow Rate (Hi/Me/Lo)	m³/min	8/7/6	8/7/6 [8.3/7.1/6.1]	13/11/9	13/11/9 [11.9/9.7/8.3]	15/13/11	15/13/11 [14.5/13/11]	16/14/12	16/14/12 [14.5/13/11]	25/21/17	25/21/17	27/23/19	37/31/25	38/35/29	58	72	
Motor Output	W	35	35	60	60	75	75	75	75	120	120	120	200	280	650	900	
Connections Refrigerant Piping		Flare-nut Connection (with Flare Nuts)														Brazing	
Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53	
	(in.)	(1/4)	(1/4)	(1/4)	(1/4)	(1/4)	(1/4)	(3/8)	(3/8)	(3/8)	(3/8)	(3/8)	(3/8)	(3/8)	(3/8)	(3/8)	
GasLine	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ19.05	Φ22.2	
	(in.)	(1/2)	(1/2)	(1/2)	(1/2)	(5/8)	(5/8)	(5/8)	(5/8)	(5/8)	(5/8)	(5/8)	(5/8)	(5/8)	(3/4)	(7/8)	
Condensate Drain		VP25 (Outer Diameter Φ32)															
External Static Pressure	Pa	50(80)	50(80)	50(80)	50(80)	50(80)	50(80)	50(80)	50(80)	120(90)	120(90)	120(90)	120(90)	120(90)	180	180	
Approximate Packing Measurement	m³	0.21	0.21	0.21	0.21	0.27	0.27	0.27	0.27	0.38	0.38	0.38	0.52	0.52	0.90	1.08	

Notes: The nominal cooling capacity is based on the following conditions :
Indoor Air Inlet Temperature : 27°C DB (80°F DB) ; 19.0°C WB (66.2°F WB)
Outdoor Air Inlet Temperature : 35°C DB (95°F DB)
Piping Length : 7.5m Piping Lift : 0m

- The sound pressure level is based on the following conditions. 1.5m beneath the unit. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field. When bottom air inlet is adopted, sound pressure will increase according to factors such as installation mode and the room structure.
- The data for external pressure indicates standard pressure setting values when air filter is not used.
- The figures between brackets [] are unique data for the models with metallic fan and fan casing. All models with capacity from 3.0 to 10HP are equipped with metallic fan and fan casing.

Model		RPI-22FC	RPI-28FT	RPI-36FR	RPI-45FM	RPI-50FF	RPI-56FN	RPI-63FS	RPI-72FE	RPI-80FL	RPI-90FK	
Power Supply		AC1Φ, 220V/60Hz										
Outer Dimensions (WxDxH)		620 x 250 x 550	620x250x550	760x250x550	940x250x550	940x250x550	940x250x550	1130x250x550	1130x250x550	1130x250x550	1130x250x550	
Nominal Cooling Capacity		kW	2.2	2.8	3.6	4.5	5.0	5.6	6.3	7.1	8	9
Sound Pressure Level (Hi/Me/Lo)		dB(A)	31/30/27	31/30/27	31/30/26	31/30/27	32/31/27	32/31/27	33/32/30	33/32/30	34/33/30	34/33/30
Fan Device	Static Pressure (High / Standard / Low)	Pa	(50x2/30/10/5	(50x2/30/10/5	(70x2/40/10/5	(70x2/40/10/5	(70x2/40/10/5	(70x2/40/10/5	(70x2/40/10/5	(70x2/40/10/5	(70x2/40/10/5	
	Air Flow (Hi/Me/Lo)	m ³ /min	8.8/8.5/7.5	8.8/8.5/7.5	11.5/11/9	13.5/13/11	14/13.5/12	14/13.5/12	17/16/14	17/16/14	18/17/15.5	18/17/15.5
	Motor Output	W	0.039	0.039	0.061	0.096	0.096	0.096	0.096	0.096	0.096	0.096
Main Refrigerant Piping	Gas Line	mm	Φ12.7 (With nuts)	Φ12.7 (With nuts)	Φ12.7 (With nuts)	Φ12.7 (With nuts)	Φ15.88 (With nuts)	Φ15.88 (With nuts)	Φ15.88 (With nuts)	Φ15.88 (With nuts)	Φ15.88 (With nuts)	Φ15.88 (With nuts)
	Liquid Line	mm	Φ6.35 (With nuts)	Φ6.35 (With nuts)	Φ6.35 (With nuts)	Φ6.35 (With nuts)	Φ6.35 (With nuts)	Φ6.35 (With nuts)	Φ9.53 (With nuts)	Φ9.53 (With nuts)	Φ9.53 (With nuts)	Φ9.53 (With nuts)
Condensate Drain			3/4" MPT	3/4" MPT	3/4" MPT	3/4" MPT	3/4" MPT	3/4" MPT	3/4" MPT	3/4" MPT	3/4" MPT	3/4" MPT
Net Weight		kg	24	24	28	33	33	37	37	37	37	37
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A

Model		RPI-112FQ	RPI-125FY	RPI-140FZ	RPI-160FJ	
Power Supply		AC1Φ, 220V/60Hz				
Outer Dimensions (WxDxH)		mm	940x350x800	1,300x350x800	1,300x350x800	
Nominal Cooling Capacity		kW	11.2	12.5	14	16
Sound Pressure Level (Hi/Me/Lo)		dB(A)	35/32/28x1	40/38/34x1	40/38/34x1	41/39/35x1
Fan Device	Static Pressure (High / Standard/ Low)	Pa	150/50/10	150/50/10	150/50/10	150/50/10
	Air Flow (Hi/Me/Lo)	m³/min	27/23/19x1	37/33/26x1	37/33/26x1	39/36/30x1
	Motor Output	W	0.25	0.25	0.25	0.25
Main Refrigerant Piping	Gas Line	mm	Φ15.88 (With nuts)	Φ15.88 (With nuts)	Φ15.88 (With nuts)	Φ15.88 (With nuts)
	Liquid Line	mm	Φ9.53 (With nuts)	Φ9.53 (With nuts)	Φ9.53 (With nuts)	Φ9.53 (With nuts)
Condensate Drain			3/4" MPT	3/4" MPT	3/4" MPT	3/4" MPT
Net Weight		kg	47	58	58	58
Refrigerant			R410A	R410A	R410A	R410A

Notes: Data in Specification List is measured according to following conditions.

- Cooling : Indoor temperature is 27°C(DB) / 19.0°C(WB) Outdoor temperature is 35°C(DB)
- Piping Length : 7.5m
- Piping Lift : 0m
- Noise value is measured at 1.5m of distance away from a center portion of unit body.

- A noise value is measured in a standard state of external static pressure, air is blown in back side, and filter is not closed the unit body. If downward blowing air is fixed, noise value is raised to 5dB. If settings between external static pressure and unit body are not different, noise value may be increased.
- Noise value is measured in the silent room, noise value of local location is raised by installation environment and reflected noise.
- Static pressure is set in a standard state while shipment.
- If using R407C or R22 refrigerant system at "3 remarked positions", please match with pipe at Φ19.05.



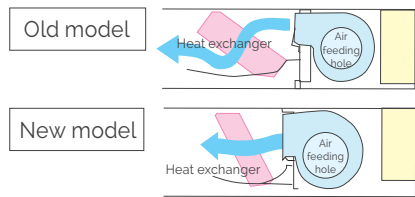
Main Functions

Optional parts	Vertical moving decorative frame	—
	Antibacterial cleaning filter	—
	High purity filter	●
	Deodorizing filter	—
Control	Total heat corresponding cross-linked operation	●
	Centralized remote correspondence	●
	Remote distance correspondence	●
	Control of 1 remote control group	●
	Operation of 2 remote controls	●
Maintaining construction	Wireless remote control correspondence	●
	Alarm diagnosis function	●
	Filter cleaning display	●
	Drain device (optional parts)	●
Comfort	Regular operation	●
	High ceiling correspondence	—
	Dehumidification	●
	3 sections of airflow adjustment	●
	Airflow angle option	—
	Auto swing	●

INSTANT COMFORT

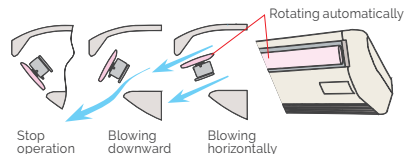
New Technology, Low Vibration, Low Noise

Large fan diameter improves ventilation efficiency, decreasing noise and vibrations greatly.



Large circular air outlet and automatic rotating device

The indoor unit features a large circular air outlet and an automatic rotating device to swing the blowing plate vertically. Upon stopping operation, the blowing plate automatically closes.

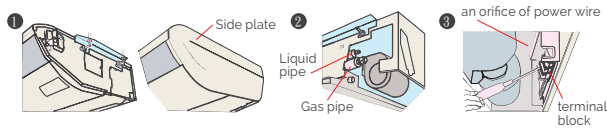


EASY INSTALLATION

Efficient Installation and Maintenance

30% faster installation time than old model.

1. The screw bolt is placed on one side of the indoor unit which makes adjusting the height convenient. The screw bolt is concealed into the side cover to enhance aesthetic appearance.
2. Accelerating installation time of the refrigerant pipe, and putting a protective cover that is open on one side for locking the indoor unit easily. Installation time for refrigerant pipe is cut short with an access through a protective cover on the side of the unit.
3. After wiring construction, the electric box should be left open to set and test operation.



OPTIONAL PARTS

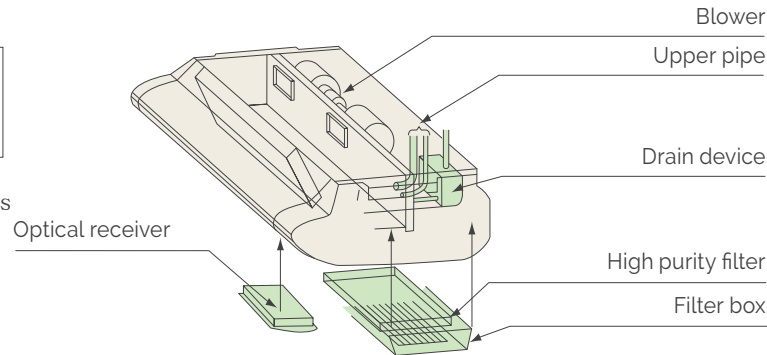
High Quality Additions

Extra accessories like high purity filter and drain device can be added

- An optical receiver can be used for wireless remote control for easy installation
- High purity filter can be added for cleaner comfort (extra filter box required)

Connection diagram of optional parts

Note: Remarked by green color is optional part



General Data

Model	RPC-1.5FSN3	RPC-2.0FSN3	RPC-2.5FSN3	RPC-3.0FSN3	RPC-4.0FSN3	RPC-5.0FSN3	RPC-6.0FSN3
Power Supply	AC1Φ, 220V/60Hz						
Nominal Cooling Capacity	4.0	5.6	7.1	8.0	11.2	14.0	16.0
Sound Pressure Level (Hi2/Hi/Me/Lo) dB(A)	37/35/31/28	38/35/31/28	38/35/32/29	40/37/33/29	44/42/37/32	48/45/41/35	49/47/42/36
Cabinet Color	Neutral White	Neutral White	Neutral White	Neutral White	Neutral White	Neutral White	Neutral White
Dimensions (HxWxD) mm	235x960x690	235x960x690	235x1.270x690	235x1.270x690	235x1.580x690	235x1.580x690	235x1.580x690
Net Weight kg	26	27	35	35	41	41	41
Refrigerant	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Air Flow Rate (Hi2/Hi/Me/Lo) m³/min (cfm)	15/13/11/9 (530/459/388/318)	15/13/11/9 (530/459/388/318)	19/16.5/14/11.5 (671/583/494/406)	21/18.5/15.5/12.5 (742/653/547/441)	30/26.5/22/17 (1,059/936/777/600)	35/31/25.5/20 (1,236/1,095/900/706)	37/32.5/27/21 (1,306/1,148/953/742)
Motor Output W	50	50	80	80	160	160	160
Connections	Flare-Nut Connection (With Flare Nuts)						
Liquid Line/Gas Line mm	Φ6.35/Φ12.7	Φ6.35/Φ15.88	Φ9.52/Φ15.88	Φ9.52/Φ15.88	Φ9.52/Φ15.88	Φ9.52/Φ15.88	Φ9.52/Φ15.88
Condensate Drain	VP20	VP20	VP20	VP20	VP20	VP20	VP20
Approximate Packing Measurement m³	0.23	0.23	0.31	0.31	0.38	0.38	0.38

Notes: 1. The nominal cooling capacity is for the standard HITACHI split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

Indoor Air Inlet Temperature : 27°C DB (80°F DB) ; 19.0°C WB (66.2°F WB)

Outdoor Air Inlet Temperature : 35°C DB (95°F DB) Piping Length : 7.5m Piping Lift : 0m

2. The sound pressure level is based on following conditions.
1.5m Beneath the Unit.

The above data was measured in an anechoic chamber so that reflected sound should be taken

Indoor Unit Inverter Slim Type Package

Highly Efficient, Power Saving.



QUICK COMFORT

Energy Efficiency

It uses minimal electricity to achieve maximum cooling and regulates a constant comfortable temperature for energy efficiency.

Power Saving

Ideal for office spaces and shops that have extended operating hours.

AION Filter

The indoor unit is equipped with high efficiency AION Air Filter Net that filters out germs and allergens such as dust, pollen and fungi.

General Data

Model		RPS-140AN
Power Supply		AC1Φ, 230V/60Hz
Outer Dimensions (WxDxH)	mm	600 X 350 X 1,900
Nominal Cooling Capacity	kW	14.0
Nominal Air Flow (Hi/Me/Lo)	m³/min	32/28/24
Fan Motor Output	kW x Q'ty	0.15x1
Main Refrigerant	Gas Line	mm
	Liquid Line	mm
Piping		Φ 9.53
Net Weight	kg	68
Refrigerant		R410A

Indoor Temperature:
Maximum : 32°C (DB) / 23°C (WB)
Minimum : 21°C (DB) / 15°C (WB)

Total Heat Exchanger

Reduce 35% of the work load.
Control air conditioner and heat
exchanger using H-LINK.



Y Type
(Slim)



Y Type



Z Type
(High static pressure)

IMPROVE AIR QUALITY

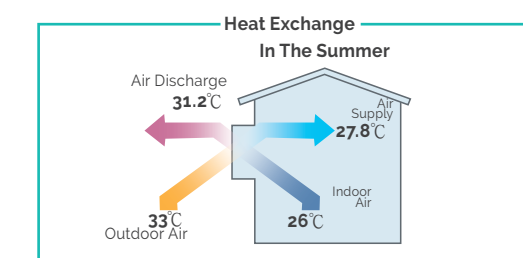
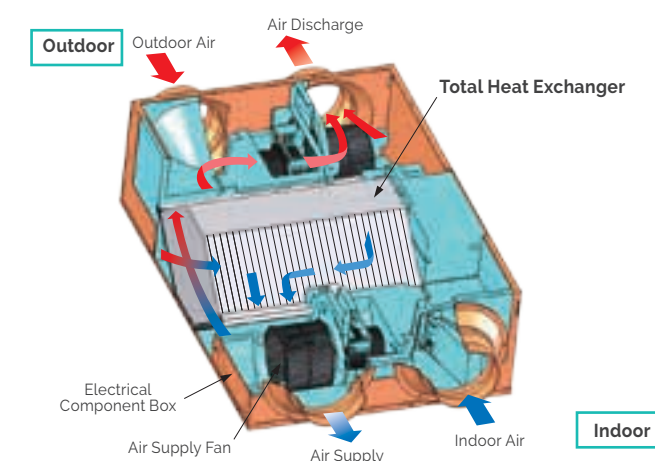
Some buildings are constructed to block sunlight out but in turn reduces quality of air indoors. Poor air quality may in turn cause bad performance from workers and even potential health problems.



ENERGY SAVING VENTILATION TECHNOLOGY

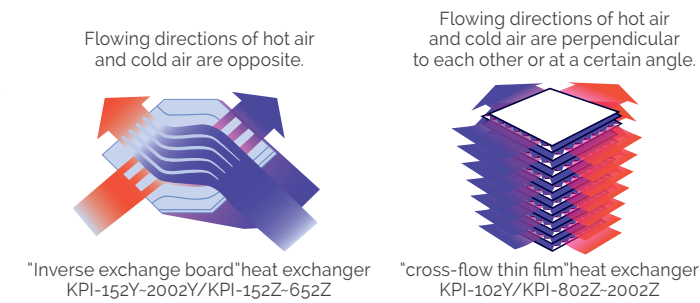
To maintain fresh air quality, the Hitachi Total Heat Exchanger exhausts air from the outside and guides cool air inside to lower the load of air conditioners.

1. Recycle loss of heat to minimize cooling waste
2. Reduced heat load minimizes air conditioning load.
3. Humidity is controlled and balanced between indoor and outdoor conditions for ultimate comfort.
4. Exhaust and air feeding is simultaneous for stable air flow.
5. Air duct and total heat exchanger has soundproofing properties to prevent outside noise coming in.



HIGH PERFORMANCE HEAT EXCHANGER

The Hitachi total heat exchanger features an inverse exchange board and cross-flow thin film to insulate air between outdoors and indoors and stops warm air from coming in.

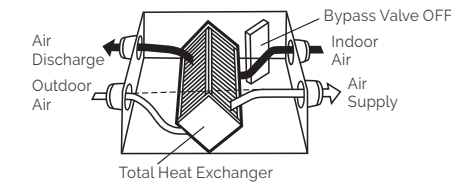


AUTOMATIC VENTILATION MODE

The most suitable ventilation mode is automatically determined depending on the temperature conditions outdoors and indoors to save energy.

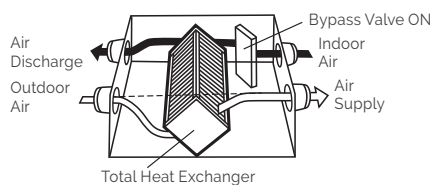
Total Heat Exchange Mode

Total heat exchange between outdoor and indoor conditions enhances indoor air quality by matching outdoor air temperature with room temperature.



Common Air Exchange Mode (Spring/Fall) (Only for 152 to 2002 type)

External air flows indoors for comfort



REMOTE CONTROL SETTING

Remote Control Function

The wired remote control can be used for the following functions:

- Turn the air conditioner and total heat exchanger on/off simultaneously
- Set individual operation setting for the total heat exchanger
- Set fan speed (Low to High)
- Set air exchange mode (Automatic / Total Heat Exchange / Common)
- Advance control for cooling and heating (30 min or 60 min delay start)
- On/Off Timer (from 30 minutes max of 24 hours)
- Enhance air flow (during Low and High operation)
- Check filter conditions

POWER SAVING

Fixed Total Heat Exchanger

Fixed total heat exchanging device achieves higher efficiency and saves more energy compared to the conventional rotating-wheel heat exchanger.

Positive and Negative Pressure Setting

Wind velocity indoors is set higher than exhaust velocity for positive indoor pressure. When wind velocity indoors is lower than exhaust velocity, negative pressure forms indoors.

EASY INSTALLATION

Simplified Wiring System

Compact indoor unit can virtually fit in any narrow space.

Maintenance of parts Simplified Wiring System

Non-polar two-core transmission wires are utilized to avoid connection errors and abnormal transmissions.

Parts can be accessed through the service access panel on the side of the unit

Unit can be installed upside down (for 152 to 2002 type only)

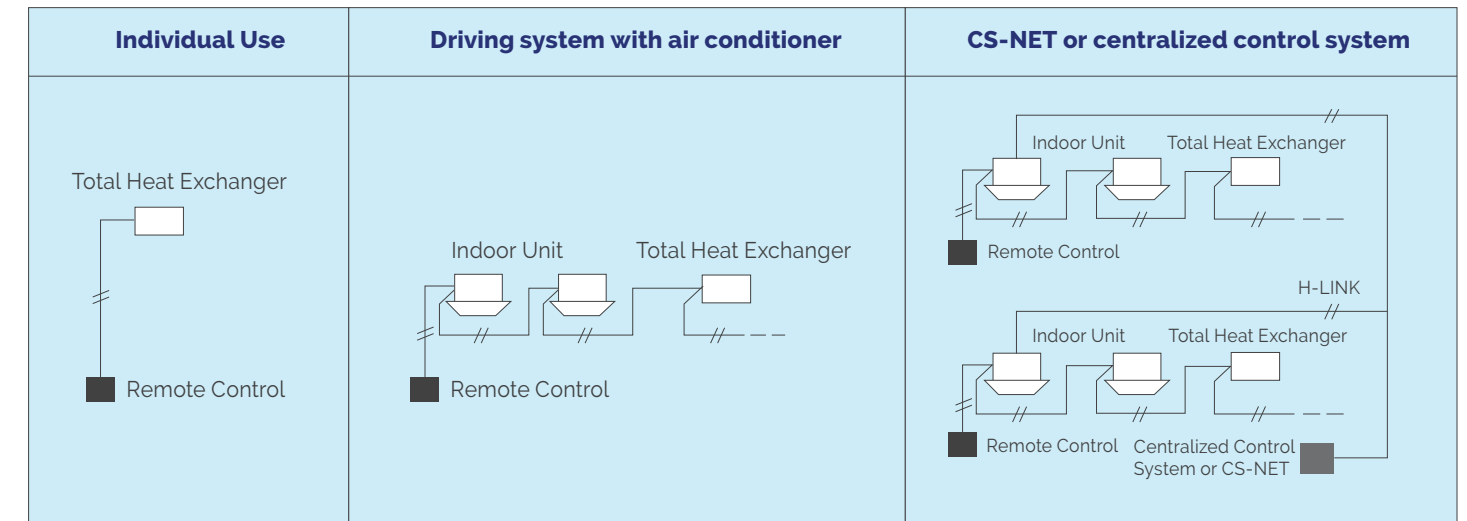
Retained Heat Elimination

Remote control keeps 3 minutes of operation to eliminate retained heat during stop operation.

CO2 Concentration Sensor

With a CO2 sensor (field supplied), CO2 concentration in the room can be reduced by increasing ventilation hence a more refreshing experience.

CONTROL EXAMPLE OF THE TOTAL HEAT EXCHANGER



General Data (Y Type)

Model of Total Heat Exchanger		KPI-102Y	KPI-152Y	KPI-252Y	KPI-352Y	KPI-502Y	KPI-652Y	KPI-802Y	KPI-1002Y	KPI-1502Y	KPI-2002Y
Power Supply		AC1Φ, 220V/60Hz									
Outer Dimensions (WxDxH)	mm	610x500x210	580x808x264	599x882x270	804x882x270	904x962x270	884x1,222x340	884x1,322x388	1,134x1,322x388	884x1,322x785	1,134x1,322x785
Air Flow	m³/h	100	150	250	350	500	650	800	1,000	1,500	2,000
External Static Pressure	Pa	80	75	85	90	100	70	120	85	75	60
Heat Recovery	Cooling	%	55	63	63	66	62	62	65	65	65
Efficiency	Heating	%	65	70	70	69	67	68	71	71	71
Temperature Efficiency	%	73.5	75	75	75	75	75	75	75	75	75
Sound Pressure Level	dB(A)	30.5	26	27	31	33	35	38	38	41	41
Motor Output	W	35	10x2	20x2	40x2	60x2	180x2	180x2	180x2	180x4	180x4
Net Weight	kg	20	25	29	37	43	64	71	83	165	189
Connecting Diameter of Air Duct	mm	Φ75	Φ144	Φ144	Φ144	Φ194	Φ194	Φ242	Φ242	□650x280	□650x280

(Z Type) High static pressure

Model of Total Heat Exchanger		KPI-152Z	KPI-252Z	KPI-352Z	KPI-502Z	KPI-652Z	KPI-802Z	KPI-1002Z	KPI-1502Z	KPI-2002Z
Power Supply		AC1Φ, 220V/60Hz								
Outer Dimensions (WxDxH)	mm	599x882x270	804x882x270	904x962x270	884x1,222x340	884x1,322x388	834x1,126x388	1,216x1,129x388	834x1,126x776	1,216x1,129x776
Air Flow	m³/h	150	250	350	500	650	800	1,000	1,500	2,000
External Static Pressure	Pa	155	160	200	200	220	170	195	180	190
Heat Recovery	Cooling	%	75	67	70	62	67	61	64	62
Efficiency	Heating	%	76	73	73	69	73	67	72	68
Temperature Efficiency	%	79	76	75	74	76	74	77	74	77
Sound Pressure Level	dB(A)	28	29	33	34	36	38.5	38.5	41.5	41.5
Motor Output	W	20x2	40x2	60x2	180x2	180x2	200x2	200x2	200x4	200x4
Net Weight	kg	29	37	43	64	71	60	73	140	163
Connecting Diameter of Air Duct	mm	Φ144	Φ144	Φ194	Φ194	Φ242	Φ242	Φ242	□650x280	□650x280

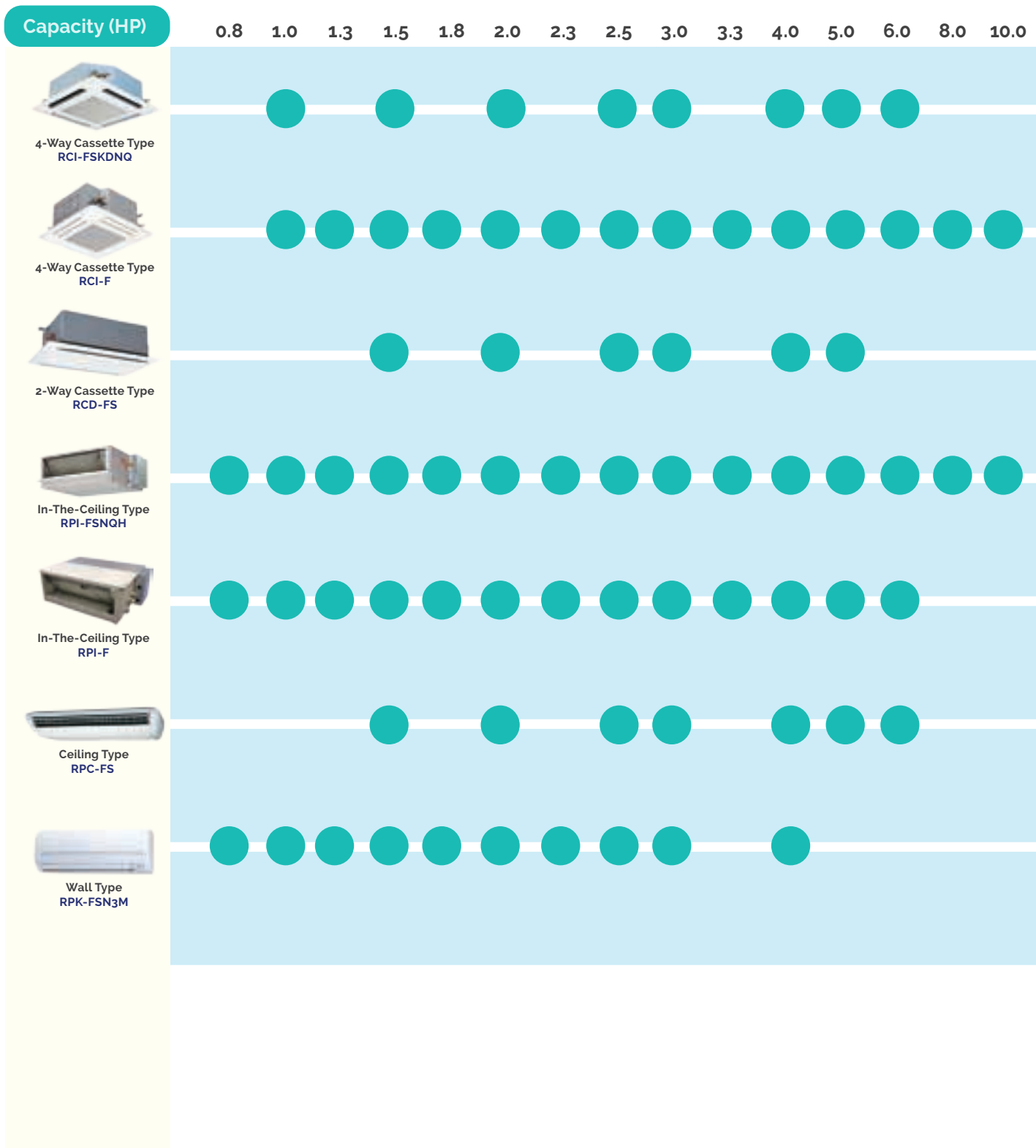
Notes:

- General date is based on following conditions:
 - Cooling: Indoor temperature is 27°C (DB)/20°C (WB) Outdoor temperature is 3°C (DB)/29°C (WB)
 - Heat recovery efficiency is measured at standard external static pressure and under ratio of 7:1 when outdoor side is against indoor side.
 - Temperature efficiency: the average air-conditioning and heating.
 - The test is in compliance with JID standard and is measured at 1.5m below a center of each of indoor units.
- Noise value is measured in the silent room, noise value of local location is raised by installation environment and reflected noise.
- Noise value is measured at external static pressure (standard static pressure) listed above. If external static pressure and standard static pressure are different, noise value may be raised.
- Noise in air outlet is around 8-11dB, when position of the air outlet is close to the unit body, the operating noises leaks out of air outlet via air duct, thereby making noise loudly. The larger air volume of unit model is, the louder noises make. If the indoor unit is fixed in silent space, such as classrooms or libraries, please have soundproofing construction, and some suggestions for soundproofing construction are listed as follows:
 - Installing silencer box and silencer tube.
 - Wrapping soundproof material around audio position.
 - Having soundproofing construction of ceiling.
 - Arranging air outlets evenly.
 - Adjusting fixing position of unit body.

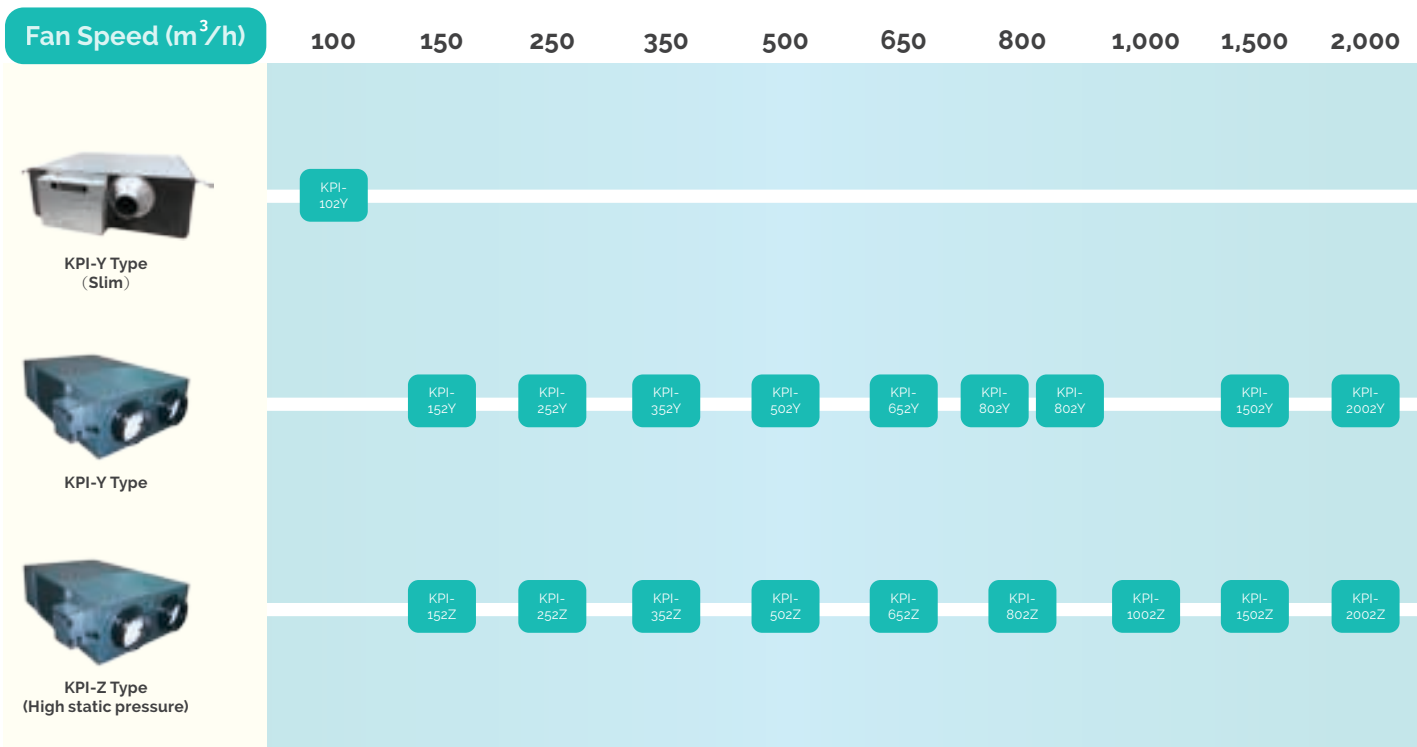
HITACHI Indoor Units

Full Range of Products

● Indoor Units



● Total Heat Exchanger



LIST OF OPTIONAL PARTS

4-Way Cassette Type

NO	Optional Parts	Model	Applicable models	Notes
1.	Vertical moving decorative frame	P-AP160NAU2	RCI-28FT-160FJ	
	Standard moving decorative frame	P-AP160NA2	RCI-1.0-5.0FSN2	Design for wide-angle airflow
2.		P-N23NAT	RCI-28FT-160FJ	
3.	Standard cleaning filter	F-23L4	RCI-1.0-5.0FSKDNQ, RCI-28DT-160DJ	For replacing standard moving decorative frame
4.	Antibacterial cleaning filter	F-23L4-KS	RCI-1.0-2.5FSKDNQ, RCI-28DT-56DN	
		F-23L4-K	RCI-3.0-5.0FSKDNQ, RCI-63DS-160DJ	For Standard moving decorative frame
	High purity filter (Colorimetry 65%)	F-23M4	RCI-1.0-2.5FSKDNQ, RCI-28DT-56DN	
5.		F-46M4	RCI-3.0-5.0FSKDNQ, RCI-63DS-160DJ	Use for matching with filter box
	Antibacterial purity filter (Colorimetry 65%)	F-23M4-K	RCI-1.0-2.5FSKDNQ, RCI-28DT-56DN	
6.		F-46M4-K	RCI-3.0-5.0FSKDNQ, RCI-63DS-160DJ	Use for matching with filter box
	High purity filter (Colorimetry 90%)	F-23H4	RCI-1.0-2.5FSKDNQ, RCI-28DT-56DN	
7.		F-46H4	RCI-3.0-5.0FSKDNQ, RCI-63DS-160DJ	Use for matching with filter box
	Deodorizing filter	F-23L4-D	RCI-1.0-2.5FSKDNQ, RCI-28DT-56DN	
8.		F-46L4-D	RCI-3.0-5.0FSKDNQ, RCI-63DS-160DJ	Use for matching with filter box
9.	Filter box	B-23H4	RCI-1.0-5.0FSKDNQ, RCI-28DT-160DJ	
	Electronic dust collector	FE-23I8S	RCI-1.0-2.5FSKDNQ, RCI-28DT-56DN	
10.		FE-33I8	RCI-3.0-5.0FSKDNQ, RCI-63DS-160DJ	Deodorizing filter is included
	Exchanger for Electronic dust collector	FE-23I8ESx1	RCI-1.0-2.5FSKDNQ, RCI-28DT-56DN	
11.		FE-33I8ESx2	RCI-3.0-5.0FSKDNQ, RCI-63DS-160DJ	For replacing electronic dust collector
12.	Shielding plate	PI-23LS5	RCI-1.0-5.0FSKDNQ, RCI-28DT-160DJ	For air outlets

2-Way Cassette Type

NO	Optional Parts	Model	Applicable models	Notes
	Standard moving decorative frame	P-N23DNA	RCD-1.0-3.0FSN2	
1.		P-N46DNA	RCD-4.0-5.0FSN2	
	Standard cleaning filter	F-23LD3	RCD-1.0-3.0FSN2	
2.		F-46LD3	RCD-4.0-5.0FSN2	
	Antibacterial cleaning filter	F-23LD4-K	RCD-1.0-3.0FSN2	For replacing standard moving decorative frame
3.		F-46LD4-K	RCD-4.0-5.0FSN2	
	High purity filter (Colorimetry 65%)	F-23MD4-P	RCD-1.0-3.0FSN2	For Standard moving decorative frame
4.		F-46MD4-P	RCD-4.0-5.0FSN2	
	High purity filter (Colorimetry 65%)	F-23MD4	RCD-1.0-3.0FSN2	Use for matching with filter box
5.		F-46MD4	RCD-4.0-5.0FSN2	
	Antibacterial purity filter (Colorimetry 65%)	F-23MD4-K	RCD-1.0-3.0FSN2	Use for matching with filter box
6.		F-46MD4-K	RCD-4.0-5.0FSN2	
	High purity filter (Colorimetry 90%)	F-23HD4	RCD-1.0-3.0FSN2	Use for matching with filter box
7.		F-46HD4	RCD-4.0-5.0FSN2	
	Deodorizing filter	F-23LD4-D	RCD-1.0-3.0FSN2	Use for matching with filter box
8.		F-46LD4-D	RCD-4.0-5.0FSN2	
	Filter box	B-23HD4	RCD-1.0-3.0FSN2	
9.		B-46HD4	RCD-4.0-5.0FSN2	

In-the-Ceiling Type (N Type)

NO	Optional Parts	Model	Applicable Models	Notes
		F-S14	RPI-22NC-28NT	
		F-S15	RPI-36NR-56NN	
1.	Durable filter	F-S16	RPI-63NS-90NK	
		F-S9	RPI-112NQ	
		F-S10	RPI-140NZ・160NJ	
		F-34MI3	RPI-112NQ	
2.	High purity filter (Colorimetry 65%)	F-46MI3	RPI-140NZ・160NJ	Do not use with High purity filter
		F-34HI3	RPI-112NQ	
3.	High purity filter (Colorimetry 90%)	F-46HI3	RPI-140NZ・160NJ	Use for matching with filter box
		B-34MI3	RPI-112NQ	
4.	Filter box	B-46MI3	RPI-140NZ・160NJ	Use for matching with filter box
		DP-C1	RPI-22NC-90NK	
5.	Drain device	DUPI-162	RPI-112NQ-160NJ	Built-in Installation

LIST OF OPTIONAL PARTS

Controlling System

NO	Part Name	Model	Function Description
1.	Remote control switch	PC-AR	Individually or simultaneously (up to 16 items) controls indoor unit and monitoring LCD remote control.
2.	High-performance wired remote control switch	PC-ARF	Individually or simultaneously (up to 16 items) controls indoor unit and monitoring LCD remote control.
3.	Wired controller for Hotels	PC-ARH	Individually or simultaneously (up to 16 items) controls indoor unit and monitoring LCD remote control.
4.	Wireless remote control	PC-LH3A	Obtains various controls in a wireless manner, so wiring is not required.
5.	Optical receiver	PC-ALH	Receives wireless remote-control signal (applicable for 4-Way Cassette Type).
		PC-ALHD	Receives wireless remote-control signal (applicable for 2-Way Cassette Type).
		PC-ALHP	Receives wireless remote-control signal (applicable for Ceiling Type).
		PC-ALHZ	Receives wireless remote-control signal (applicable for In-the-ceiling Type and Wall Type).
6.	Centralized ON/OFF controller	PSC-A16RS	Individually or simultaneously operates 16 indoor units, and displays operation and fault of each indoor unit.
7.	Central station	PSC-A64S	Controls up to 160 indoor units of 64 groups in 4 interval spaces, and individually or simultaneously operates each group, and displays operation and fault of each indoor unit.
8.	Standard centralized controller	PSC-5s (H-LINK II Non-correspondence)	Controls up to 128 indoor units of 16 groups, and individually or simultaneously operates each group, and displays operation and fault of each indoor unit.
9.	7 days timer	PSC-AIT	Matches with wired remote control and centralized controller to set daily operating schedule in a week, and sets three times of operation in a day.
10.	Central station controller EZ	PSC-A64GT	Has 8.5-inch touch screen, controls up to 160 indoor units of 64 groups in 4 interval spaces, and individually or simultaneously operates each group, and displaying operation and fault of each indoor unit.
11.	H-LINK relay	PSC-5HR	Relays more than 1,000 m of H-LINK wiring
12.	Remote control interface	PSC-5RA	Output unit signal for monitoring host of building management
13.	Central station controller DX DX management software	PSC-A128WX + PSC-AS2048WXB	Controls 160 indoor units via local area network, individually or simultaneously operates each indoor unit (including calculating use ratio of easy air conditioner).
14.	Air conditioner control interface	HARC70-P1	Lonworks [®] for integrated management of BMS Building air conditioning system (less management point)
		HC-A64BNP	BACnet [®] for integrated management of BMS Building air conditioning system
		HC-A32MB	MODbus for integrated management of BMS Building air conditioning system
		HC-A8LAN	Ethernetnet [®] for integrated management of BMS Building air conditioning system
		HARC-BX	Lonworks [®] for integrated management of BMS Building air conditioning system (more management point)
15.	Shielded twist pair cable	—	Prevents operating error resulting from noises (specification: UL2990#18×2C+AEB)

Others

NO	Part Name	Model	Applicable Model (for first multi-kit and uniform piping)	Notes
1.	Multi-Kit (Γ Type)	E-NP282S	RAM- 8 ~10MQ(D), RAM-125 RAM-140FPS(B)	For high-powered models, determine pipe quantity according to total capacity of indoor unit.
		E-NP452S	RAM-12~18MQ(D) RAM-200~270FPS(D)	
		E-NP692S	Modular 20~24MQ(D)	
		E-NP902S	Modular 26~54MQ(D)	
2.	Multi-Kit (Υ Type)	MW-102AN	6~10HP	
		MW-162AN	12~18HP	
		MW-242AN	Modular 20~24MQ(D)	
		MW-302AN	Modular 26~54MQ(D)	
3.	Lock-Type Multi-Kit	E-NP224N	RAM-8MQ(D)	2PC/units
4.	Baffle	AG-335AT	RAM-125~140FPS(B) RAM-200~270FPS(D)	

● Memo