



**HITACHI**  
Inspire the Next

**UTOPIA**  
**IVX**  
DC Inverter

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Packaged Air Conditioning Systems

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R410A

# Towards the Future from an "Environmental Viewpoint"

To make human life more comfortable while protecting Mother Nature- that's our vision of the future.

And into this future, human and nature go hand-in-hand. The "Environmental Viewpoint" is Hitachi's starting point and eternal theme.

Through our advanced technology, we continue to strive to make our vision for the earth and its people a reality.



# UTOPIA IVX DC Inverter



The letters of IVX have the following meanings;

“ I ” : **I**ndividual operation

“ V ” : **V**ariable refrigerant flow

“ X ” : **e X**cellent control

IVX is also “410” in Roman numerals because R410A refrigerant is used.

R410A

Compatible with  
the **H-LINK II**

## Product Features of "UTOPIA IVX DC Inverter"

Easy installation just like the current packaged air conditioning systems for commercial use, etc., and now with an individual operating function added-on as a standard feature.

- Energy-saving with improved comfort
- Sudden additions or changes to partitions are handled simply by adding remote control units
- Simplifies the construction steps and shortens construction time by reducing the number of outdoor units

### Environmentally Considerate

- Improved living environment by reducing noise
- Improved recyclability by cutting down on starting materials
- Prevention of global warming by pursuing energy-saving performance
- Adopts HFC Refrigerant (R410A) with Zero Ozone Depletion Potential

# Individual Operating Function

For individual operating function, up to 4 indoor units can be controlled.



The UTOPIA IXV Series are perfect for users who find that the current packaged air conditioning systems for commercial use, etc. are inadequate, but multi-split system air conditioners for buildings may be overspecified.



## Comfortable and Energy-saving

### Current Air Conditioner without Individual Operating Function

If the indoor unit in the low-load area is stopped with a remote control when the set temperature is reached, the indoor unit in the high-load area also stops.

#### ● During Cooling

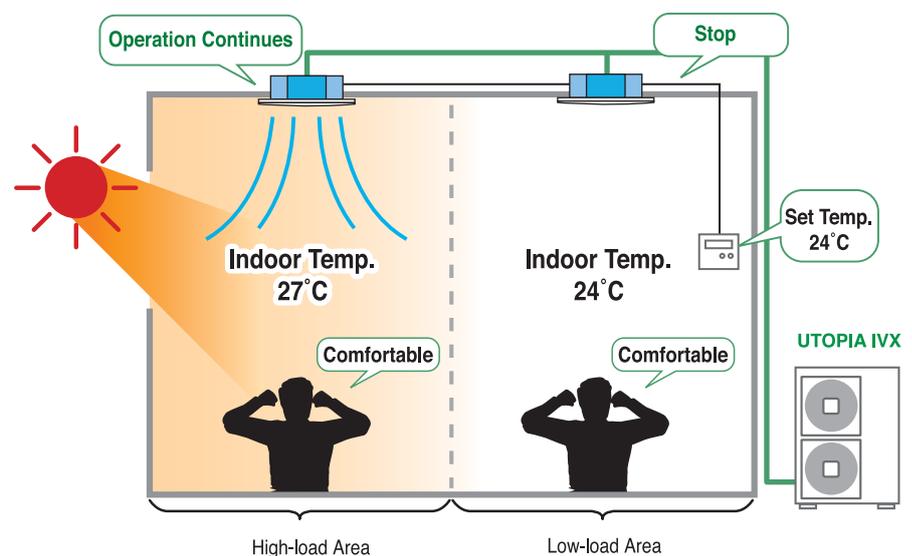
	Indoor Temperature Setting for High Load
High-load Area	○ Comfortable
Low-load Area	✗ Cold

#### ● During Heating

	Indoor Temperature Setting for Low Load
High-load Area	✗ Hot
Low-load Area	○ Comfortable

### UTOPIA IXV DC Inverter with Individual Operating Function

Even if an indoor unit in the low-load area which has reached the set temperature stops, an indoor unit in the high-load area continues to function. Operation with unbalanced loads in the same room is possible.



## Flexible Design and Easy Installation

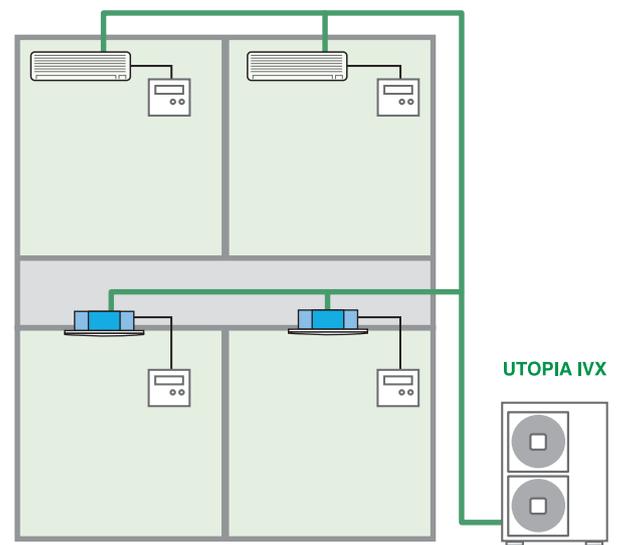
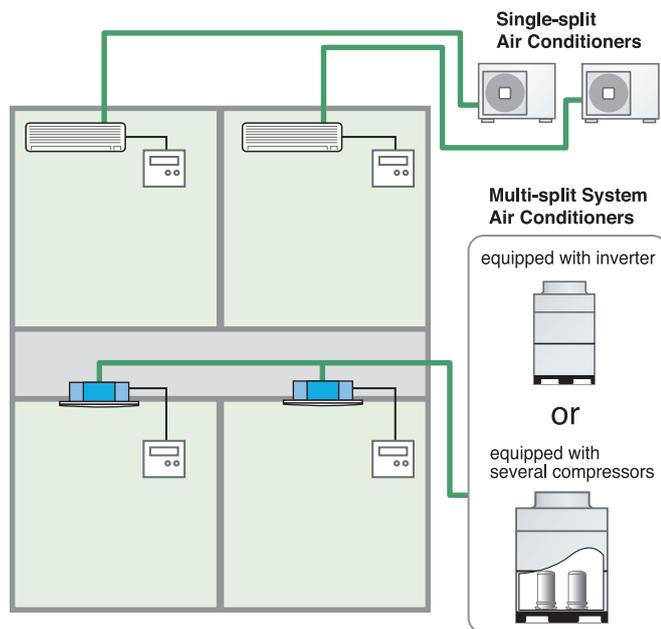
### Current Air Conditioner without Individual Operating Function

It is necessary to select a single-split or multi-split system air conditioner based on the layout or design of the room when planning the room air conditioning. However, the higher cost for installation and equipment during the construction period is a problem.



### UTOPIA IVX DC Inverter with Individual Operating Function

For the compact UTOPIA IVX DC Inverter with individual operating function as a standard feature, however, air conditioning suitable for the usage or design of the room can be achieved by combining one outdoor unit and a wide selection of indoor units. In addition, installation cost and construction period can be largely reduced compared with the current model.



## ■ A sudden change of layout can be handled simply by adding a remote control switch.

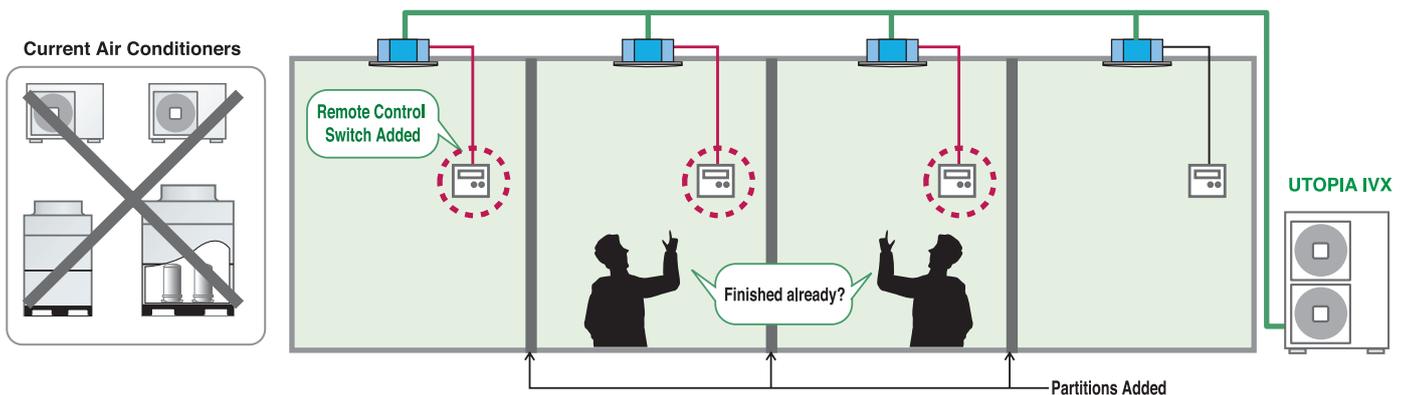
### Current Air Conditioner without Individual Operating Function

A sudden room layout change requires replacement with a number of single-split air conditioners, inverter air conditioners, or multi-split air conditioners equipped with several compressors. Therefore, the equipment cost, installation cost and construction period are almost the same as when installing a new air conditioner.



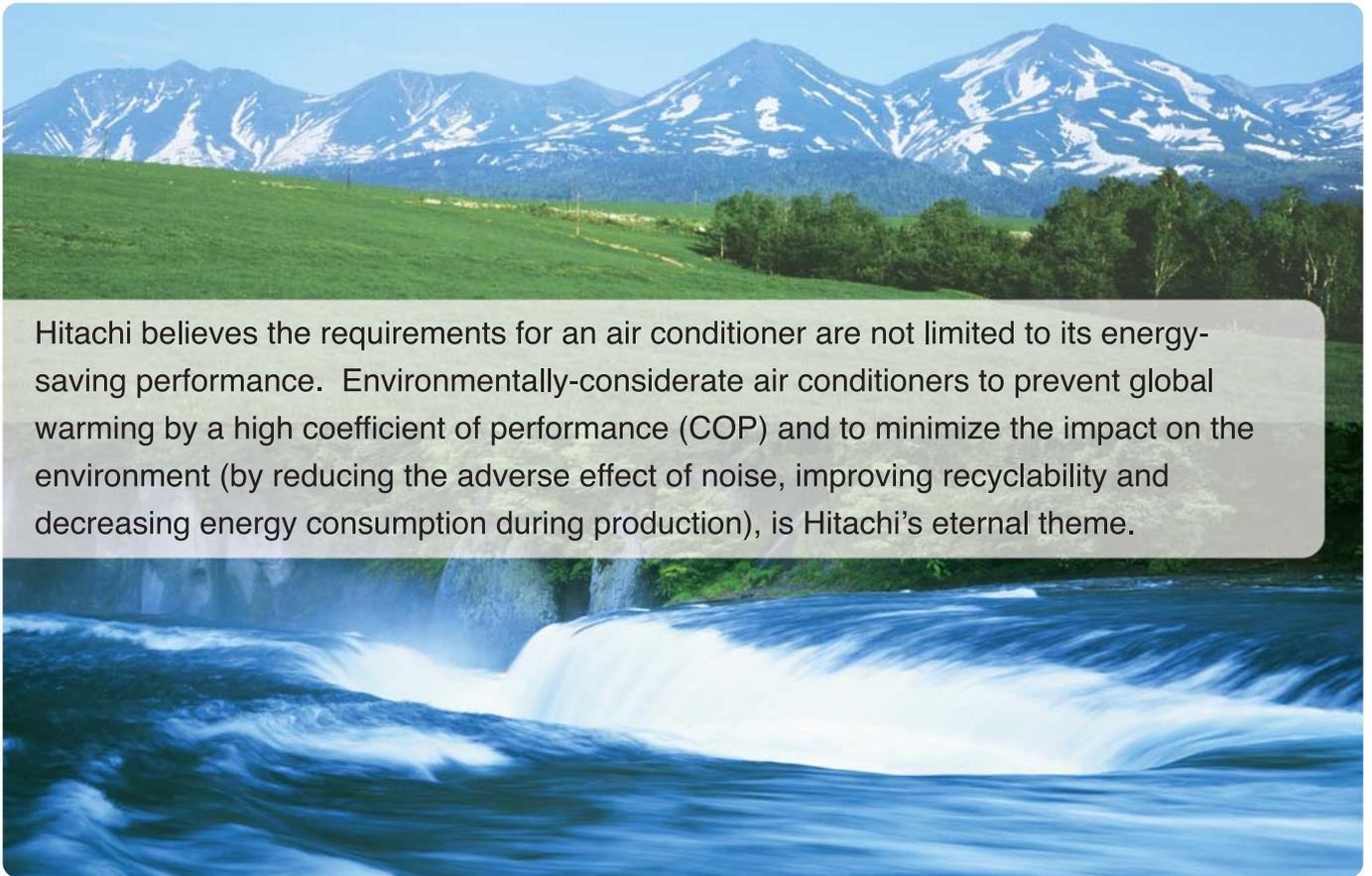
### UTOPIA IVX DC Inverter with Individual Operating Function

Individual operating function can be performed simply by adding a remote control switch. No additional outdoor units or large-scale construction is required.



# Environmentally Considerate

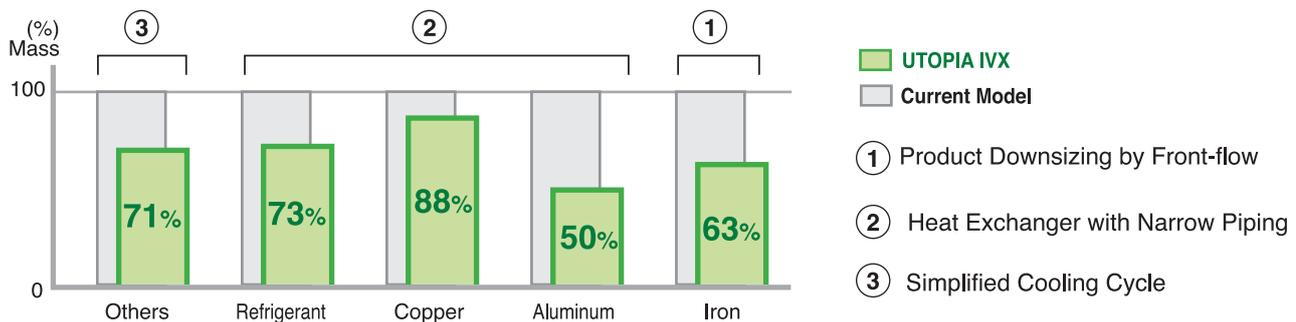
Compact, High-performance → Lowest Environmental Load



Hitachi believes the requirements for an air conditioner are not limited to its energy-saving performance. Environmentally-considerate air conditioners to prevent global warming by a high coefficient of performance (COP) and to minimize the impact on the environment (by reducing the adverse effect of noise, improving recyclability and decreasing energy consumption during production), is Hitachi's eternal theme.

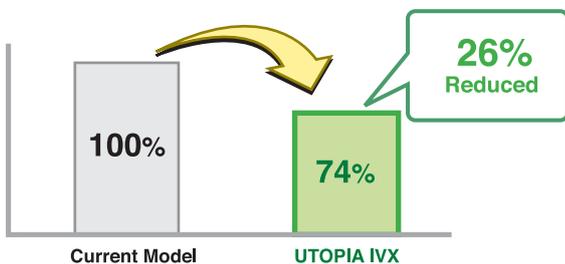
## The Challenge of Natural Resource-saving

Compared with the current model of the same HP, the mass of material used has been successfully reduced as shown in the figure.

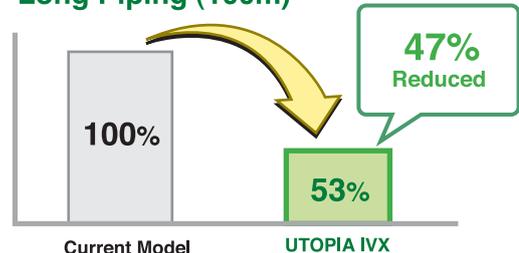


## Refrigerant-saving

### Quantity of Refrigerant Charge at Shipment

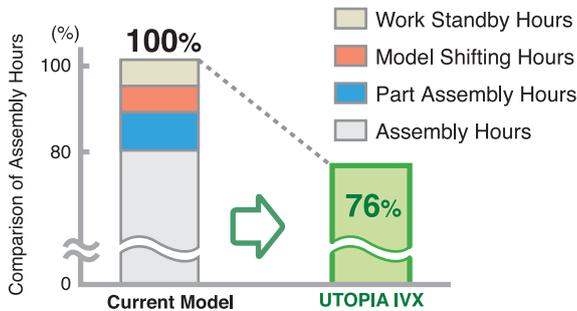


### Quantity of Refrigerant Charge for Long Piping (100m)

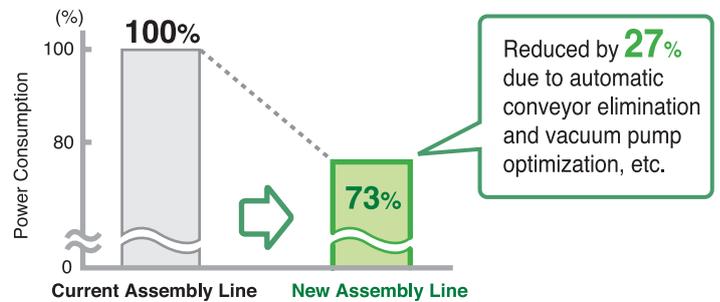


## Production Energy-saving

### ■ Comparison of Assembly Man-hours



### ■ Comparison of Power Consumption



## Improvement of Noise Reduction Technology

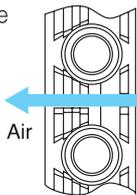
### ■ Super High-stream Fan

Low noise due to proper speed distribution in radial direction of the blades.



### ■ New Fin with Less Pressure Loss

Ventilating resistance reduced by 20%. High efficiency and low noise simultaneously achieved.



### ■ DC Fan Motor

Disturbing noise from the generation source is cut by smooth rotation with reduced vibration.

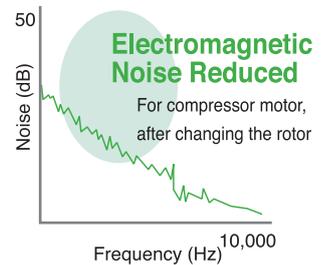
### ■ Flat Noise

DC fan motor control reduces irritating electromagnetic noise and acoustics.



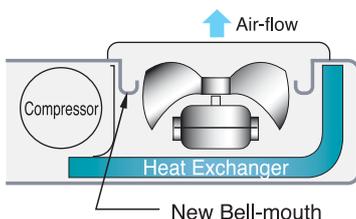
### ■ Reduced electromagnetic noise of compressor reduced.

Rotor shape optimized  
Electromagnetic noise reduced

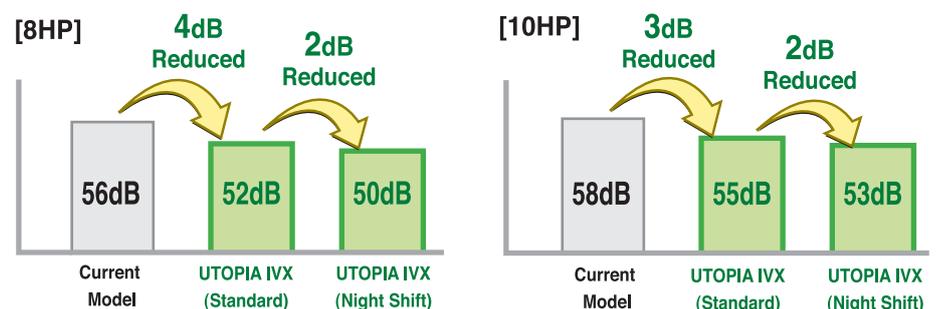


### ■ Adoption of New Bell-mouth

The new bell-mouth (resin mold) minimizes flow friction, resulting in smooth flow and low sound.



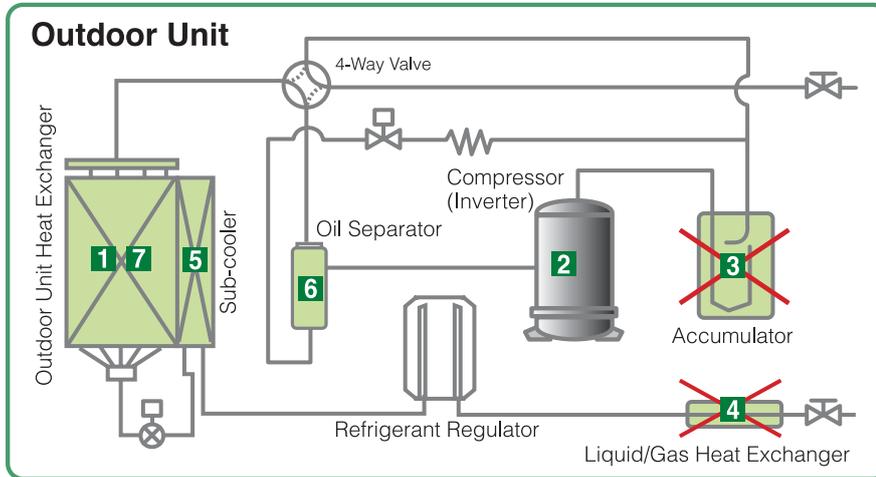
### Comparison of Noise with Current Models



# Advanced Technology

Hitachi's technology allows energy-saving and easy installation of the "UTOPIA IVX DC Inverter" with

## Energy-saving, Weight-saving, and Downsizing Technology



### 3 Accumulator-free Cycle

Compressor inlet dryness is assured by bypass circuit.

### 4 No Liquid/Gas Heat Exchanger

Performance is improved by heat exchanger with narrow piping and subcooler.

### 5 Improved Performance of Subcooler Supercooling Circuit

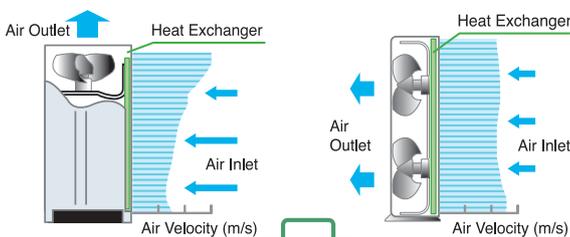
Performance improved by enlarged heat transfer area of outdoor unit and subcooler heat exchanger.

### 1 Technology to Improve Heat Exchanger Performance

In the front-flow model, wind speed distribution is rendered uniform by making the direction of the wind flow to the fan and the heat exchanger the same. As a result, the performance of the heat exchanger is optimized and energy is saved.

Current Model (Top-flow Type)

UTOPIA IVX (Front-flow Type)



Current Model (Top-flow Type)

UTOPIA IVX (Front-flow Type)

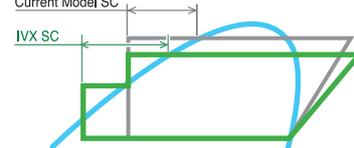


● Mollier Diagram

UTOPIA IVX

Current Model

Cooling ability enhanced by subcooler layout modification.



#### ● Ventilation Resistance Reduction Effect



#### ● Fan Motor Energy Reduction Effect



### 2 High-performance Compressor Technology

**Slewing bearing**  
High durability slewing bearing

**New Drive Mechanism**  
Oil control mechanism (patented)

**Main/Sub Bearings**  
Reduced mechanical loss and improved reliability by using roller bearing.



**Asymmetric Scroll Lap**  
Improved performance by reducing leakage loss and intake loss

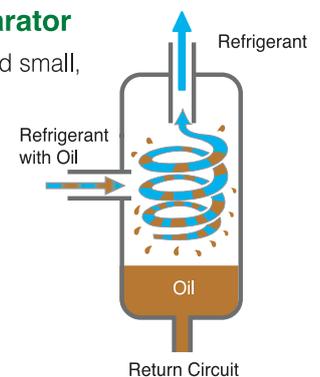
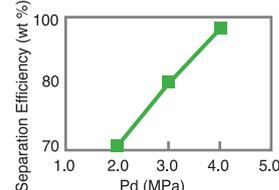
**DC Inverter Motor**  
Neodymium permanent magnet

**Oil Feeding Structure**  
Performance improved by reducing thermal fluid loss

**Trochoid pump**  
Improved reliability by using trochoid pump

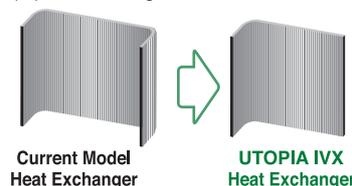
### 6 Downsized Oil Separator

Internal oiling compressor and small, high-performance centrifugal separation type oil separator



### 7 Downsized Heat Exchanger

Heat exchanger with narrow pipe for refrigerant

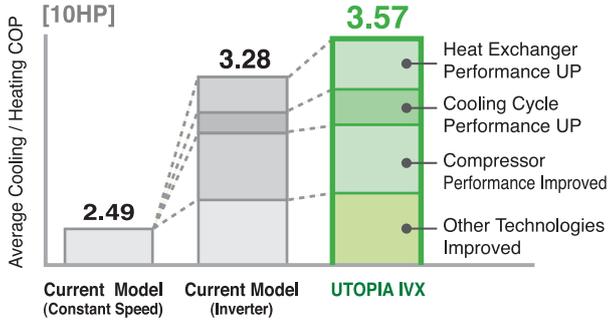


	Current Model	UTOPIA IVX
Pipe Diameter (mm)	φ9.53	φ7
Mass ratio	Aluminum	41% → 31%
	Copper	59% → 49%
Total	100%	80%

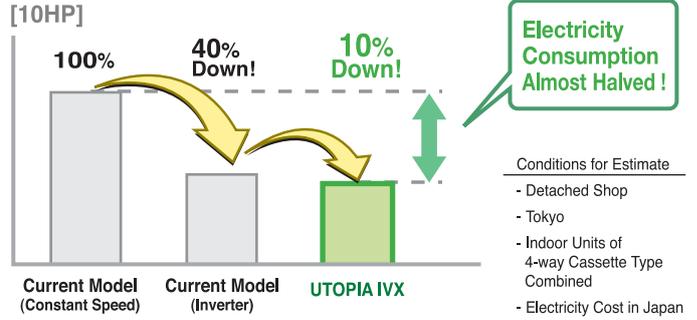
individual operating function.

## COP Comparison

(Indoor Units of 4-way Cassette Type Combined)



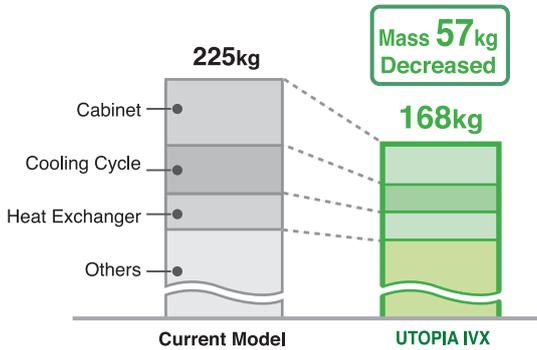
## Annual Electricity Consumption



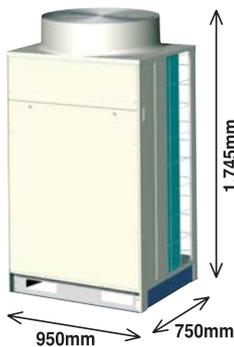
## Top-class Compact and Light Weight Design

Facilitation and flexibility at installation are further advanced by adopting outdoor unit's lightweight and compact design compared to the current top-flow model.

### Net Weight Composition Ratio (10HP)



### Current Model (10HP) Top-flow Type



### UTOPIA IVX (10HP) Front-flow Type



**Cubic Measure Ratio**  
43% Decreased

**Floor Area Ratio**  
40% Decreased

**Mass**  
25% Decreased

## Compact Size and Space-saving! Can Handle High Loads.

(Example) For 60HP System:

(Hitachi's Comparison)

Current 60HP System:  
10HP x 6 Units (Floor Area 4.3m<sup>2</sup>)



UTOPIA IVX 60HP System:  
12HP x 5 Units (Floor Area 2.1m<sup>2</sup>)

**Installation Space**  
50% Decreased



*Only HITACHI provides a 12 HP front flow design (as of Oct. 2006).*

# System Configuration

The UTOPIA IVX DC Inverter with individual operating function as a standard feature allows air conditioning to be suitable for a wide range of room layouts, from large areas to small individual spaces for maximum comfort.

## Twin Individual Operation for Two Units



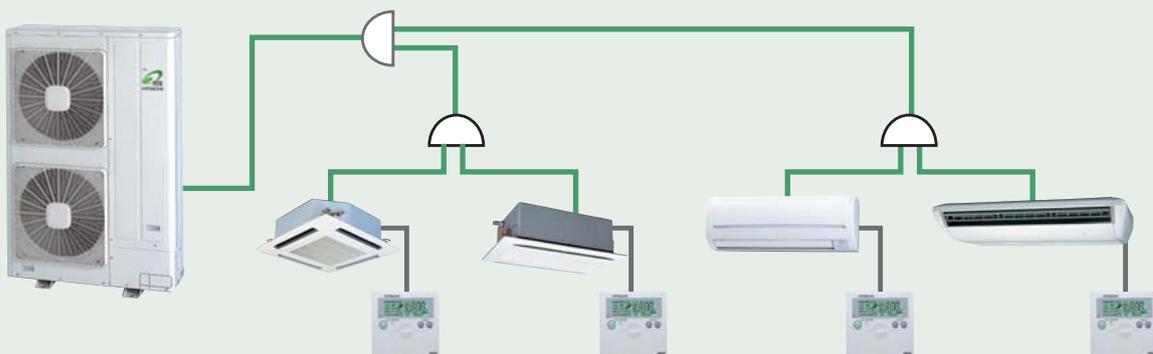
\* Simultaneous operation is possible.

## Triple Individual Operation for Three Units



\* Simultaneous operation is possible.

## Quad Individual Operation for Four Units



\* Simultaneous operation is possible.

# Line Up

## Outdoor Units

		(HP)		
		8	10	12
		●	●	●

## Indoor Units

		(HP)						
		(1.8)*	2.0	(2.3)*	2.5	3.0	4.0	5.0
	4-Way Cassette RCI-FSN2	●	●	●	●	●	●	●
	2-Way Cassette RCD-FSN2	●	●	●	●	●	●	●
	In-the-ceiling RPI-FSN2	●	●	●	●	●	●	●
	Ceiling RPC-FSN2	●	●	●	●	●	●	●
	Wall RPK-FSNM2	●	●	●	●	●	●	—

		(m <sup>3</sup> /h)			
		250	500	800	1,000
	Total Heat Exchanger KPI	●	●	●	●

## Indoor Unit Horsepower Combination

Combination	RAS-8HRNM (8HP)				RAS-10HRNM (10HP)				RAS-12HRNM (12HP)			
Twin	4.0	4.0	—	—	5.0	5.0	—	—	—	—	—	—
	5.0	3.0	—	—	—	—	—	—	—	—	—	—
Triple	3.0	3.0	3.0	—	3.0	3.0	3.0	—	4.0	4.0	4.0	—
	3.0	3.0	2.5	—	4.0	3.0	3.0	—	—	—	—	—
	3.0	2.5	2.5	—	—	—	—	—	—	—	—	—
	3.0	3.0	(2.3)*	—	—	—	—	—	—	—	—	—
Quad	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0
	2.5	2.0	2.5	2.0	3.0	2.5	3.0	2.0	4.0	2.5	3.0	3.0
	2.5	2.0	2.0	2.0	3.0	2.5	2.5	2.5	4.0	2.5	3.0	2.5
	2.5	(1.8)*	2.5	(1.8)*	3.0	2.0	3.0	2.0	3.0	3.0	3.0	2.5
	2.5	(1.8)*	(2.3)*	(1.8)*	3.0	2.0	2.5	2.5	3.0	2.5	3.0	2.5
	2.5	(1.8)*	2.0	2.0	3.0	(2.3)*	3.0	(2.3)*	4.0	(2.3)*	4.0	(2.3)*
	(2.3)*	(1.8)*	(2.3)*	(1.8)*	3.0	(2.3)*	3.0	2.0	4.0	(2.3)*	3.0	3.0
	(2.3)*	(1.8)*	2.0	2.0	3.0	(2.3)*	2.5	2.5	4.0	(2.3)*	3.0	2.5

Notes: In case of the combination with \*marked indoor units, apply 2.0HP and 2.5HP indoor units instead of 1.8HP and 2.3HP indoor units because 1.8HP and 2.3HP units are not commercialized. In such a case, the cooling and heating capacity may be excessive and the dip switches on PCB are required to readjust. Refer to "Technical Catalog" for details on Dip Switch Setting.

# General Data

## Specifications

Model		RAS-8HRNM	RAS-10HRNM	RAS-12HRNM
Power Supply		380-415V/50Hz, 220V/60Hz, 380V/60Hz (*1)		
Nominal Cooling Capacity (min. /nom. /max.)	kW	9.0 / 20.0 / 22.4	11.2 / 25.0 / 28.0	13.5 / 30.0 / 33.5
Nominal Heating Capacity (min. /nom. /max.)	kW	8.3 / 22.4 / 28.0	10.5 / 28.0 / 35.0	12.6 / 33.5 / 37.5
Design Pressure				
High Pressure	MPa	4.15		
Low Pressure	MPa	2.21		
Cabinet Color		Natural Gray (1.0Y8.5/0.5)		
Propeller Fan		$\phi$ 544 x 2 Super High-stream Fan 3Rotor Blades (Blade Length 204)		
Sound Pressure Level (Overall A Scale)(C/H)	dB	52 / 54	55 / 57	58 / 60
Dimensions				
Width	mm	1,100		
Depth	mm	390		
Height	mm	1,650		
Weight				
380-415V/50Hz, 380V/60Hz	kg	170	170	173
220V/60Hz	kg	168	168	171
Energy Efficiency Ratio (*2)				
Cooling	kW/kW	3.36	3.20	3.10
Heating	kW/kW	4.24	3.93	3.83
Average	kW/kW	3.80	3.57	3.47
Compressor				
Type		DC Inverter Driven Compressor		
Model		E655DHD-65A2, D2		
Refrigeration Oil		FVC68D (Daphne Hermetic Oil)		
Refrigerant		R410A (30m Chargeless)		
Initial Charge	kg	7.3	7.8	8.5
Outdoor Unit Fan				
Air Flow Rate	m <sup>3</sup> /min.	121.0	150.0	163.0
Motor Output	kW	0.17 x 1 + 0.12 x 1	0.17 x 1 + 0.17 x 1	0.17 x 1 + 0.20 x 1
Pipe Length	m	Maximum 100		
Pipe Diameter				
Gas	mm	25.4		
Liquid	mm	9.53 (*3)	12.7	12.7
Height Difference Between indoor and outdoor units	m	30m (20m: if the outdoor unit is installed lower than indoor units.)		
Height Difference among Indoor Units	m	3		
Pipe Length between Branch Kit and Indoor Units	m	15		

Notes:

\*1: Product specifications may vary depending on the power source. For details, contact your nearest HITACHI dealer.

\*2: The performance indicates when the indoor and outdoor units are combined with the 4-way cassette type.

\*3: When the piping length is over 70m, liquid pipe diameter should be  $\phi$ 12.7.

## Standard Operating Conditions

### Operating Range

		Cooling		Heating	
		Continuous	Short-time	Continuous	Short-time
Indoor Air Inlet Temperature	DB (°C)	21.5~30.0	21.0~32.0	17.0~25.0	15.0~27.0
	WB (°C)	16.0~20.5	15.0~23.0	—	—
Outdoor Air Inlet Temperature	DB (°C)	-5.0~43.0		—	
	WB (°C)	—		-20.0~15.0	

### Standard Condition

		Cooling	Heating
Indoor Air Inlet Temperature	DB (°C)	27	20
	WB (°C)	19.0	—
Outdoor Air Inlet Temperature	DB (°C)	35	7
	WB (°C)	—	6

## Capacity Combination

	Combination	Indoor Unit Combination (HP)					Maximum Capacity (kW)										
						Total	Cooling				Total	Heating				Total	
<b>RAS-8HRNM</b> Nominal Capacity Cooling: 20.0kW Heating: 22.4kW	<b>Twin</b>	4.0	4.0	-	-	8.0	11.2	11.2	-	-	22.4	14.0	14.0	-	-	28.0	
		5.0	3.0	-	-	8.0	14.0	8.4	-	-	22.4	17.5	10.5	-	-	28.0	
	<b>Triple</b>	3.0	3.0	3.0	-	9.0	7.5	7.5	7.5	-	22.4	9.3	9.3	9.3	-	28.0	
		3.0	3.0	2.5	-	8.5	7.9	7.9	6.6	-	22.4	9.9	9.9	8.2	-	28.0	
		3.0	2.5	2.5	-	8.0	8.4	7.0	7.0	-	22.4	10.5	8.8	8.8	-	28.0	
		3.0	3.0	(2.3)*	-	8.3	8.1	8.1	6.2	-	22.4	10.1	10.1	7.8	-	28.0	
	<b>Quad</b>	2.0	2.0	2.0	2.0	8.0	5.6	5.6	5.6	5.6	22.4	7.0	7.0	7.0	7.0	28.0	
		2.5	2.0	2.5	2.0	9.0	6.2	5.0	6.2	5.0	22.4	7.8	6.2	7.8	6.2	28.0	
		2.5	2.0	2.0	2.0	8.5	6.6	5.3	5.3	5.3	22.4	8.2	6.6	6.6	6.6	28.0	
		2.5	(1.8)*	2.5	(1.8)*	8.6	6.5	4.7	6.5	4.7	22.4	8.1	5.9	8.1	5.9	28.0	
		2.5	(1.8)*	(2.3)*	(1.8)*	8.4	6.7	4.8	6.1	4.8	22.4	8.3	6.0	7.7	6.0	28.0	
		2.5	(1.8)*	2.0	2.0	8.3	6.8	4.9	5.4	5.4	22.4	8.4	6.1	6.8	6.8	28.0	
		(2.3)*	(1.8)*	(2.3)*	(1.8)*	8.2	6.3	4.9	6.3	4.9	22.4	7.9	6.2	7.9	6.2	28.0	
		(2.3)*	(1.8)*	2.0	2.0	8.1	6.4	5.0	5.5	5.5	22.4	8.0	6.2	6.9	6.9	28.0	
	<b>RAS-10HRNM</b> Nominal Capacity Cooling: 25.0kW Heating: 28.0kW	<b>Twin</b>	5.0	5.0	-	-	10.0	14.0	14.0	-	-	28.0	17.5	17.5	-	-	35.0
		<b>Triple</b>	3.0	3.0	3.0	-	9.0	8.4	8.4	8.4	-	25.2	10.5	10.5	10.5	-	31.5
4.0			3.0	3.0	-	10.0	11.2	8.4	8.4	-	28.0	14.0	10.5	10.5	-	35.0	
<b>Quad</b>		2.5	2.5	2.5	2.5	10.0	7.0	7.0	7.0	7.0	28.0	8.8	8.8	8.8	8.8	35.0	
		3.0	2.5	3.0	2.0	10.5	8.0	6.7	8.0	5.3	28.0	10.0	8.3	10.0	6.7	35.0	
		3.0	2.5	2.5	2.5	10.5	8.0	6.7	6.7	6.7	28.0	10.0	8.3	8.3	8.3	35.0	
		3.0	2.0	3.0	2.0	10.0	8.4	5.6	8.4	5.6	28.0	10.5	7.0	10.5	7.0	35.0	
		3.0	2.0	2.5	2.5	10.0	8.4	5.6	7.0	7.0	28.0	10.5	7.0	8.8	8.8	35.0	
		3.0	(2.3)*	3.0	(2.3)*	10.6	7.9	6.1	7.9	6.1	28.0	9.9	7.6	9.9	7.6	35.0	
		3.0	(2.3)*	3.0	2.0	10.3	8.2	6.3	8.2	5.4	28.0	10.2	7.8	10.2	6.8	35.0	
	3.0	(2.3)*	2.5	2.5	10.3	8.2	6.3	6.8	6.8	28.0	10.2	7.8	8.5	8.5	35.0		
<b>RAS-12HRNM</b> Nominal Capacity Cooling: 30.0kW Heating: 33.5kW	<b>Triple</b>	4.0	4.0	4.0	-	12.0	11.2	11.2	11.2	-	33.5	12.5	12.5	12.5	-	37.5	
	<b>Quad</b>	3.0	3.0	3.0	3.0	12.0	8.4	8.4	8.4	8.4	33.5	9.4	9.4	9.4	9.4	37.5	
		4.0	2.5	3.0	3.0	12.5	10.7	6.7	8.0	8.0	33.5	12.0	7.5	9.0	9.0	37.5	
		4.0	2.5	3.0	2.5	12.0	11.2	7.0	8.4	7.0	33.5	12.5	7.8	9.4	7.8	37.5	
		3.0	3.0	3.0	2.5	11.5	8.4	8.4	8.4	7.0	32.1	9.4	9.4	9.4	7.8	36.0	
		3.0	2.5	3.0	2.5	11.0	8.4	7.0	8.4	7.0	30.7	9.4	7.8	9.4	7.8	34.4	
		4.0	(2.3)*	4.0	(2.3)*	12.6	10.6	6.1	10.6	6.1	33.5	11.9	6.9	11.9	6.9	37.5	
		4.0	(2.3)*	3.0	3.0	12.3	10.9	6.3	8.2	8.2	33.5	12.2	7.0	9.2	9.2	37.5	
		4.0	(2.3)*	3.0	2.5	11.8	11.2	6.4	8.4	7.0	33.0	12.5	7.2	9.4	7.8	36.9	

Notes: In case of the combination with \*marked indoor units, apply 2.0HP and 2.5HP indoor units instead of 1.8HP and 2.3HP indoor units because 1.8HP and 2.3HP units are not commercialized. In such a case, the cooling and heating capacity may be excessive and the dip switches on PCB are required to readjust. Refer to "Technical Catalog" for details on Dip Switch Setting.

## Optional Functions

Function	DSW	PSW	Feature
	Dip Switch	Push Switch	
Demand Control	●	●	Function to control the operating current in the three stages of 50%, 75% and 100%
Wave Demand Control	●	●	Function to control the upper limit of the operating current in the range of 50 - 100% at intervals of 10 min. - 20 min. - 10 min.
Indoor Temp. Control for Energy Saving	●	●	Energy-saving operation function
Cancellation of Fan Stop Defrosting	●	●	Function to make the indoor unit fan start the breeze operation even during defrosting
Low-Noise Operation	●	●	Function to start low-noise operation by setting the compressor operating frequency to "low level" regardless of the outdoor air temperature
Night Shift Mode Operation	●	●	Function to start low-noise operation by setting the compressor operating frequency to "low level" and operating the outdoor fan in "weak rotation" when the outdoor air temperature at night is 30°C or less

\*: For detailed data on each function and feature, see the technical catalogue.

\*: Refer to the installation/operation manual attached with the unit for details. 100%, 75% and 50% operation of the current is available by setting demand control.

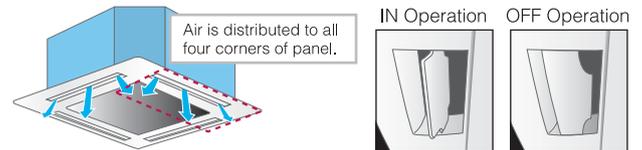


## 4-Way Cassette Type RCI-FSN2



### Newly Developed "Wide Air Flow Wing"

"Wide Air Flow Wing" is installed turning to the both sides of the air outlet to allow the air distribution in every four corners of the panel. Consequently, the sophisticated and outstandingly comfortable air-conditioned environment without temperature irregularity is provided. The Shutter function is newly adopted to conceal the air outlet with the louvers when the operation is stopped. The louvers cover the air outlet horizontally with providing the neat appearance.



### Industry-leading Low Sound Pressure Level

Highly-advanced low sound pressure level, 30 dB(A) (2.0HP: at HIGH speed operation) is realized by adopting the new DC fan motor and the vibration-proof structure which protects the turbo fan from abnormal sound. The low sound pressure level is 2 dB lower than the conventional units and further quiet operation is achieved.

### Simplified Panel Wiring

The panel wiring connector is shifted to the air inlet grille inside. No need to open the electrical box cover for panel wiring work.

## Specifications

Model		RCI-2.0FSN2	RCI-2.5FSN2	RCI-3.0FSN2	RCI-4.0FSN2	RCI-5.0FSN2
Indoor Unit Power Supply		AC 1 φ , 220-240V / 50Hz, 220V / 60Hz				
Sound Pressure Level (Overall A Scale)	dB	30-28-27	32-30-28	32-30-28	38-35-33	39-37-35
Dimensions	H	mm	248	248	298	298
	W	mm	840	840	840	840
	D	mm	840	840	840	840
Net Weight	kg	24	24	26	29	29
Refrigerant		R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance)				
Air Flow Rate	m <sup>3</sup> /min.	16/14/12	20/17/15	21/18/15	32/28/24	34/29/25
Hi/Me/Lo	(cfm)	(565/494/424)	(706/600/530)	(741/635/530)	(1,130/989/847)	(1,201/1,024/883)
Motor	W	56	56	56	124	124
Connections		Flare-Nut Connection (With Flare Nuts)				
Liquid / Gas	mm	φ 6.35 / φ 15.88	φ 9.53 / φ 15.88	φ 9.53 / φ 15.88	φ 9.53 / φ 15.88 <sup>*1</sup>	φ 9.53 / φ 15.88 <sup>*1</sup>
Condensate Drain		VP25				
Approximate Packing Measurement	m <sup>3</sup>	0.22	0.22	0.26	0.26	0.26
Adaptable Panel Model		P-N23WA				
Color		Silky White				
Dimensions	H	mm	37	37	37	37
	W	mm	950	950	950	950
	D	mm	950	950	950	950
Net Weight	kg	6	6	6	6	6
Approximate Packing Measurement	m <sup>3</sup>	0.09	0.09	0.09	0.09	0.09

NOTES: 1. The sound pressure level is based on following conditions.

1.5 Meters Beneath the Unit. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

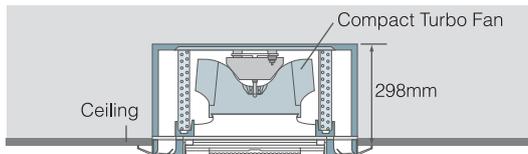
2. <sup>\*1</sup>) In case of using R407C or R22, use the accessory adaptor and φ 19.05 piping.



## 4-Way Cassette Type RCD-FSN2

### Low-profile design allows installation in a small space inside of ceiling

A compact turbo fan simplifies the structure and reduces the height to 298 mm, for easy installation.



### Top-class noise control thanks to compact turbo fan

The three-dimensional twisted wings of the compact turbo fan greatly reduce noise, and electromagnetic disturbance is minimized by PWM (Pulse Width Modulation) control.

### Speed-up tap ensures comfortable air conditioning even when installed as in the high ceiling

Even rooms with a high ceiling can be comfortably air-conditioned by setting the speed-up tap with the remote control switch.



### Downsizing and weight reduction simplify handling for easier renewal

The length of the 3.0HP type is shortened from 1,320 mm to 860 mm, the height is also shortened, and the volume is reduced by about 50%. The reduced weight of 30 kg also makes handling much easier.

## Specifications

Model		RCD-2.0FSN2	RCD-2.5FSN2	RCD-3.0FSN2	RCD-4.0FSN2	RCD-5.0FSN2
<b>Indoor Unit Power Supply</b>		AC 1 φ , 220-240V / 50Hz, 220V / 60Hz				
<b>Sound Pressure Level (Overall A Scale)</b>	dB	35-32-30	38-34-31	38-34-31	40-36-33	43-40-36
<b>Dimensions</b>	<b>H</b>	mm	298	298	298	298
	<b>W</b>	mm	860	860	860	1,420
	<b>D</b>	mm	620	620	620	620
<b>Net Weight</b>	kg	27	30	30	48	48
<b>Refrigerant</b>		R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance)				
<b>Air Flow Rate</b>	m <sup>3</sup> /min.	15/13/11	19/16/14	19/16/14	29/24/21	34/29/25
<b>Hi/Me/Lo</b>	(cfm)	(530/459/388)	(671/565/494)	(671/565/494)	(1,024/847/742)	(1,201/1,024/883)
<b>Motor</b>	W	35	55	55	35 x 2	55 x 2
<b>Connections</b>		Flare-Nut Connection (With Flare Nuts)				
<b>Liquid / Gas</b>	mm	φ 6.35 / φ 15.88	φ 9.53 / φ 15.88	φ 9.53 / φ 15.88	φ 9.53 / φ 15.88 <sup>*1)</sup>	φ 9.53 / φ 15.88 <sup>*1)</sup>
<b>Condensate Drain</b>		VP25				
<b>Approximate Packing Measurement</b>	m <sup>3</sup>	0.23	0.23	0.23	0.37	0.37
<b>Adaptable Panel Model</b>		P-N23DWA			P-N46DWA	
<b>Color</b>		Silky White				
<b>Dimensions</b>	<b>H</b>	mm	30	30	30	30
	<b>W</b>	mm	1,100	1,100	1,100	1,660
	<b>D</b>	mm	710	710	710	710
<b>Net Weight</b>	kg	6	6	6	8	8
<b>Approximate Packing Measurement</b>	m <sup>3</sup>	0.10	0.10	0.10	0.15	0.15

NOTES: 1. 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 chamber so that reflected sound should be taken into consideration in the field.

2. <sup>\*1)</sup> In case of using R407C or R22, use the accessory adaptor and φ 19.05 piping.

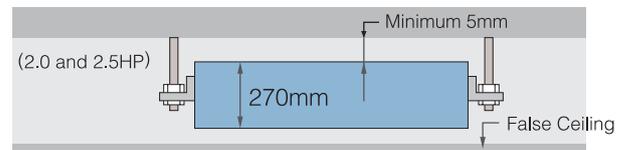


## In-the-Ceiling Type RPI-FSN2



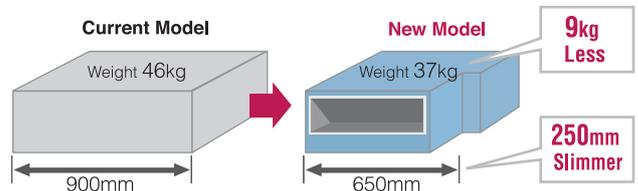
### Space-saving Design

Less than 270 mm in height, this unit can be fit into practically any previously existing false ceiling or formerly ducted space without substantial modification (2.0 and 2.5HP).



### 3.0HP model downsized

The width is 250mm Slimmer and the weight 9kg lighter than the current model, thus delivery and installation is easier.



### Broader range of external static pressure. Flexibly supports a wide range of installation conditions at site, e.g. longer ducts

In addition to the standard Hi-Me-Lo, the speed-up tap can be set by remote control. Available for external static pressure of up to 80 Pa for 2.0, 2.5 HP and 170 Pa for 3-5 HP.

## Specifications

Model		RPI-2.0FSN2	RPI-2.5FSN2	RPI-3.0FSN2	RPI-4.0FSN2	RPI-5.0FSN2
<b>Indoor Unit Power Supply</b>		AC 1 $\phi$ , 220-240V / 50Hz, 220V / 60Hz				
<b>Sound Pressure Level (Overall A Scale)</b>	dB	35-33-31	36-34-32	42-39-35	43-40-36	44-41-37
<b>Dimensions</b>	<b>H</b>	mm	270	270	350	350
	<b>W</b>	mm	900+75	900+75	650+75	900+75
	<b>D</b>	mm	720	720	800	800
<b>Net Weight</b>	kg	35	35	37	46	58
<b>Refrigerant</b>		R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance)				
<b>Air Flow Rate</b>	m <sup>3</sup> /min.	15/13/11	16/14/12	19/17/14	27/23/19	37/31/25
<b>Hi/Me/Lo</b>	(cfm)	(530/459/388)	(565/494/424)	(671/600/494)	(954/812/671)	(1,306/1,095/883)
<b>External Pressure</b>	Pa	50 (80-30)	50 (80-30)	120 (170-60)	120 (170-60)	120 (170-60)
<b>Motor</b>	W	75	75	150	290	290
<b>Connections</b>		Flare-Nut Connection (With Flare Nuts)				
	<b>Liquid</b>	mm	$\phi$ 6.35	$\phi$ 9.53	$\phi$ 9.53	$\phi$ 9.53
	<b>Gas</b>	W	$\phi$ 15.88	$\phi$ 15.88	$\phi$ 15.88	$\phi$ 15.88*1)
<b>Condensate Drain</b>		VP25				
<b>Approximate Packing Measurement</b>	m <sup>3</sup>	0.27	0.27	0.29	0.38	0.52

NOTES: 1. The sound pressure level is based on following conditions. 1.5 Meter Beneath the Unit. With Discharge Duct (2.0m) and Return Duct (1.0m).

2. 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 1 or 2dB.

The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

3. The data for external pressure indicates "Standard Pressure Setting ( High Pressure Setting - Low Pressure Setting )" values when a filter is not used.

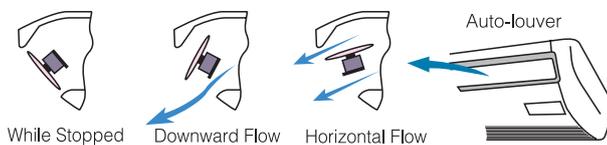
3. \*1) In case of using R407C or R22, use the accessory adaptor and  $\phi$  19.05 piping.

## Ceiling Type RPC-FSN2



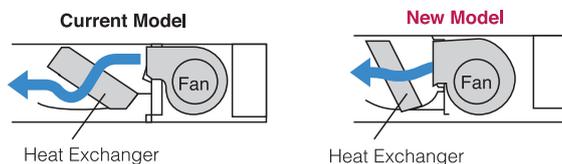
### Amenity improved by auto-louver at air opening

The round, lower part of the air opening complements the gentle, quiet operation. The auto-louver in the upper part of the opening automatically controls upward and downward motion of air flow, while the grille serves as a shutter when stopped.



### Noise and vibration drastically reduced by our original design

The large fan and improved resistance of the air-flow path lower the r.p.m. of the blower, thus reducing noise and vibration.



### Simple Installation and Maintenance

- Installation time is much shorter. \*By 30% (Hitachi's comparison)
- A long-life filter (mildew-proof) is fitted as standard. No maintenance is required for about 2,500 hours of operation. \*For ordinary offices

### Each part of the system is fully functional

The wireless light receiver kit (option) can be installed easily through the hole in the lower cover.

## Specifications

Model		RPC-2.0FSN2	RPC-2.5FSN2	RPC-3.0FSN2	RPC-4.0FSN2	RPC-5.0FSN2
<b>Indoor Unit Power Supply</b>		AC 1 φ , 220-240V / 50Hz, 220V / 60Hz				
<b>Sound Pressure Level (Overall A Scale)</b>	dB	40-37-34	40-37-34	40-37-34	44-41-38	44-41-38
<b>Cabinet Color</b>		Silky White				
<b>Dimensions</b>	H	mm	210	210	210	270
	W	mm	1,100	1,320	1,320	1,320
	D	mm	670	670	670	670
<b>Net Weight</b>	kg	26	30	30	34	42
<b>Refrigerant</b>		R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance)				
<b>Air Flow Rate</b>	m <sup>3</sup> /min.	14/12/10	18/15/12	18/15/12	25/21/18	33/28/23
<b>Hi/Me/Lo</b>	(cfm)	(494/424/353)	(636/530/424)	(636/530/424)	(883/742/636)	(1,165/989/812)
<b>Motor</b>	W	35	50	50	95	135
<b>Connections</b>		Flare-Nut Connection (With Flare Nuts)				
<b>Liquid / Gas</b>	mm	φ 6.35 / φ 15.88	φ 9.53 / φ 15.88	φ 9.53 / φ 15.88	φ 9.53 / φ 15.88*1)	φ 9.53 / φ 15.88*1)
<b>Condensate Drain</b>		VP20				
<b>Approximate Packing Measurement</b>	m <sup>3</sup>	0.30	0.36	0.36	0.43	0.50
<b>Standard Accessories</b>		Mounting Bracket				

NOTES: 1. The sound pressure level is based on following conditions. 1 Meter Beneath the Unit and 1 Meter from Discharge Grille.

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 chamber so that reflected sound should be taken into consideration in the field.

2. \*1) In case of using R407C or R22, use the accessory adaptor and φ 19.05 piping.



## Wall Type RPK-FSNSM2



### User Friendly

Easy switching from wireless to wired remote controller by Dip Switch built-in the receiver part. All alarm code is displayed when using wireless remote controller by combining the flashing times of "Timer", "Filter/Defrosting". (All models)

### Top-Class Compact and Light Weight Design

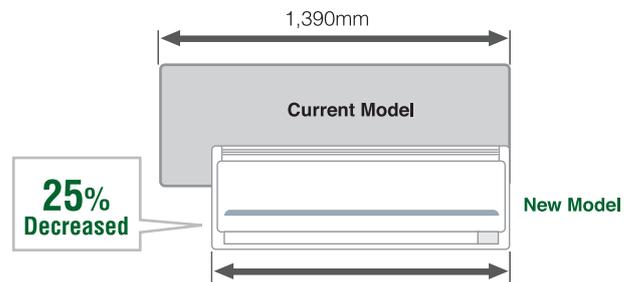
More Choice to select the installation place thanks to the reduction of wideness in 2.5, 3.0 and 4.0HP

### Stylish Design and Maintenance

Flat panel is adopted in a front part of all models.

This flat panel also contributes to an easy maintenance.

2.0, 2.5, 3.0 and 4.0HP have been included as new-line-up of flat panel.



## Specifications

Model		RPK-2.0FSNSM2	RPK-2.5FSNSM2	RPK-3.0FSNSM2	RPK-4.0FSNSM2	
<b>Indoor Unit Power Supply</b>		AC 1 φ , 220-240V / 50Hz, 220V / 60Hz				
<b>Sound Pressure Level (Overall A Scale)</b>	dB	41-39-37	43-40-37	43-40-37	49-46-43	
<b>Cabinet Color</b>		White				
<b>Dimensions</b>	<b>H</b>	mm	295	333	333	333
	<b>W</b>	mm	1,030	1,150	1,150	1,150
	<b>D</b>	mm	208	245	245	245
<b>Net Weight</b>	kg	12	18	18	18	
<b>Refrigerant</b>		R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance)				
<b>Air Flow Rate</b>	m <sup>3</sup> /min.	14/12/10	17/16/14	17/16/14	22/20/17	
<b>Hi/Me/Lo</b>	(cfm)	(494/424/353)	(600/565/494)	(600/565/494)	(777/706/600)	
<b>Motor</b>	W	30	30	30	30	
<b>Connections</b>		Flare-Nut Connection (With Flare Nuts)				
<b>Liquid / Gas</b>	mm	φ 6.35 / φ 15.88 or φ 12.7*1)	φ 9.53 / φ 15.88	φ 9.53 / φ 15.88	φ 9.53 / φ 15.88	
<b>Condensate Drain</b>		VP16				
<b>Approximate Packing Measurement</b>	m <sup>3</sup>	0.11	0.13	0.13	0.13	
<b>Standard Accessories</b>		Wall Mounting Bracket				

NOTES: 1. The sound pressure level is based on the following conditions measured.

1 Meter Beneath the Unit and 1 Meter from Inlet Grille.

The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

2. \*1) The refrigerant piping size may be required to change depending on the outdoor unit to be connected.

If φ 12.7 pipe is used at the gas side, remove the flare adaptor at the indoor unit gas piping. Then attach the flare nut (accessory) for pipe connection.

## Total Heat Exchanger KPI



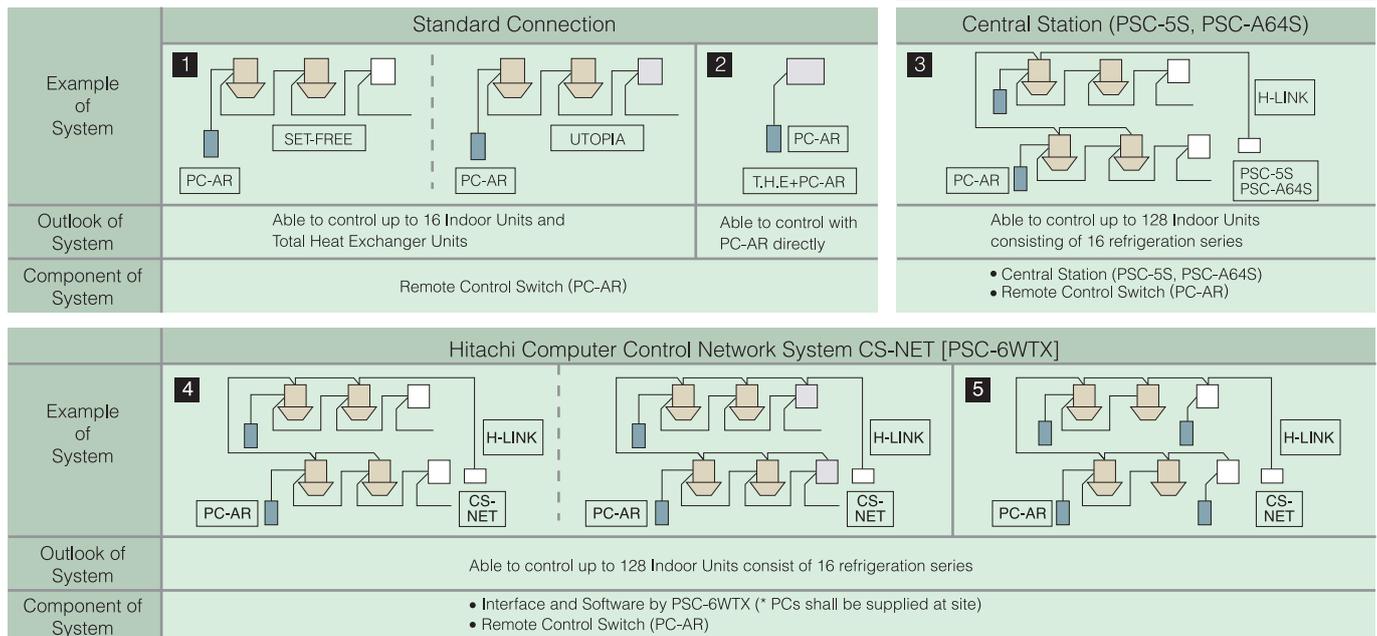
### Automatic Selection of Most Suitable Ventilation Mode

Depending on temperature conditions both outdoors and indoors, the most suitable ventilation mode is automatically selected, helping to save energy.

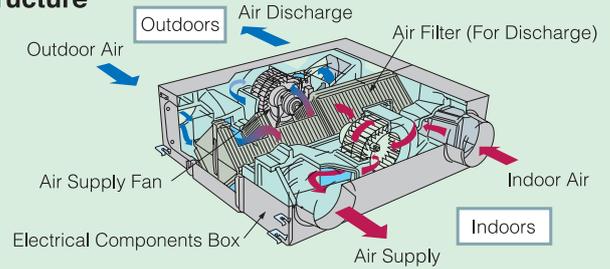
### Controllable Using the Remote Control Switch for The Air Conditioning Unit

Can be controlled in various ways using the remote control switch for the air conditioning unit (PC-AR).

### Various Control Examples



### Structure



### Fixed Type Heat Exchanging Element

- The newly-developed fixed type heat exchanging element with high temperature exchange efficiency equivalent to the rotor type element, has been adopted for the new total heat exchangers (Temp. Exchange Efficiency: 77% [in case of 500m<sup>3</sup>/h type unit]). Additionally, reliability is increased due to reduction of moving parts.
- Low weight with Simple Unit Structure: 33kg (in case of 500m<sup>3</sup>/h type unit)

## Specifications

Model		KPI-2521	KPI-5021	KPI-8021	KPI-10021
Indoor Unit Power Supply		AC 1 φ , 220-240V / 50Hz, 220V / 60Hz			
Air Flow Rate	50Hz m <sup>3</sup> /h	250/250/165	500/500/350	800/800/670	1,000/1,000/870
Hi/Me/Lo	60Hz m <sup>3</sup> /h	250/250/150	500/500/300	800/800/660	1,000/1,000/720
External Pressure <sup>*1)</sup>	50Hz Pa	65/40/20	150/60/30	140/100/70	160/100/80
Hi/Me/Lo	60Hz Pa	100/50/20	200/60/20	230/120/80	200/110/60
Sound Pressure Level (Overall A Scale) at 1.5m from the unit <sup>*2) *3)</sup>	50Hz dB	26.5-27.5/25-26/21-22	32.5-33.5/30-31/23.5-24.5	33.5-34.5/32-33/30-31	36-37/34-35/31.5-32.5
Hi/Me/Lo	60Hz dB	28.5/25.5/21	32.5/28.5/23	35/31/29	36/34/30
Dimensions H x W x D	mm	275 x 735 x 780	317 x 1,016 x 888	398 x 1,004 x 1,164	398 x 1,231 x 1,164
Net Weight		21	33	61	72
Approximate Packing Measurement	m <sup>3</sup>	0.26	0.46	0.70	0.84

NOTES: \*1. Use it under the following conditions. KPI-8021: 29Pa or more, KPI-10021: 49Pa or more

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

1.5 Meter beneath the unit and this data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

\*3. The sound pressure level is based on the total heat exchange mode. In case of the bypass ventilation mode, the sound pressure level is increased by approximately 1dB(A).

# Network Systems H-LINK

Hitachi's proprietary high-performance transmission system for connecting control wires between indoor and outdoor units, and between a centralized control system and indoor/outdoor units, across two or more refrigerant systems.

## Flexible Wiring Routes

Absolutely no restrictions on the order of wiring, the wiring route and the number of branches. Simply connect to the adjacent units or the terminal block of a centralized control system.

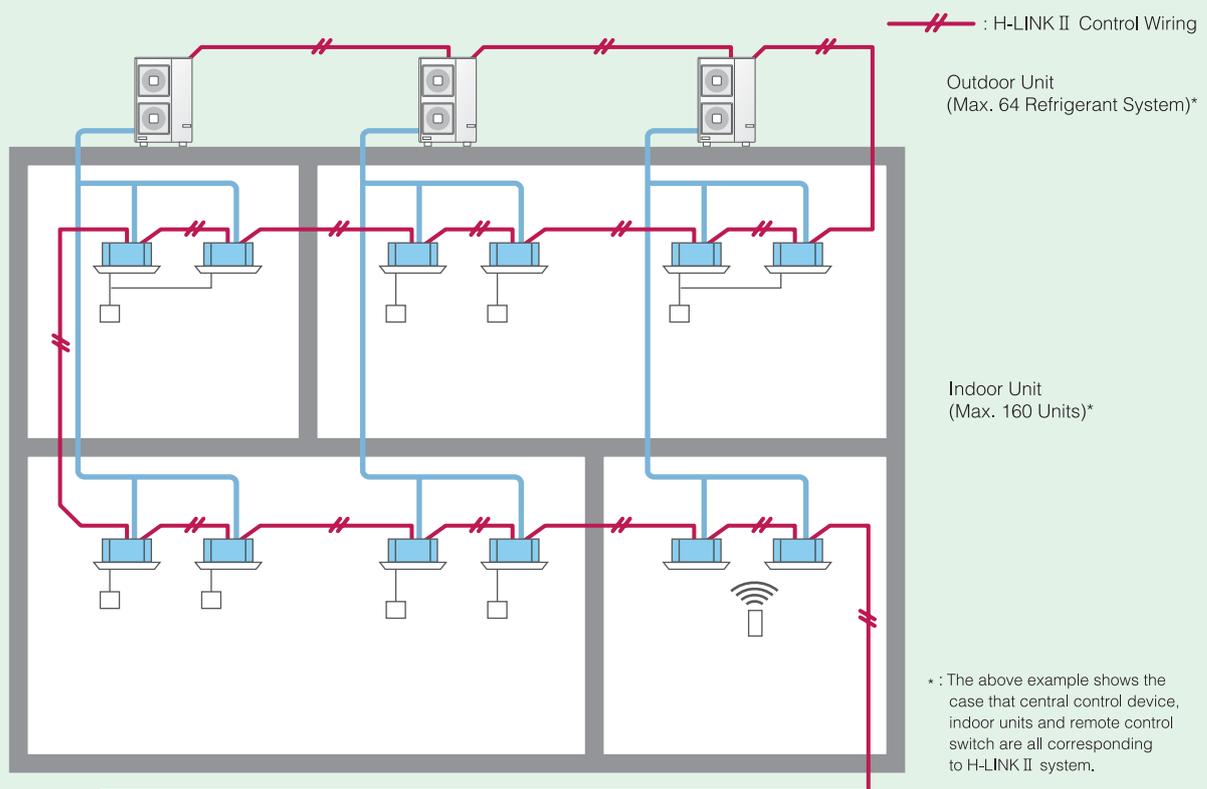
## Regardless of Multi-Split System for Buildings or Packaged System for Commercial Use

By providing a common control function and wiring method, a multi-split air conditioning system for buildings and a packaged air conditioning system for commercial use are simultaneously used in the same system, and so are the EHP and GHP air conditioning systems. Just connect all the systems with twin core cables by crossover connection. Adapters or other appliances are not required.

## H-LINK II

The H-LINK transmission system for connection between outdoor and indoor units provides an extended system configuration and improved functions without sacrificing workability and the flexibility.

### Example



CS-NET			PSC-6WTX	BMS
<b>Central Station</b> PSC-5S PSC-A64S	<b>Centralized ON/OFF Controller</b> PSC-A16RS	<b>7 Day Timer</b> PSC-A1T	HARC 40	HARC70-P1 HC-A64BNP

## Compare with H-LINK System

Item	H-LINK	H-LINK II
Max. Number of Refrigerant Group / System	16	64
Address Setting Range of Indoor Units / Refrigerant Group	0 to 15	0 to 63
Max. Number of Indoor Unit / System	128	160
Total Number of Devices in the same H-LINK	145	200
Max. Wiring Length	Total 1,000m (5,000m)*	

\* : In case 4 units of PSC-5HR are used.

## Mixture of H-LINK and H-LINK II

H-LINK II corresponding models can be mixed with H-LINK corresponding models in the same system without any adaptor.

Control System Device	Outdoor Unit Indoor Unit	1 H-LINK ( II ) System	
		Outdoor Units (Number of Ref. Groups)	Indoor Units
H-LINK II	H-LINK II	64	160
	H-LINK II / H-LINK Mixed	64*	128
H-LINK	H-LINK II	16	128
	H-LINK II / H-LINK Mixed	16	128

\* : A maximum 16 refrigerant groups can be connected in 1 H-LINK system under the following conditions.

- Outdoor unit corresponding to H-LINK
- Outdoor unit corresponding to H-LINK II connected with the indoor unit corresponding to H-LINK

More than 17 indoor units are available to connect with the 1 outdoor unit depending on the outdoor unit capacity. In that case, 2 ref. groups are required for 1 outdoor unit

## System Configuration

	SET-FREE FSN(1) Series H-LINK			UTOPIA IVX Series H-LINK II		
Outdoor Unit						
Indoor Unit	H-LINK II or H-LINK			H-LINK II or H-LINK		
Remote Control Switch	H-LINK H-LINK II H-LINK II			H-LINK H-LINK II H-LINK II		
Setting Range of Refrigerant Group* <sup>1)</sup>		0 to 15			0 to 15	
Setting Range of Address* <sup>1)</sup>	0 to 15	0 to 15	0 to 15	0 to 15	0 to 15	0 to 63
Automatic Reset of Setting Temperature* <sup>2)</sup>	×	●	●	×	●	●
Operation Lock* <sup>2)</sup>	×	●	●	×	●	●
Limitation of Setting Temperature Range* <sup>3)</sup>	×	●	●	×	●	●
ON / OFF Timer Setting (72Hr.)* <sup>2)</sup>	×	●	●	×	●	●
Different Operation Mode Indication* <sup>3)</sup>	×	×	●	×	×	●
Indoor Unit Hot-Start Indication* <sup>3)</sup>	×	×	●	×	×	●
Change of Indoor Unit Ref. Group No. and Address* <sup>2)</sup>	×	×	●	×	×	●
Outdoor Unit Comp. Pre-heating Indication / Cancel* <sup>2)</sup>	×	×	×	×	×	●
Emergency Operation from Remote Control Switch* <sup>4)</sup>	×	×	×	×	×	●

\*1): The range of ref. group setting and address setting is 0 to 15 when H-LINK corresponding central controller is used.

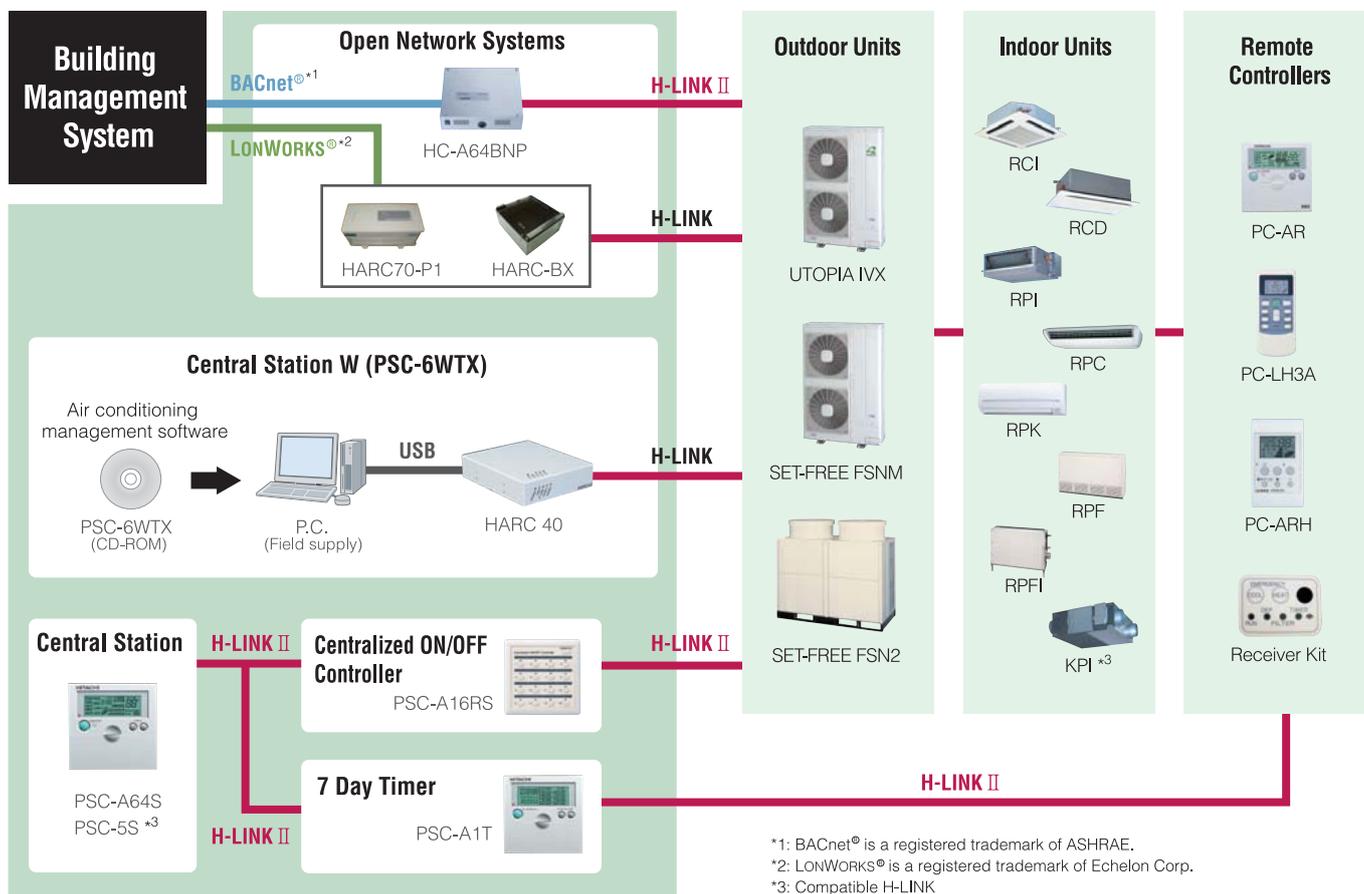
\*2): These functions can be set by wired remote control switch (PC-AR) only.

\*3): These functions can be set by wired remote control switch (PC-AR) and half size remote control switch (PC-ARH) only.

\*4): This function is not available depending on the outdoor unit type.

# Network Systems CS-NET

CS-NET is Hitachi's computer control network system for the SET-FREE FS series, SET-FREE FSNM and UTOPIA IVX ranges. The flexibility of the SET-FREE system allows the internal data to be easily accessed and controlled by the user, with features including temperature, mode and fan speed setting and groupings.



## Interface (Option)

You can select the air conditioner control interface depending on your needs to create a comfortable space.

### HARC 40 (for Central Station W)



By using an HARC 40 adapter connectable to a personal computer by USB, the air conditioners can be centrally controlled.

<b>Connection Method to Upper System</b>	• Connection by USB (Universal Serial Bus) to PC		
<b>Quantity of Connection</b>	• 128 Indoor Units		
<b>Control Item at Upper System</b>	<ul style="list-style-type: none"> <li>• On / Off Control</li> <li>• Operation Mode Setting</li> <li>• Temperature Setting [Cooling : 19°C ~ 30°C Heating : 17°C ~ 30°C]</li> </ul>	<ul style="list-style-type: none"> <li>• Air Direction Setting</li> <li>• Remote Control Fully Allowed/Prohibited</li> <li>• Remote Control Partially Allowed/Prohibited</li> </ul>	<ul style="list-style-type: none"> <li>• Fan Speed Setting</li> <li>• Filter Sign Resetting</li> <li>• Air Direction Setting (Cannot be set by wireless remote control)</li> </ul>
<b>Monitoring Item at Upper System</b>	<ul style="list-style-type: none"> <li>• On / Off</li> <li>• Operation Mode</li> <li>• Set Fan Speed</li> <li>• Set Air Direction</li> </ul>	<ul style="list-style-type: none"> <li>• Set Temperature</li> <li>• Remote Control Prohibition Setting</li> <li>• Filter Sign</li> </ul>	<ul style="list-style-type: none"> <li>• Alarm</li> <li>• Alarm Code</li> <li>• Air Inlet Temperature</li> </ul>

## HC-A64BNP (for BACnet®)



Connecting the HC-A64BNP to an H-LINK (communication line between machines) allows the use of up to 8 refrigerant cycles and control of up to 64 indoor units. Up to eight HC-A64BNP can be connected to the same H-LINK.

<b>Connection Method to Upper System</b>	• Connection by IEEE802.3 Compliance (100BASE-TX/10BASE-T) to BACnet® Network
<b>Quantity of Connection</b>	• Up to 64 Indoor Units per BACnet® Adaptor
<b>Control Item at Upper System</b>	<ul style="list-style-type: none"> <li>• RUN/STOP</li> <li>• Operation Mode Setting</li> <li>• Temperature Setting</li> <li>• Fan Speed Setting</li> </ul> <ul style="list-style-type: none"> <li>• Available / Not Available for Operation by Remote control Switch</li> <li>• Filter Sign Reset</li> </ul>
<b>Monitoring Item at Upper System</b>	<ul style="list-style-type: none"> <li>• RUN/STOP State Notification</li> <li>• Alarm Signal Notification</li> <li>• Operation Mode State Notification</li> <li>• Fan Speed State Notification</li> </ul> <ul style="list-style-type: none"> <li>• Indoor Suction Temperature Notification</li> <li>• Alarm Code Notification</li> <li>• Communication Abnormality Notification</li> <li>• Filter Sign</li> </ul>

## HARC70-P1 (for LONWORKS®)



By using the HARC70-P1 adapter for LONWORKS® to connect air conditioners to the total building control system, air conditioners can be centrally controlled.

<b>Connection Method to Upper System</b>	• Connection by SNVT (Standard Network Variable Type) to LONWORKS® Network
<b>Quantity of Connection</b>	• 8 Remote Control Groups (Max. 120 indoor Units)
<b>Control Item at Upper System</b>	<ul style="list-style-type: none"> <li>• On/Off Order</li> <li>• Operation Mode Setting</li> </ul> <ul style="list-style-type: none"> <li>• Temperature Setting</li> <li>• All On/Off Order</li> </ul>
<b>Monitoring Item at Upper System</b>	<ul style="list-style-type: none"> <li>• On/Off State &amp; Alarm</li> <li>• Operation Mode State</li> </ul> <ul style="list-style-type: none"> <li>• Temperature Setting</li> <li>• Individual Thermostat State</li> </ul>

## HARC-BX (for LONWORKS®)



A HARC-BX can connect to multiple H-LINK with H-LINK transmission terminal to 8 PCB.

Points for control and monitor have been increased to meet more points.(Points for control and monitor is 8 times larger than HARC70P-1.)

You can select the number of controls, monitor, and what to control in the indoor unit from three choices (Standard, Option A and Option B) as needed.

### HARC-BX E (Standard)

<b>Connection Method to Upper System</b>	• Connection by SNVT (Standard Network Variable Type) to LONWORKS® Network
<b>Quantity of Connection</b>	• 64 Indoor Units
<b>Control Item at Upper System</b>	<ul style="list-style-type: none"> <li>• On/Off Order</li> <li>• Operation Mode Setting</li> </ul> <ul style="list-style-type: none"> <li>• Temperature Setting</li> <li>• All On/Off Order</li> </ul>
<b>Monitoring Item at Upper System</b>	<ul style="list-style-type: none"> <li>• On/Off State &amp; Alarm</li> <li>• Operation Mode State</li> </ul> <ul style="list-style-type: none"> <li>• Temperature Setting</li> <li>• Individual Thermostat State</li> </ul>

### HARC-BX E (Option A)

<b>Connection Method to Upper System</b>	• Connection by SNVT (Standard Network Variable Type) to LONWORKS® Network
<b>Quantity of Connection</b>	• 64 Indoor Units
<b>Control Item at Upper System</b>	<ul style="list-style-type: none"> <li>• On/Off Order</li> <li>• Operation Mode Setting</li> <li>• Temperature Setting</li> </ul> <ul style="list-style-type: none"> <li>• All On/Off Order</li> <li>• Fan Speed Setting</li> <li>• R.C.Sw Permission/Prohibition</li> </ul>
<b>Monitoring Item at Upper System</b>	<ul style="list-style-type: none"> <li>• On/Off State &amp; Alarm</li> <li>• Inlet Air Temperature</li> </ul>

### HARC-BX E (Option B)

<b>Connection Method to Upper System</b>	• Connection by SNVT (Standard Network Variable Type) to LONWORKS® Network
<b>Quantity of Connection</b>	• 32 Indoor Units
<b>Control Item at Upper System</b>	<ul style="list-style-type: none"> <li>• On/Off Order</li> <li>• Operation Mode Setting</li> <li>• Temperature Setting</li> </ul> <ul style="list-style-type: none"> <li>• Fan Speed Setting</li> <li>• R.C.Sw Permission /Prohibition</li> </ul> <ul style="list-style-type: none"> <li>• All On/Off Order</li> <li>• Louver Position Setting</li> </ul>
<b>Monitoring Item at Upper System</b>	<ul style="list-style-type: none"> <li>• On/Off State &amp; Alarm</li> <li>• Operation Mode State</li> <li>• Fan Speed Setting</li> </ul> <ul style="list-style-type: none"> <li>• Temperature Setting</li> <li>• Louver Position</li> <li>• Alarm Code</li> </ul> <ul style="list-style-type: none"> <li>• Inlet Air Temperature</li> <li>• Outlet Air Temperature</li> <li>• Outdoor Air Temperature</li> </ul>

# Remote Controllers

## Remote Control Switch PC-AR

Compatible with  
the **H-LINK II**

- The PC-AR has a design that matches the interior.

- The new large LCD display permits users to see the operating conditions and settings.
- The timer can be set at half-hour intervals up to 72 hours.
- All the functions can be selected by remote control switches.
- The PC-AR monitors the operating conditions in the system and an alarm is issued if a problem occurs.

- A "self-diagnosis function" checks for problems on printed boards in indoor and outdoor units.
- Equipped with energy-saving functions such as a preset temperature range limiting function for preventing excessive cooling/heating and a preset temperature automatic reset function, as well as an operation locking mechanism and the capability to prevent users from forgetting to turn off the system. (Function selection setting is required)



## Wireless Remote Control Switch PC-LH3A

Compatible with  
the **H-LINK II**

- One-touch handy operation, no wiring work required.
- Two or more units can be operated simultaneously by remote control.
- \* Receiver kit is required.



## Half-size Remote Control Switch PC-ARH

Compatible with  
the **H-LINK II**

- The main function of this easy-to-use remote control system is temperature setting.
- Operation modes can be switched over (when function selection setting is made).
- Suitable for facilities used by various people, such as hotels.

- "2 remote control" or "group control" (up to 16 max.) can be used.
- If a problem occurs, an alarm code immediately shows the details of the problem.



## 7 Day Timer PSC-A1T

Compatible with  
the **H-LINK II**

- By using with PSC-5S, PSC-A64S and PC-AR controllers, the air conditioners controlled by them can be operated according to a schedule.
- The timer can be set at 7-day intervals, and operation/stop can be set 3 times daily.
- Remote control can be prohibited in accordance with the OFF time (when used with PSC-5S, PSC-A64S and PC-AR).

- Two types of weekly schedule (A and B) can be set, and can easily be changed for summer and winter.
- Settings are all digitally displayed, allowing operations and settings to be checked easily.
- The power failure backup function prevents the timer from being stopped by a power failure lasting up to 2 weeks.



## Central Station PSC-A64S PSC-5S

Compatible with  
the **H-LINK II**

Up to **160**  
indoor units

Up to **128**  
indoor units

Up to **64** remote  
control groups

Up to **16** remote  
control groups

- By connecting to the H-LINK, up to 64 remote control groups and 160 indoor units can be controlled. Up to 8 units can be connected to the H-LINK.
- In addition to basic control, such as settings for operation/stop, the operation mode and temperature, the air quantity and auto louver can be set. If a problem occurs, an alarm code immediately shows the details of the problem.

- An external input terminal is provided as standard. External signals enable the following functions: central operation/stop, demand control, emergency stop, central operation output, and central alarm output.
- Can be used in combination with the One-touch Controller.



## Centralized ON/OFF Controller PSC-A16RS

Compatible with  
the **H-LINK II**

Up to **160**  
indoor units

Up to **16** remote  
control groups

- Only performs operation/stop control per remote control group.
- By connecting to the H-LINK, up to 16 remote control groups and 160 indoor units can be controlled. Up to 8 units can be connected to the H-LINK.

- An external input terminal is provided as standard. External signals enable the following functions: central operation/stop, emergency stop, central operation output, central alarm output.
- Can be used in combination with the Central Station.



\* Make sure to use it with a remote control switch. Indoor units cannot be used without a remote control switch.  
\* There are restrictions on remote group registration. Please contact our sales staff for more information.

# Optional Parts

## Control System

● : Applicable    ✕ : Not Applicable

		RCI-FSN2	RCD-FSN2	RPI-FSN2	RPC-FSN2	RPK-FSNSM2	KPI
Remote Control Switch	PC-AR* <sup>1</sup> (Without cable)	●	●	●	●	●	●
Wireless Remote Control Switch	PC-LH3A	●	●	●	●	●	✕
Half-size Remote Control Switch	PC-ARH* <sup>2</sup>	●	●	●	●	●	✕
7-Day Timer	PSC-A1T* <sup>3</sup>	●	●	●	●	●	✕
Central Station	PSC-5S, PSC-A64S* <sup>4</sup>	●	●	●	●	●	●
Centralized ON/OFF Controller	PSC-A16RS	●	●	●	●	●	●
Remote Control Cable	PRC-5K, 10K, 15K for PC-AR	●	●	●	●	●	●
3P Connector Cable	PCC-1A	●	●	●	●	●	●
Remote Sensor	THM-R2A	●	●	●	●	✕	✕
P/C Network System CS-NET	PSC-6WTX	●	●	●	●	●	✕

NOTES: \*1. As the PC-AR does not include a remote control cable, prepare one in the field, or use PRC-5K, 10K, or 15K.

\*2. Make sure that it is used with PC-AR or CS-NET.

\*3. Scheduled operation is possible by using in combination with Central Station, Remote Control Switch and Centralized ON/OFF Controller.

\*4. Supply 220V or 240V.

## Multi-kits

### Branch Pipe Connection

	Combination	Indoor Unit Combination (HP)				Branch Pipe Kit	
		1	2	3	4	First Branch	Second Branch 1 ↔ 2 / 3 ↔ 4
RAS-8HRNM	Twin	4.0	4.0	-	-	TW-102SN	-
		5.0	3.0	-	-		-
	Triple	3.0	3.0	3.0	-	TG-103SN	-
		3.0	3.0	2.5	-		-
		3.0	2.5	2.5	-		-
	Quad	3.0	3.0	(2.3)	-	TW-102SN	-
		2.0	2.0	2.0	2.0		TW-22SN / TW-22SN
		2.5	2.0	2.5	2.0		TW-52SN / TW-52SN
		2.5	2.0	2.0	2.0		TW-52SN / TW-22SN
		2.5	(1.8)	2.5	(1.8)		TW-52SN / TW-52SN
		2.5	(1.8)	(2.3)	(1.8)		TW-52SN / TW-52SN
		2.5	(1.8)	2.0	2.0		TW-52SN / TW-22SN
(2.3)		(1.8)	(2.3)	(1.8)	TW-52SN / TW-52SN		
(2.3)	(1.8)	2.0	2.0	TW-52SN / TW-22SN			
RAS-10HRNM	Twin	5.0	5.0	-	-	TW-102SN	-
	Triple	3.0	3.0	3.0	-	TG-103SN	-
		4.0	3.0	3.0	-		-
	Quad	2.5	2.5	2.5	2.5	TW-102SN	TW-52SN / TW-52SN
		3.0	2.5	3.0	2.0		
		3.0	2.5	2.5	2.5		
		3.0	2.0	3.0	2.0		
		3.0	2.0	2.5	2.5		
		3.0	(2.3)	3.0	(2.3)		
		3.0	(2.3)	3.0	2.0		
3.0		(2.3)	2.5	2.5			
RAS-12HRNM	Triple	4.0	4.0	4.0	-	TG-103SN	-
	Quad	3.0	3.0	3.0	3.0	TW-102SN	TW-52SN / TW-52SN
		4.0	2.5	3.0	3.0		
		4.0	2.5	3.0	2.5		
		3.0	3.0	3.0	2.5		
		3.0	2.5	3.0	2.5		
		4.0	(2.3)	4.0	(2.3)		
		4.0	(2.3)	3.0	3.0		
4.0		(2.3)	3.0	2.5			

### Line Branch Pipe Connection

	First* / Second Branch	Third Branch
RAS-8HRNM RAS-10HRNM RAS-12HRNM	MW-162AN	MW-102AN

\*. In case of twin type, use MW-102AN

# Optional Parts

## Indoor Units

### ● 4-Way Cassette Type

HP	2.0 and 2.5	3.0 ~ 5.0
Air Panel		P-N23WA
Receiver Kit for Wireless Control		PC-ALH
3-Way Outlet Parts Set		PI-23LS5
Kit for Deodorant Filter		
Deodorant Filter	F-23L4-D	F-46L4-D
Filter Box		B-23H4
Antibacterial Long-life Filter	F-23L4-KS	F-23L4-K
Fresh Air Intake Kit *1		OACI-232
T-Pipe Connection Kit *2		TKCI-232
Duct Adapter *3		PD-75 (φ 75)

### ● 2-Way Cassette Type

HP	2.0 ~ 3.0	4.0 and 5.0
Air Panel	P-N23DWA	P-N46DWA
Receiver Kit for Wireless Control		PC-ALHD
Kit for Deodorant Filter		
Deodorant Filter	F-23LD4-D	F-46LD4-D
Filter Box	B-23HD4	B-46HD4
Antibacterial Long-life Filter	F-23LD4-K	F-46LD4-K
Fresh Air Intake Kit *1	OACID-231	OACID-461
Box Connection Kit *4		TBCID-1

### ● In-the-ceiling Type

HP	2.0 and 2.5	3.0	4.0	5.0
Long-Life Filter Kit				
Long-Life Filter	F-23LI3C	F-23LI3	F-34LI3	F-46LI3
Filter Box	B-23MI3C	B-23MI3	B-34MI3	B-46MI3
Drain-up Mechanism Kit	DUPI-132C		DUPI-162	
Receiver Kit for Wireless Control			PC-ALHZ	

### ● Ceiling Type

HP	2.0 ~ 5.0
Receiver Kit for Wireless Control	PC-ALHP

#### NOTES:

- \*1. It is necessary to use the Fresh Air Intake Kit to connect the fresh air intake duct to the unit.
- \*2. Used when two air intakes (φ 100 x 2) of the Fresh Air Intake Kit are changed to one air intake (φ 150 x 1).
- \*3. Used when fresh air intake duct are connected to the indoor unit directly.
- \*4. Used when both of the Fresh Air Intake Kit and Filter Box are used.





ISO 9001



ISO 14001

# HITACHI

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