Johnson Controls

HITACHI
Air conditioning solutions

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1907-SEA-HNRQ&HNSKQ-0

HITACHI

SET FREE mini

VARIABLE REFRIGERANT FLOW
AIR SOURCE HEAT PUMP TYPE
HNRQ SERIES
HNSKQ SERIES

Welcome

Air. It's a wonderful thing.

Invisible, silent and life-giving, air makes our entire world possible. It surrounds us, continuously energizing, cooling and warming. It can be unpredictable and sometimes challenging, but when air is in harmony with us, everything seems that much easier.

This is our vision.
To create the air that makes life better.

The beauty of balance

No matter what the weather is like outside, when you're indoors, you want to have complete control over your environment. At work or play, awake or asleep, you're free to create your own atmosphere; balancing energy with calm, sound with silence and light with shade. It's the same for cooling and heating.

When the air around you is in balance, you can enjoy life indoors that much more.

Living Harmony

At Hitachi Cooling & Heating we like to think of this as creating harmony with your interior environment. When we achieve that wonderful balance, productivity, learning, happiness and health can thrive.

We call this 'Living Harmony' and it's at the center of everything we do.

The future together

Living Harmony puts people first. By balancing the human needs of our customers with an uncompromising approach to innovation and quality, we can continue to create the technologies for a more comfortable and balanced world.

Your world. We live in it together.

Your world and Hitachi

Live within a climate of your own making

Air … To us it is something that is taken too much for granted.
So much so, that we can even forget it exists. Nevertheless, air is so essential that we could not go on living without it.

We believe that the ability to control the air indoors to our own liking, no matter what the environment outdoors, is a truly wonderful thing.

We want to create pleasant spaces of Living Harmony everywhere, for people all over the world.

With this thought in mind, we shall continue to produce technology that assures people can lead lives of comfort, safety and security.

Design for tomorrow's urban spaces

Spaces in our cities are under increasing pressure. Urban areas demand landscape preservation, and also require space efficiency. SET FREE mini outdoor units have a simple yet stylish design that does not mar the urban appearance.
At the same time, since a powerful and compact unit runs multiple indoor units, it meets urban needs and the expectations of users who are concerned about the appearance of their surroundings.

–
Learn more about our small footprint outdoor units on Page 09

Redefining comfort

Comfort can be felt in a variety of ways, from the temperature to quietness and even the air flow itself. Our wide-ranging line-up of indoor units can match various comfort requirements.

–
Learn more about our indoor units on Page 25

You are in control

Four types of individual controllers are available to match your needs: wireless and wired, and from advanced to simple. To manage energy and maintenance costs, our centralized controllers range from small to large. Select according to your needs, to enable your control.

–
Learn more about our control systems on Page 49

Introducing SET FREE mini

Helping you form an ideal living environment

We want to create a comfortable living environment where people can enjoy life to the full. SET FREE mini embodies such a wish. A host of outdoor units, indoor units and control devices matches the needs of various living spaces. Which is not only gratifying for the owners who use them, but also brings diverse benefits to architects, installers and other customers involved in space design.

AESTHETICS

We can offer you a number of options that help enhance the aesthetics of your building.

- Fashionable outdoor and indoor unit appearance
- Large capacity outdoor unit saves installation space

DESIGN FLEXIBILITY

Any local requirements and constraints can be met with a number of improvements in the outdoor unit.

- Piping flexibility
- High external pressure of outdoor unit
- Wide indoor unit combination
- Small body with large capacity

ADAPTABILITY

Both the quality and capability of adjustment to your environment are benefits of the HNRQ Series.

- Noise reduction mode
- Up to 52.0°C ambient temperature for cooling operations
- As low as -20.0°C ambient temperature for heating operations

EASY INSTALLATION

Overall cost and time reduction can be achieved thanks to our newly designed outdoor units and original H-LINK system.

- Slim and lightweight body
- H-LINK
- Four directions of piping in outdoor unit
- Diagnostics using the outdoor unit's 7-segment displays

HIGHER PERFORMANCE

We are committed to offering better energy-saving results with our improved outdoor units, indoor units and advanced control systems.

- Higher performance in both EER and COP
- Low standby power consumption design

COMFORT

Our units offer you a degree of comfort, even in winter or in high humidity environments.

- Smart defrosting

EASY SERVICING AND MAINTENANCE

Our original transmission system, H-LINK, and newly improved PCB support smooth servicing and maintenance.

- H-LINK
- User-friendly service board for easier testing and diagnostics

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Outdoor units

Owing to three types of outdoor unit with enhanced design and performance, we intelligently meet the requirements of various buildings as regards scale and construction, as well as air-conditioning needs. We believe that the paths to comfortable living all begin with Hitachi outdoor units.

LINE UP OVERVIEW

OFFERING YOU THREE TYPES OF OUTDOOR UNITS

(HP Class/Cooling Capacity/Heating Capacity/Weight)

HNRQ Series

3HP Class/8.0kW/9.0kW/75kg
3.5HP Class/10.0kW/11.0kW/75kg

4HP Class/11.2kW/12.5kW/114kg
4.5HP Class/12.0kW/14.0kW/114kg
5HP Class/14.0kW/16.0kW/114kg
6HP Class/16.0kW/18.0kW/118kg
6.5HP Class/18.0kW/20.0kW/118kg

7HP Class/20.0kW/22.4kW/154kg
8HP Class/22.4kW/25.0kW/154kg
9HP Class/25.0kW/27.5kW/154kg
10HP Class/28.1kW/31.5kW/172kg
11HP Class/31.0kW/33.9kW/172kg
12HP Class/33.5kW/37.5kW/172kg

SUMMARY TABLE

Item		Unit	HNRQ Series
Capacity	HP class	HP	3-12
	Nominal cooling	kW	8.0-33.5
	Nominal heating	kW	9.0-37.5
Connectable indoor unit quantity		unit	2-18
Combination capacity ratio between ODU and IDU (all range)		%	50-130
Maximum piping length	Total liquid piping length	m	100-180
	Between outdoor unit and farthest indoor unit	m	65-100
	Between 1st branch multi kit and farthest indoor unit	m	40
	Between multi kit and each indoor unit	m	15
Maximum level difference	Between outdoor unit and indoor units (ODU above IDU)	m	30/50
	Between outdoor unit and indoor units (IDU above ODU)	m	30/40
	Between indoor units	m	15
Cooling operation range *		°C DB	-5.0 to 52.0
Heating operation range *		°C DB	-20.0 to 24.0

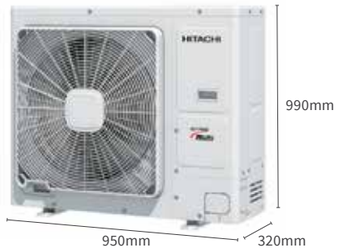
* For more details, please consult your distributors or dealer, or, refer to technical manuals.

OFFERING YOU THREE TYPES OF OUTDOOR UNITS

(HP Class/Cooling Capacity/Heating Capacity/Weight)

HNSKQ Series

3.0HP Class/8.0KW/9.5KW/74kg
3.5HP Class/10.0KW/11.2KW/74Kg
4.0HP Class/11.2KW/12.5KW/74Kg



4.5HP Class/12.5KW/14.0KW/87Kg
5.0HP Class/14.0KW/16.0KW/87Kg
6.0HP Class/15.5KW/17.0KW/87Kg

6.5HP Class/18.0KW/20.0KW/118Kg
7.0HP Class/20.0KW/22.4KW/118Kg

SUMMARY TABLE

Item		Unit	HNSKQ Series
Capacity	HP class	HP	3-7
	Nominal cooling	kW	8.0-20.0
	Nominal heating	kW	9.5-22.4
Connectable indoor unit quantity		unit	2-10
Combination capacity ratio between ODU and IDU (all range)		%	50-130
Maximum piping length	Total liquid piping length	m	30-120
	Between outdoor unit and farthest indoor unit	m	25-75
	Between 1st branch multi kit and farthest indoor unit	m	20/30
	Between multi kit and each indoor unit	m	10
Maximum level difference	Between outdoor unit and indoor units (ODU above IDU)	m	20/30
	Between outdoor unit and indoor units (IDU above ODU)	m	20/30
	Between indoor units	m	10
Cooling operation range *		°C DB	-5.0 to 52.0
Heating operation range *		°C DB	-20.0 to 24.0

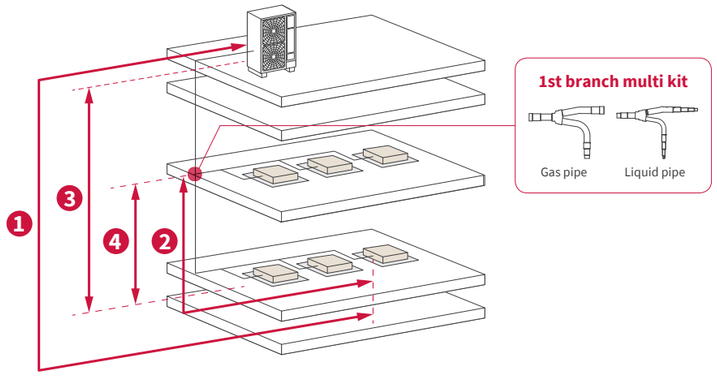
* For more details, please consult your distributors or dealer, or, refer to technical manuals.

DESIGN FLEXIBILITY

PIPING FLEXIBILITY

Longer and more flexible piping has been realized.

This helps in dealing with various piping restrictions.



HNRQ Series

Maximum piping length

	3-3.5HP Class	4-5HP Class	6-6.5HP Class	7-12HP Class
Total piping length	100m	120m	150m	180m
1 Between outdoor unit and farthest indoor unit	65m	70m	85m	100m
2 Between 1st branch multi kit and farthest indoor unit	40m	40m	40m	40m

Maximum level difference

		3-3.5HP Class	4-5HP Class	6-6.5HP Class	7-12HP Class
3 Between outdoor unit and indoor units	ODU above IDU	30m	30m	30m	50m
	IDU above ODU	30m	30m	30m	40m
4 Between indoor units		15m	15m	15m	15m

Each maximum length or level difference has several conditions, please refer to the technical documents in inquiry.

HNSKQ Series

Maximum piping length

	3HP Class	3.5-4HP Class	4.5-6HP Class	6.5-7HP Class
Total piping length	30m	40m	70m	120m
1 Between outdoor unit and farthest indoor unit	25m	25m	60m	75m
2 Between 1st branch multi kit and farthest indoor unit	20m	20m	30m	30m

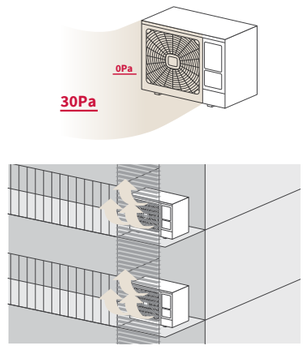
Maximum level difference

		3HP Class	3.5-4HP Class	4.5-6HP Class	6.5-7HP Class
3 Between outdoor unit and indoor units	ODU above IDU	20m	20m	30m	30m
	IDU above ODU	20m	20m	20m	30m
4 Between indoor units		3.5m	3.5m	10m	10m

Each maximum length or level difference has several conditions, please refer to the technical documents in inquiry.

HIGH EXTERNAL PRESSURE OF OUTDOOR UNIT

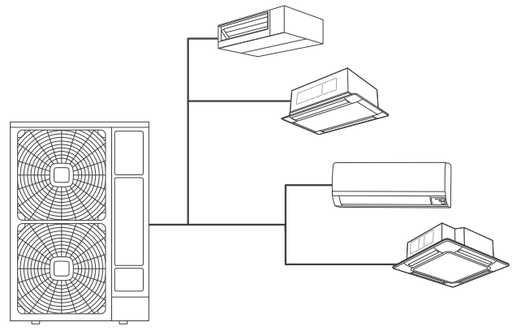
High external static pressure up to 30Pa is available in order to avoid air short-circuit conditions. This ensures that the outdoor unit runs with a good ventilating condition under different conditions of installation.



WIDE INDOOR UNIT COMBINATION

Because of the large-capacity outdoor unit, it is possible to install a whole range of indoor units in various rooms using one outdoor unit.

HNRQ: Up to 18 units
HNSKQ: Up to 10 units

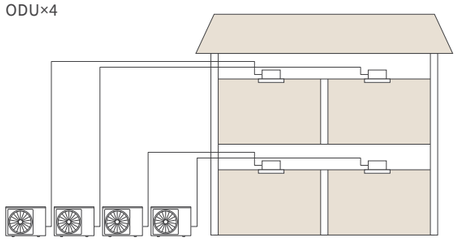


LARGE CAPACITY OUTDOOR UNIT SAVES INSTALLATION SPACE

Instead of the previous configuration of one indoor unit connected to one outdoor unit, the new outdoor unit has a capacity large enough to connect to multiple indoor units, significantly reducing installation space. In addition, this lets you preserve the aesthetic look of the building.

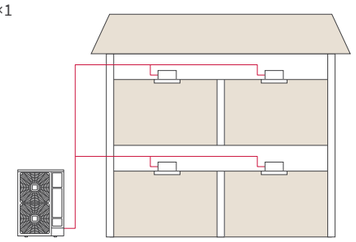
Previous Series

ODU×4



HNRQ & HNSKQ Series

ODU×1



HIGHER PERFORMANCE

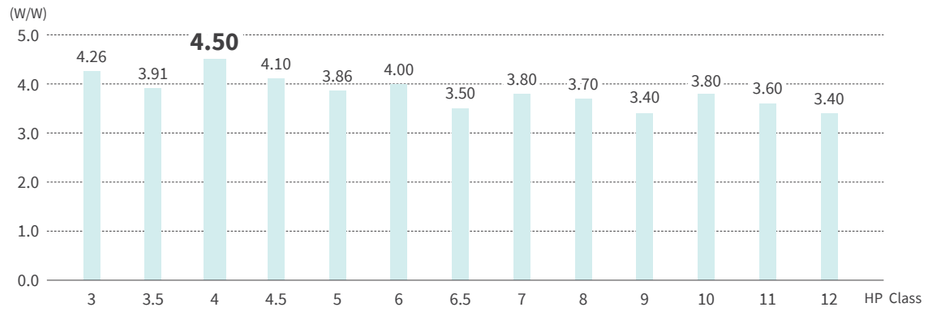
HIGHER PERFORMANCE IN BOTH EER AND COP

The HNRQ Series offers greater energy efficiency and a higher coefficient of performance, contributing to the environment while being easier on the wallet.

HNRQ Series

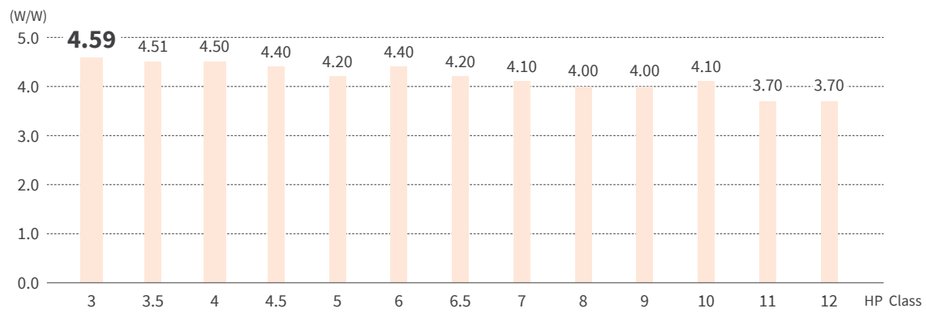
EER: Energy Efficiency Ratio

Cooling EER



COP: Coefficient Of Performance

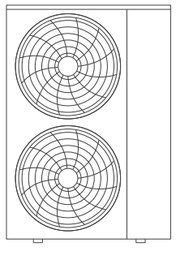
Heating COP



LOW STANDBY POWER CONSUMPTION DESIGN

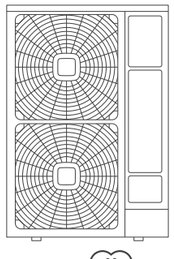
Low standby power consumption design decreases the outdoor unit's standby power consumption from 20W to lower than 5W compared with the Previous Series.

Previous Series



20W

HNRQ & HNSKQSeries



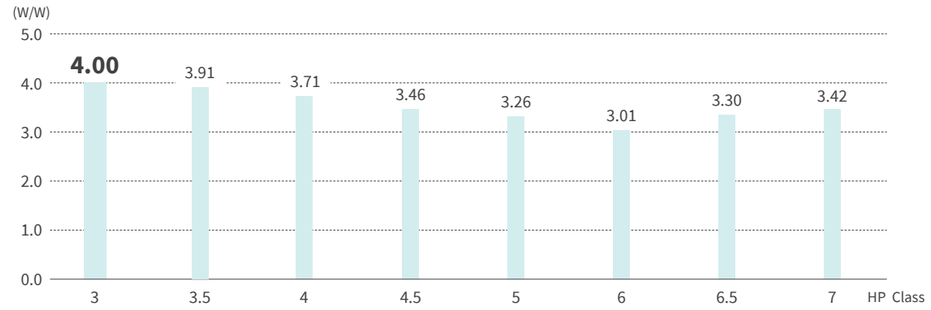
5W

* Please refer to the technical catalog for more details.

HNSKQ Series

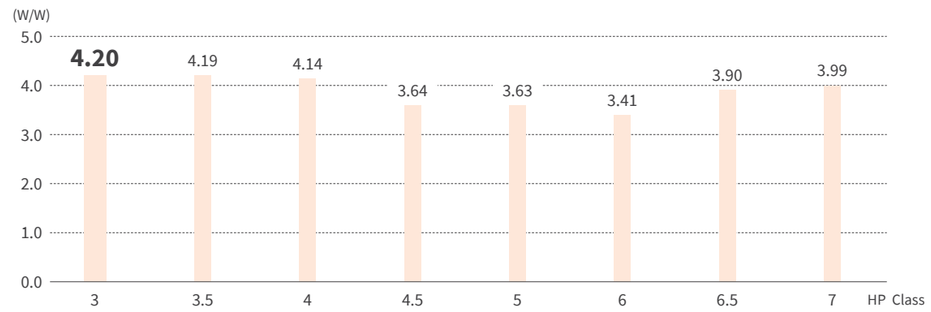
EER: Energy Efficiency Ratio

Cooling EER



COP: Coefficient Of Performance

Heating COP



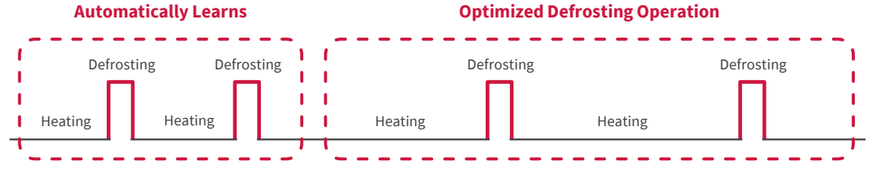
COMFORT

SMART DEFROSTING

Frost on the outdoor unit's heat exchanger reduces heating capability. Defrosting is, therefore, essential, although there is no heating in a defrosting operation. Intelligent defrosting technology automatically learns the operating data of the previous defrosting cycle and detects power data of the fan motor. From these data it determines the optimal operation of the next defrosting cycle, thereby helping to reduce the frequency of defrosting while enhancing the comfort level and heating capacity.

Previous Defrosting Mode

HNRQ & HNSKQ Series Defrosting Mode



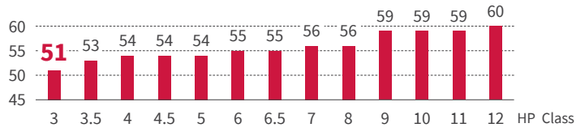
ADAPTABILITY

NOISE REDUCTION MODE

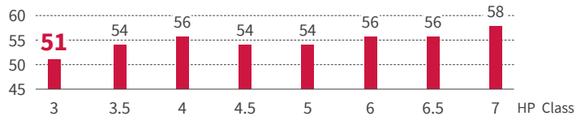
Capacity priority mode (standard)

The system runs per capacity requirement; meanwhile, both compressor and fan speeds are adjusted to lower the noise.

HNRQ Series
GB, Semi-anechoic, dB(A)



HNSKQ Series
GB, Semi-anechoic, dB(A)



Silent night mode (optional)

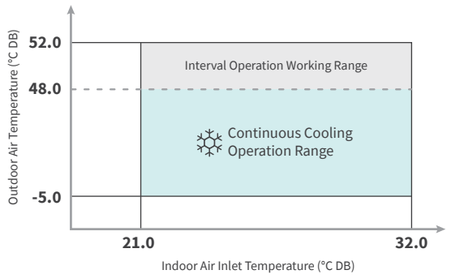
With the optional night mode setting, when the ambient temperature is 30.0°C or below in a cooling operation, the rotation speeds of the compressor and the outdoor fan are automatically reduced. When night mode is activated, noise can be decreased by 3-10dB(A) compared with normal operation.

NOTES:
Night mode is recommended when cooling capacity has a sufficient margin against cooling load, and when it is essential to lower operating noise at night.

UP TO 52.0°C AMBIENT TEMPERATURE FOR COOLING OPERATIONS

- Up to 48.0°C stable running
- Up to 52.0°C interval running

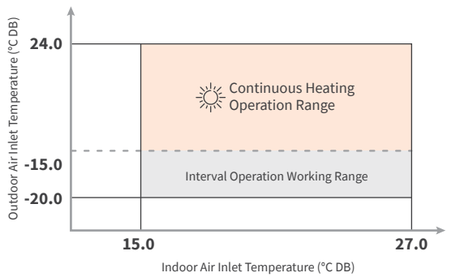
Special fresh air intake and trapezoid heat sink design are adopted for the inverter driver. This improves heat emission and allows the system to be running stably under high ambient conditions.



AS LOW AS -20.0°C AMBIENT TEMPERATURE FOR HEATING OPERATIONS

- As low as -15.0°C stable running
- As low as -20.0°C interval running

HNRQ: Special 3-row coil design (3/3.5/6/6.5/10/11/12HP class) and larger area of coil enhance heating capability.
HNSKQ: Special 3-row coil design (4.5/5/6/6.5/7HP) and larger area of coil enhance heating capability.
This enables heating as low as -20.0°C ambient condition even in cold regions.



EASY INSTALLATION

SLIM AND LIGHTWEIGHT BODY

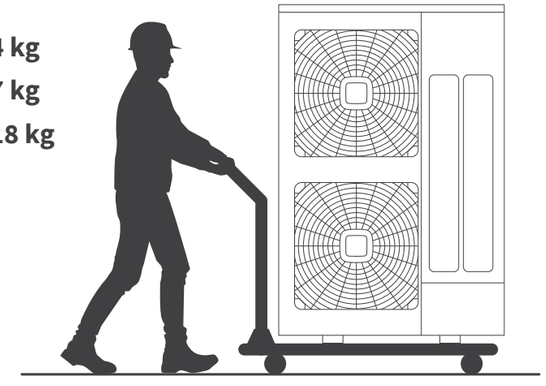
The lightweight body eases transportation, which saves costs and time.

HNRQ Series

- 3-3.5HP Class — 75 kg
- 4-5HP Class — 114 kg
- 6-6.5HP Class — 118 kg
- 7-9HP Class — 154 kg
- 10-12HP Class — 172 kg

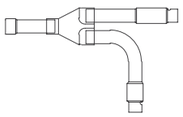
HNSKQ Series

- 3-4HP Class — 74 kg
- 4.5-6HP Class — 87 kg
- 6.5-7HP Class — 118 kg

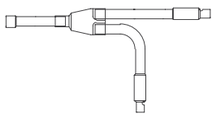


OPTIONAL PARTS

MULTI-KIT



Gas pipe



Liquid pipe

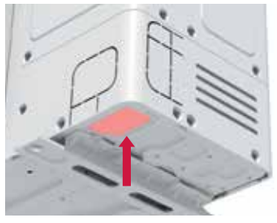
Model			E-102SN	
Applicable Outdoor Unit	HP Class		3-6.5	7-12
	Cooling	kW	8.0-18.0	20.0-33.5

FOUR DIRECTIONS OF PIPING IN OUTDOOR UNIT

Front & Right

Rear

Bottom



Stop valve built with 4-directional outlet piping for easier pipe installation.
The refrigerant pipes can connect the stop valves from the front and right, rear and bottom of the unit.

DIAGNOSTICS USING THE OUTDOOR UNIT'S 7-SEGMENT DISPLAYS

The PCB in the outdoor unit is equipped with two 7-segment displays.
The displays indicate various operating modes, such as:

- Outdoor air temperature
- Discharge temperature
- Evaporating temperature during heating operation
- Condensing temperature
- Discharge pressure
- Suction pressure
- Compressor run time

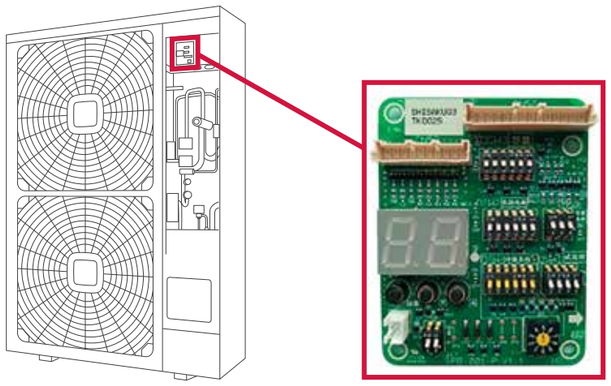
Therefore, quick and accurate diagnosing is available at the site during the test run or normal operation.

USER-FRIENDLY SERVICE BOARD FOR EASIER TESTING AND DIAGNOSTICS

User-friendly service board with dial code switch and push button is designed for easier testing and diagnostics.
The service board, which is located in front of the outdoor unit, is easy to set.

Functions are as follows:

- Monitoring real-time running status
- Displaying the fault code for diagnostics
- Checking historical fault information
- Optimizing control parameters based on the installation field condition



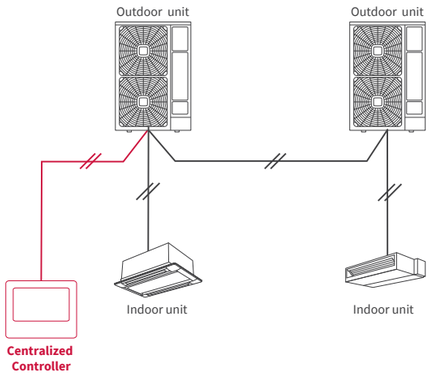
EASY SERVICING AND MAINTENANCE

H-LINK

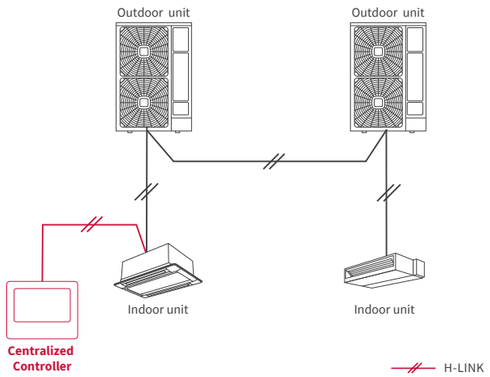
H-LINK requires only two transmission wires connected to each outdoor unit for up to 64 refrigerant cycles, and connecting wires for all indoor units and outdoor units.

- Flexible installation options
- No polarity requirements
- Centralized Controller is enabled via indoor or outdoor unit
- Up to 160 indoor units and outdoor units can be connected
- Possible to have a cable length of up to 1,000m

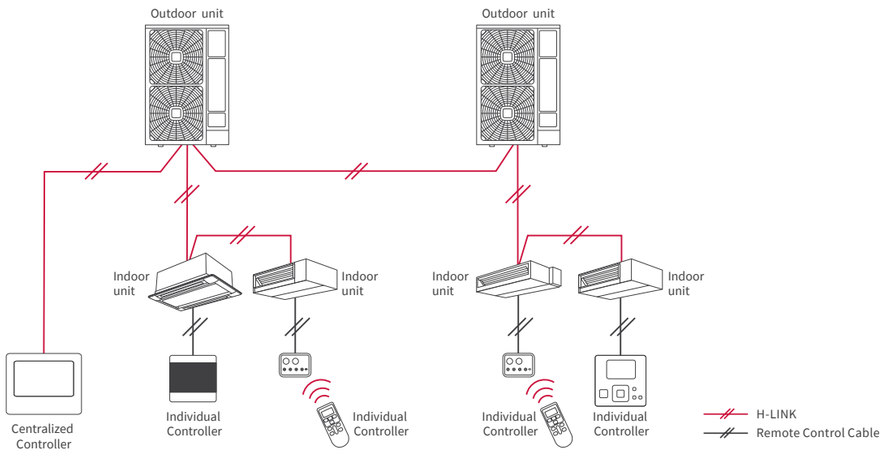
Centralized Controller to Outdoor Unit



Centralized Controller to Indoor Unit



H-LINK can collect information on all indoor units from a single outdoor unit. This substantially enhances service and maintenance efficiency.



SPECIFICATIONS

HNRQ Series

HP Class			3	3.5	4	4.5	5	6	6.5
Model		unit	RAS-3.0HNBRKQ	RAS-3.5HNBRKQ	RAS-4.0HNBRKQ	RAS-4.5HNBRKQ	RAS-5.0HNBRKQ	RAS-6.0HNBRKQ	RAS-6.5HNBRKQ
Power Supply		V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
Capacity	Cooling	kW	8.0	10.0	11.2	12.0	14.0	16.0	18.0
	Heating	kW	9.0	11.0	12.5	14.0	16.0	18.0	20.0
Power Input	Cooling	kW	1.88	2.56	2.49	2.93	3.63	4.00	5.14
	Heating	kW	1.96	2.44	2.78	3.18	3.81	4.09	4.76
Air Flow Rate	Standard	m^3/min	62	62	132	132	132	135	135
Dimensions	H×W×D	mm	800×950×320	800×950×320	1,380×950×320	1,380×950×320	1,380×950×320	1,380×950×320	1,380×950×320
Weight	Net	kg	75	75	114	114	114	118	118
Footprint Area		m^2	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Packaging Volume		m^3	0.48	0.48	0.77	0.77	0.77	0.77	0.77
Compressor Type			Twin Rotary	Twin Rotary	Twin Rotary	Twin Rotary	Twin Rotary	Twin Rotary	Twin Rotary
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Charge Amount	kg	3.0	3.0	4.1	4.1	4.1	4.4	4.4
Refrigerant Oil	Model		α 68HES-H	α 68HES-H	α 68HES-H	α 68HES-H	α 68HES-H	α 68HES-H	α 68HES-H
	Charge Amount	L	1.02	1.02	1.65	1.65	1.65	1.65	1.65
Number of Fan Motors			1	1	2	2	2	2	2
Capacity Ratio of IDU/ODU		%	50-130%	50-130%	50-130%	50-130%	50-130%	50-130%	50-130%
Sound Pressure Level	Semi-anechoic	dB(A)	51	53	54	54	54	55	55
Piping	Liquid	mm	ϕ9.52	ϕ9.52	ϕ9.52	ϕ9.52	ϕ9.52	ϕ9.52	ϕ9.52
	Gas	mm	ϕ15.88	ϕ15.88	ϕ15.88	ϕ15.88	ϕ15.88	ϕ15.88	ϕ15.88
Current	Max	A	21.0	21.0	31.0	31.0	31.0	31.0	31.0
	Breaker	A	32	32	40	40	40	40	40
	Cooling	A	9.5	12.9	12.6	14.8	18.3	20.2	26.0
	Heating	A	9.9	12.3	14.0	16.1	19.2	20.7	24.0
Efficiency	EER	W/W	4.26	3.91	4.50	4.10	3.86	4.00	3.50
	COP	W/W	4.59	4.51	4.50	4.40	4.20	4.40	4.20
Max IDU Connect Qty.			4	5	6	6	7	8	9
Working Temp. Range	Cooling		Stable Work at -5.0~48.0°C DB and Interval at 48.0~52.0°C DB						
	Heating		Stable Work at -15.0~24.0°C DB and Interval at -20.0~-15.0°C DB						
Refrigerant Control Mode Electronic Expansion Valve			Microcomputer-controlled Electronic Expansion Valve						
Tubing Connection Method			Flare Connection						
Maximum Piping Length	Total Liquid Pipe Length	m	100	100	120	120	120	150	150
	Between ODU and farthest IDU	m	65	65	70	70	70	85	85
	Between 1st Branch Multi Kit and Farthest IDU	m	40	40	40	40	40	40	40
	Between Each Multi Kit and Each IDU	m	15	15	15	15	15	15	15
Maximum Level Difference	Between ODU and IDU	m	30	30	30	30	30	30	30
		m	30	30	30	30	30	30	30
	Between IDUs	m	15	15	15	15	15	15	15

Notes:
1. The EER and COP are tested under the following working conditions, when the outdoor unit is connected to the special combination of indoor units.

Working conditions for testing EER
- Indoor temperature: 27.0°C DB/19.0°C WB
- Outdoor temperature: 35.0°C DB
- Pipe length: 10.0 metre
- Pipe lift: 0 metre

Working conditions for testing COP
- Indoor temperature: 20.0°C DB
- Outdoor temperature: 7.0°C DB/6.0°C WB
- Pipe length: 10.0 metre
- Pipe lift: 0 metre

2. Noise test conditions are specified below: Noise is tested 1.5 metre above ground level and 1.0 metre away from the surface of the external service board on the outdoor unit. Noise parameters are tested in a semi-anechoic chamber.
3. Please consult your local distributor for indoor unit combination limitations.

SPECIFICATIONS

HNRQ Series

HP Class			7	8	9	10	11	12
Model		unit	RAS-7.0HNBRMQ	RAS-8.0HNBRMQ	RAS-9.0HNBRMQ	RAS-10HNBRMQ	RAS-11HNBRMQ	RAS-12HNBRMQ
Power Supply		V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Capacity	Cooling	kW	20.0	22.4	25.0	28.1	31.0	33.5
	Heating	kW	22.4	25.0	27.5	31.5	33.9	37.5
Power Input	Cooling	kW	5.26	6.05	7.35	7.39	8.61	9.85
	Heating	kW	5.46	6.25	6.88	7.68	9.16	10.14
Air Flow Rate	Standard	m^3/min	162	162	162	172	172	172
Dimensions	H×W×D	mm	1,650×1,100×390	1,650×1,100×390	1,650×1,100×390	1,650×1,100×390	1,650×1,100×390	1,650×1,100×390
Weight	Net	kg	154	154	154	172	172	172
Footprint Area		m^2	0.43	0.43	0.43	0.43	0.43	0.43
Packaging Volume		m^3	1.04	1.04	1.04	1.04	1.04	1.04
Compressor Type			Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A
	Charge Amount	kg	5.5	5.5	5.5	6.5	6.5	6.5
Refrigerant Oil	Model		FV68H	FV68H	FV68H	FV68H	FV68H	FV68H
	Charge Amount	L	1.60	1.60	1.60	1.60	1.60	1.60
Number of Fan Motors			2	2	2	2	2	2
Capacity Ratio of IDU/ODU		%	50-130%	50-130%	50-130%	50-130%	50-130%	50-130%
Sound Pressure Level	Semi-anechoic	dB(A)	56	56	59	59	59	60
Piping	Liquid	mm	ϕ9.52	ϕ9.52	ϕ12.7	ϕ12.7	ϕ12.7	ϕ12.7
	Gas	mm	ϕ19.05	ϕ19.05	ϕ19.05*	ϕ19.05*	ϕ19.05**	ϕ19.05**
Current	Max	A	20.0	20.0	20.0	28.0	28.0	28.0
	Breaker	A	25	25	25	40	40	40
	Cooling	A	13.0	14.0	15.0	19.0	20.0	21.0
	Heating	A	12.0	13.0	14.0	18.0	19.0	20.0
Efficiency	EER	W/W	3.80	3.70	3.40	3.80	3.60	3.40
	COP	W/W	4.10	4.00	4.00	4.10	3.70	3.70
Max IDU Connect Qty.			10	12	13	15	16	18
Working Temp. Range	Cooling		Stable Work at -5.0~48.0°C DB and Interval at 48.0~52.0°C DB					
	Heating		Stable Work at -15.0~24.0°C DB and Interval at -20.0~-15.0°C DB					
Refrigerant Control Mode Electronic Expansion Valve			Microcomputer-controlled Electronic Expansion Valve					
Tubing Connection Method			Flare Connection					
Maximum Piping Length	Total Liquid Pipe Length	m	180	180	180	180	180	180
	Between ODU and farthest IDU	m	100	100	100	100	100	100
	Between 1st Branch Multi Kit and Farthest IDU	m	40	40	40	40	40	40
	Between Each Multi Kit and Each IDU	m	15	15	15	15	15	15
Maximum Level Difference	Between ODU and IDU	m	50	50	50	50	50	50
		m	40	40	40	40	40	40
	Between IDUs	m	15	15	15	15	15	15

* Indicates that there are pipe adapters in the outdoor unit, which are used to adjust the gas pipe between the outdoor unit and the first branch. Thus the ϕ19.05 diameter pipe is converted to ϕ22.2 diameter pipe in the model.
** Indicates that there is a pipe adapter in the model, which is used to adjust the gas pipe length between the outdoor unit and the first branch. Thus the ϕ19.05 diameter pipe is converted to a ϕ25.4 diameter pipe.

Notes:
1. The EER and COP are tested under the following working conditions, when the outdoor unit is connected to the special combination of indoor units.

Working conditions for testing EER
- Indoor temperature: 27.0°C DB/19.0°C WB
- Outdoor temperature: 35.0°C DB
- Pipe length: 10.0 metre
- Pipe lift: 0 metre

Working conditions for testing COP
- Indoor temperature: 20.0°C DB
- Outdoor temperature: 7.0°C DB/6.0°C WB
- Pipe length: 10.0 metre
- Pipe lift: 0 metre

2. Noise test conditions are specified below: Noise is tested 1.5 metre above ground level and 1.0 metre away from the surface of the external service board on the outdoor unit. Noise parameters are tested in a semi-anechoic chamber.
3. Please consult your local distributor for indoor unit combination limitations.

SPECIFICATIONS

HNSKQ Series

HP Class			3	3.5	4	4.5	5	6
Model		unit	RAS-3.0HNSKQ	RAS-3.5HNSKQ	RAS-4.0HNSKQ	RAS-4.5HNSKQ	RAS-5.0HNSKQ	RAS-6.0HNSKQ
Power Supply		V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
Capacity	Cooling	kW	8.0	10.0	11.2	12.5	14.0	15.5
	Heating	kW	9.5	11.2	12.5	14.0	16.0	17.0
Power Input	Cooling	kW	2.00	2.56	3.02	3.61	4.30	5.15
	Heating	kW	2.26	2.67	3.02	3.85	4.41	4.99
Air Flow Rate	Standard	m^3/min	60	67	71	69	71	71
Dimensions	H×W×D	mm	800×950×320	800×950×320	800×950×320	990×950×320	990×950×320	990×950×320
Weight	Net	kg	74	74	74	87	87	87
Footprint Area		m^2	0.30	0.30	0.30	0.30	0.30	0.30
Packaging Volume		m^3	0.47	0.47	0.47	0.51	0.51	0.51
Compressor Type			Rotary	Rotary	Rotary	Rotary	Rotary	Rotary
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A
	Charge Amount	kg	2.5	3.1	3.1	4	4	4
Refrigerant Oil	Model		α68HES-H	α68HES-H	α68HES-H	α68HES-H	α68HES-H	α68HES-H
	Charge Amount	L	0.88	0.88	0.88	1.65	1.65	1.65
Number of Fan Motors			1	1	1	1	1	1
Capacity Ratio of IDU/ODU		%	50%~130%	50%~130%	50%~130%	50%~130%	50%~130%	50%~130%
Sound Pressure Level	Semi-anechoic	dB(A)	51	54	56	54	54	56
Piping	Liquid	mm	ϕ9.53	ϕ9.53	ϕ9.53	ϕ9.53	ϕ9.53	ϕ9.53
	Gas	mm	ϕ15.88	ϕ15.88	ϕ15.88	ϕ15.88	ϕ15.88	ϕ15.88
Current	Max	A	25	25	25	30	31	33
	Breaker	A	32	32	32	40	40	40
	Cooling	A	9.18	11.75	13.87	16.42	19.25	23.79
	Heating	A	10.38	12.26	13.87	15.31	19.94	22.4
Efficiency	EER	W/W	4.00	3.91	3.71	3.46	3.26	3.01
	COP	W/W	4.20	4.19	4.14	3.64	3.63	3.41
Max IDU Connect Qty.			4	5	5	5	6	6
Working Temp. Range	Cooling		Stable Work at -5.0~48.0°C DB and Interval at 48.0~52.0°C DB					
	Heating		Stable Work at -15.0~24.0°C DB and Interval at -20.0~-15.0°C DB					
Refrigerant Control Mode Electronic Expansion Valve			Microcomputer-controlled Electronic Expansion Valve					
Tubing Connection Method			Flare Connection					
Maximum Piping Length	Total Liquid Pipe Length	m	30	40	40	70	70	70
	Between ODU and farthest IDU	m	25	25	25	60	60	60
	Between 1st Branch Multi Kit and Farthest IDU	m	20	20	20	30	30	30
	Between Each Multi Kit and Each IDU	m	10	10	10	10	10	10
Maximum Level Difference	Between ODU and IDU	m	20	20	20	30	30	30
		m	20	20	20	20	20	20
	Between IDUs	m	3.5	3.5	3.5	10	10	10

Notes:
1. The EER and COP are tested under the following working conditions, when the outdoor unit is connected to the special combination of indoor units.

Working conditions for testing EER
- Indoor temperature: 27.0°C DB/19.0°C WB
- Outdoor temperature: 35.0°C DB
- Pipe length: 10.0 metre
- Pipe lift: 0 metre

Working conditions for testing COP
- Indoor temperature: 20.0°C DB
- Outdoor temperature: 7.0°C DB/6.0°C WB
- Pipe length: 10.0 metre
- Pipe lift: 0 metre

2. Noise test conditions are specified below: Noise is tested 1.5 metre above ground level and 1.0 metre away from the surface of the external service board on the outdoor unit. Noise parameters are tested in a semi-anechoic chamber.
3. Please consult your local distributor for indoor unit combination limitations.

SPECIFICATIONS

HNSKQ Series

HP Class			6.5	7
Model			RAS-6.5HNSKQ	RAS-7.0HNSKQ
Power Supply		V/Ph/Hz	220-240/1/50	220-240/1/50
Capacity	Cooling	kW	18.0	20.0
	Heating	kW	20.0	22.4
Power Input	Cooling	kW	5.46	5.85
	Heating	kW	5.13	5.61
Air Flow Rate	Standard	m^3/min	101	122
Dimensions	H×W×D	mm	1380×950×320	1380×950×320
Weight	Net	kg	118	118
Footprint Area		m^2	0.30	0.30
Packaging Volume		m^3	0.76	0.76
Compressor Type			Rotary	Rotary
Refrigerant	Type		R410A	R410A
	Charge Amount	kg	5.5	5.9
Refrigerant Oil	Model		α68HES-H	α68HES-H
	Charge Amount	L	1.8	1.8
Number of Fan Motors			2	2
Capacity Ratio of IDU/ODU		%	50%~130%	50%~130%
Sound Pressure Level	Semi-anechoic	dB(A)	56	58
Piping	Liquid	mm	9.53	9.53
	Gas	mm	15.88	15.88
Current	Max	A	32	32
	Breaker	A	40	40
	Cooling	A	25.07	26.86
	Heating	A	23.55	25.76
Efficiency	EER	W/W	3.30	3.42
	COP	W/W	3.90	3.99
Max IDU Connect Qty.			9	10
Working Temp. Range	Cooling		Stable Work at -5.0~48.0°C DB and Interval at 48.0~52.0°C DB	
	Heating		Stable Work at -15.0~24.0°C DB and Interval at -20.0~-15.0°C DB	
Refrigerant Control Mode Electronic Expansion Valve			Microcomputer-controlled Electronic Expansion Valve	
Tubing Connection Method			Flare Connection	
Maximum Piping Length	Total Liquid Pipe Length	m	120	120
	Between ODU and farthest IDU	m	75	75
	Between 1st Branch Multi Kit and Farthest IDU	m	30	30
	Between Each Multi Kit and Each IDU	m	10	10
Maximum Level Difference	Between ODU and IDU	m	30	30
		m	30	30
	Between IDUs	m	10	10

* Indicates that there are pipe adapters in the outdoor unit, which are used to adjust the gas pipe between the outdoor unit and the first branch. Thus the ϕ19.05 diameter pipe is converted to ϕ22.2 diameter pipe in the model.
** Indicates that there is a pipe adapter in the model, which is used to adjust the gas pipe length between the outdoor unit and the first branch. Thus the ϕ19.05 diameter pipe is converted to a ϕ25.4 diameter pipe.

Notes:
1. The EER and COP are tested under the following working conditions, when the outdoor unit is connected to the special combination of indoor units.

Working conditions for testing EER
- Indoor temperature: 27.0°C DB/19.0°C WB
- Outdoor temperature: 35.0°C DB
- Pipe length: 10.0 metre
- Pipe lift: 0 metre

Working conditions for testing COP
- Indoor temperature: 20.0°C DB
- Outdoor temperature: 7.0°C DB/6.0°C WB
- Pipe length: 10.0 metre
- Pipe lift: 0 metre

2. Noise test conditions are specified below: Noise is tested 1.5 metre above ground level and 1.0 metre away from the surface of the external service board on the outdoor unit. Noise parameters are tested in a semi-anechoic chamber.
3. Please consult your local distributor for indoor unit combination limitations.

Indoor units & Ventilation

SET FREE mini offers a variety of indoor units in its line-up to achieve comfortable air conditioning that flexibly addresses various applications and shapes of space. By raising the "quality" of the air, we believe that the "quality" of time customers spend there will also be enhanced.

LINE UP OVERVIEW

COMPARING INDOOR UNITS CAPACITY

IDU Category		Nominal Capacity (Cooling)															
		2.2	2.8	3.6	4.0	4.3	5.0	5.6	6.3	7.1	8.0	8.4	9.0	11.0	14.0	14.2	16.0
CEILING CASSETTE	4-WAY CASSETTE TYPE		●		●			●		●	●			●	●		●
CEILING CASSETTE	4-WAY CASSETTE COMPACT TYPE	●	●		●			●		●							
CEILING CASSETTE	2-WAY CASSETTE TYPE	●	●		●			●		●	●			●	●		●
CEILING CASSETTE	1-WAY CASSETTE TYPE	●	●		●			●		●	●						
DUCTED	HIGH ESP TYPE											●	●	●		●	●
DUCTED	MEDIUM ESP TYPE	●	●	●		●	●	●	●	●							
DUCTED	LOW ESP TYPE	●	●	●		●	●	●	●	●		●	●	●		●	●
DUCTED	SLIM TYPE	●	●	●		●											
DUCTED	COMPACT TYPE (BOTH AC MOTOR TYPE AND DC MOTOR TYPE AVAILABLE)	●	●	●		●	●	●	●	●							
CONCEALED & EXPOSED	FLOOR CONCEALED TYPE		●			●		●		●							
CONCEALED & EXPOSED	FLOOR/CEILING CONVERTIBLE TYPE						●	●	●	●		●	●	●		●	
CONCEALED & EXPOSED	CEILING SUSPENDED TYPE				●			●		●	●			●		●	●
CONCEALED & EXPOSED	WALL MOUNTED TYPE	●	●	●	●		●	●	●	●	●			●			

VENTILATIONS CAPACITY

Fan Air Flow Rate (m^3/h)	200	300	400	500	650	800	1,000	1,080	1,250	1,500	1,680	2,000	2,100	2,500	3,000	4,000	5,000	6,000
TOTAL HEAT EXCHANGER	●	●	●	●	●	●	●		●	●		●		●	●	●	●	

KEY INFORMATION

CEILING CASSETTE

4-WAY CASSETTE TYPE
- With area of air distribution with 4 direction of louvers (distribution with distance available with optional parts (duct flange))
- Motion sensor available for better energy saving operation
- Individual four-way louvres for greater comfort for individual users
- Ideal for a higher ceiling location for installation (up to 5.5m in cooling mode)

4-WAY CASSETTE COMPACT TYPE
- Dimensions correspond with 600mm×600mm architectural module ceiling design specifications
- Quiet operation level (as low as 24.5 dB(A))
- Wide range of air flow rate ideal for high ceiling installation with 4.6m air blow down in cooling mode

2-WAY CASSETTE TYPE
- Motion sensor available for better energy saving operation
- Ideal for a higher ceiling location for installation (up to 4.6m in cooling mode)
- Individual louvres operation for greater comfort for individual users
- Quiet operation level (as low as 27dB(A))

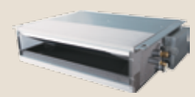
1-WAY CASSETTE TYPE
- Motion sensor available for better energy saving operation
- Optimum air flow conditions are created by either downward air discharge or frontal air discharge (via optional grille) or a combination of both
- Quiet operation level (as low as 27dB(A))

DUCTED

HIGH ESP TYPE
- High ESP (90/120Pa for 3.0-6.0HP class)
- Space saving design thanks to a height of only 300mm (3.0-6.0HP class)

MEDIUM ESP TYPE
- 2 steps of medium ESP (50/80Pa for 0.8-2.5HP class)
- Space saving design thanks to a height of only 270mm (0.8-2.5HP class)

LOW ESP TYPE
- Low ESP (30Pa for 0.8-2.5HP class, 60Pa for 3.0-6.0HP class)
- Space saving design thanks to a height of only 270mm (0.8-2.5HP class) or 350mm (3.0-6.0HP class)



SLIM TYPE
- Ideal for narrow ceiling voids installation thanks to low height up to 192mm & width just 700mm
- Drain-pump with 900mm lift as standard optional part
- Quiet operation level (as low as 22 dB(A))

COMPACT TYPE (BOTH AC MOTOR TYPE AND DC MOTOR TYPE AVAILABLE)
- Ideal for installation over the closet or windows thanks to the up to the compactness with 192mm height
- Drain-pump with 900mm lift as standard optional part
- Quiet operation level (as low as 20dB(A))
- Fan air flow rate up to 6 taps (DC motor model only)

CONCEALED & EXPOSED

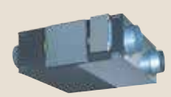
FLOOR CONCEALED TYPE
- Visual aesthetics: it can be hidden away even when there is no ceiling void. Little installation space required thanks to only 220mm depth
- Height just up to 620mm, suitable for installation beneath the window

FLOOR/CEILING CONVERTIBLE TYPE
- Fully [Floor mounted] or [Ceiling suspended] installation convertible
- Easy installation
- Fresh air-intake design

CEILING SUSPENDED TYPE
- Ideal for a higher ceiling location for installation (up to 5.6m in cooling)
- Better power-saving with optional Motion Sensor
- Quiet operation level (as low as 28dB(A))

WALL MOUNTED TYPE
- Simple installation procedure
- Flexible discreet design suitable to any interior

VENTILATIONS



TOTAL HEAT EXCHANGER
- Creates a healthy indoor environment thanks to introducing fresh air function and ventilation function
- Remote controller for Total Heat Exchanger is equipped in unit as standard part

LINE UP OVERVIEW

FEATURES COMPARISON

Model			4-WAY CASSETTE TYPE	4-WAY CASSETTE COMPACT TYPE	2-WAY CASSETTE TYPE	1-WAY CASSETTE TYPE	HIGH/MEDIUM/ LOW ESP TYPE	SLIM TYPE	COMPACT TYPE (AC)	COMPACT TYPE (DC)	FLOOR CONCEALED TYPE	FLOOR/CEILING CONVERTIBLE TYPE	CEILING SUSPENDED TYPE	WALL MOUNTED TYPE	
			RCI-FSKDNQ	RCIM-FSN4	RCD-FSN3	RCS-FSN	RPIH-HNAUNQ RPIM-HNAUNQ RPIL-HNAUNQ	RPIZ-FSNQS/P	RPIZ-HNATNQ	RPIZ-HNDTSQ	RPFI-FSNQ	RPFC-FSNQ	RPC-FSN3	RPK-FSNQS	RPK-FSN4M
COMFORT	Temperature Setting Rate		0.5°C/1.0°C/1.0°F	0.5°C/1.0°C/1.0°F	0.5°C/1.0°C/1.0°F	0.5°C/1.0°C/1.0°F	1.0°C/1.0°F	1.0°C/1.0°F	1.0°C/1.0°F	1.0°C/1.0°F	1.0°C/1.0°F	1.0°C/1.0°F	0.5°C/1.0°C/1.0°F	1.0°C/1.0°F	0.5°C/1.0°C/1.0°F
	Indoor Fan Speed		4 taps	4 taps	4 taps	4 taps	3 taps	3 taps	3 taps	6 taps	3 taps	3 taps	4 taps	3 taps	4 taps
	Louver Direction		7 (*4)	7 (*4)	7 (*4)	7 (*5)	-	-	-	-	-	7 (*5)	7 (*5)	7 (*5)	7 (*5)
	Individual Louver Setting		●	●	●	-	-	-	-	-	-	-	-	-	-
	Auto Louver Setting		●	●	●	●	-	-	-	-	-	●	●	●	●
	Cold Draft Prevention Availability (*1)		●	●	●	●	●	●	●	●	●	●	●	●	●
	Dry mode Availability		●	●	●	●	●	●	●	●	●	●	●	●	●
POWER-SAVING (*2)	Power Saving with Motion Sensor		●	●	●	●	-	-	-	-	-	-	●	-	-
	Outdoor Unit capacity control	Peak cut control	●	●	●	●	-	-	-	-	-	-	●	-	●
		moderate control	●	●	●	●	-	-	-	-	-	-	●	-	●
	Indoor Unit Rotation Control	Indoor Unit Address	●	●	●	●	-	-	-	-	-	-	●	-	●
		Indoor Air Temperature difference	●	●	●	●	-	-	-	-	-	-	●	-	●
	Automatic Fan Operation		●	●	●	●	●	●	●	●	●	●	●	●	●
MENU (*2)	Quick Function		●	●	●	●	-	-	-	-	-	-	●	-	●
	Comfort setting	Control Cool Air	●	●	●	●	-	-	-	-	-	-	●	-	●
	Daylight Saving Time		●	●	●	●	●	●	●	●	●	●	●	●	●
	Power Consumption visualization		●	●	●	●	-	-	-	-	-	-	●	-	●
	Weekly Schedule Setting		●	●	●	●	●	●	●	●	●	●	●	●	●
	Power-Saving Setting		●	●	●	●	-	-	-	-	-	-	●	-	●
MAINTENANCE	Dirty Filter Notice Availability		●	●	●	●	●	●	●	●	●	●	●	●	●
	Check Menu	Sensor Condition Check (*9)	●	●	●	●	●	●	●	●	●	●	●	●	●
		Model Display (*2)	-	-	●	●	-	-	-	-	-	-	●	-	●
		Indoor/Outdoor PCB Check (*2)	●	●	●	●	●	●	●	●	●	●	●	●	●
		Alarm History Display (*9)	●	●	●	●	●	●	●	●	●	●	●	●	●
OPTIONAL ACCESSORY	Colored Decoration Panel availability		-	-	● (*6)	● (*6)	-	-	-	-	-	-	-	-	-
	Motion Sensor		PS-MSK2	SOR-NEC	SOR-NED	SOR-NES	-	-	-	-	-	-	SOR-NEP	-	-
	Receiver Kit for wireless remote controller (*10)		HR4A10NEWQ PC-ALH3	PC-ALHC1	PC-ALHD1	PC-ALHS1	PC-RLH11 PC-ALHZ1	PC-RLH11 PC-ALHZ1	PC-RLH11 PC-ALHZ1	PC-RLH11 PC-ALHZ1	PC-RLH11 PC-ALHZ1	PC-RLH11 PC-ALHZ1	PC-ALHP1	PC-RLH11 PC-ALHZ1	PC-ALHZ1
	Drain-up mechanism availability		● (*3)	● (*3)	● (*3)	● (*3)	DUPI-131Q DUPI-361Q	● (*3)	● (*3)	● (*3)	-	-	DUPC-63K1 DUPC-71K1 DUPC-160K1	-	● (*8)
	Fresh air intake design		● (*7)	● (*7)	● (*7)	● (*7)	-	-	-	-	-	-	● (*7)	-	-
	Air filter		● (*8)	● (*8)	● (*8)	● (*8)	KW-PP7/8/9/10Q	-	KW-PP5Q KW-PP6Q	KW-PP5Q KW-PP6Q	● (*8)	● (*8)	● (*8)	● (*8)	● (*8)
	Strainer kit		-	-	-	-	-	-	-	-	-	-	-	MSF-NP63A1	MSF-NP63A1 MSF-NP112A1

(*1) This function is utilized to prevent cold discharged air at start-up of heating operation, after defrosting operation, etc. The fan speed automatically switches from Slow to Low and then to the set fan speed. The fan operation might be stopped for up to 2 minutes. At this time the louver is fixed horizontally.

(*2) Advanced wired remote controller PC-ARF1 needs to be connected.

(*3) included as standard equipment

(*4) 7 steps are available by individual louver setting. 5 steps only in the operation of Cooling or Dry.

(*5) 5 steps only in the operation of Cooling or Dry.

(*6) 3 colors available except white (Beige, Grey and Black)

(*7) Optional parts: Duct Adapter is available. please consult your distributor.

(*8) Please consult your distributor for the availability.

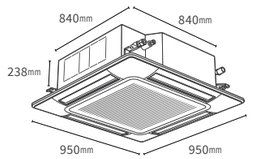
(*9) PC-ARF1 or HCWA10NEGQ needs to be connected.

(*10) Please check page for more details about Receiver Kit.

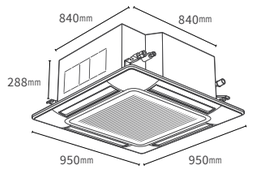
4-WAY CASSETTE TYPE

DIMENSIONS

RCI-1.0 FSKDNQ	20kg
RCI-1.5~2.0 FSKDNQ	21kg
RCI-2.5 FSKDNQ	22kg
Decoration panel	6.5kg



RCI-3.0~6.0 FSKDNQ	26kg
Decoration panel	6.5kg



FEATURES AND BENEFITS

Adaptability

1) Wide Detection area of motion sensor (PS-MSK2)

(Optional part) to achieve better energy-saving

2) Control air flow with individual four-way louvers

More comfortable air conditioning can be achieved along each zone requirement

Design Flexibility

Suitable for high ceiling space

Thanks to cooling air blow up to 5.5m down

Model			RCI-1.0FSKDNQ	RCI-1.5FSKDNQ	RCI-2.0FSKDNQ	RCI-2.5FSKDNQ	RCI-3.0FSKDNQ	RCI-4.0FSKDNQ	RCI-5.0FSKDNQ	RCI-6.0FSKDNQ
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz] [220V/60Hz]							
Nominal Capacity	Cooling	kW	2.8	4.0	5.6	7.1	8.0	11.2	14.0	16.0
	Heating	kW	3.2	4.8	6.3	8.5	9.0	12.5	16.0	18.0
Sound Pressure Level	(Hi2/Hi/Me/Lo)	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
Outer Dimension	(H×W×D)	mm	238×840×840	238×840×840	238×840×840	238×840×840	288×840×840	288×840×840	288×840×840	288×840×840
Net Weight		kg	20	21	21	22	26	26	26	26
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi2/Hi/Me/Lo)	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
Connections			Flare-Nut Connection (with flare Nuts)							
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas Line	mm	Φ12.7	Φ12.7	Φ12.7	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.21	0.21	0.21	0.21	0.25	0.25	0.25	0.25

Adaptable Panel Model			Included (without Motion Sensor)
Color			Neutral White
Outer Dimension	(H×W×D)	mm	40×950×950
Net Weight		kg	6.5
Approximate Packing Volume		m^3	0.10

NOTE:

1. The cooling and heating capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.

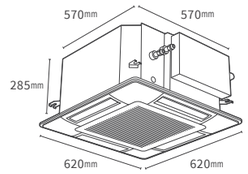
Cooling Operation Conditions		Heating Operation Conditions	
Indoor Air Inlet Temperature:	27.0°C DB (80.0°F DB) 19.0°C WB (66.2°F WB)	Indoor Air Inlet Temperature:	20.0°C DB (68.0°F DB)
Outdoor Air Inlet Temperature:	35.0°C DB (95.0°F DB)	Outdoor Air Inlet Temperature:	7.0°C DB (45.0°F DB) 6.0°C WB (43.0°F WB)
Piping Length: 7.5 metre		Piping Length: 7.5 metre	
Piping Lift: 0 metre		Piping Lift: 0 metre	

2. The sound pressure level is based on following conditions.
   1.5 metre Beneath the Unit.
   The data in the table above was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
3. Decoration panel is included.

4-WAY CASSETTE COMPACT TYPE

DIMENSIONS

RCIM-0.6~1.5 FSN4	16kg
RCIM-2.0~2.5 FSN4	17kg
P-AP56NAM	3kg



FEATURES AND BENEFITS

Adaptability

1) Wide Detection area of motion sensor (SOR-NEC)

(Optional part) to achieve better energy-saving

2) Top-class silent operation

As quiet as gentle breeze

Design Flexibility

Compact

Adaptation to 600×600mm ceilings

Model			RCIM-0.8FSN4	RCIM-1.0FSN4	RCIM-1.5FSN4	RCIM-2.0FSN4	RCIM-2.5FSN4
Indoor Unit Power Supply			AC 1Φ, [230V/50Hz] [220-240V/50Hz] [220V/60Hz]				
Nominal Capacity	Cooling	kW	2.2	2.8	4.0	5.6	7.1
	Heating	kW	2.5	3.2	4.8	6.3	8.5
Sound Pressure Level	(Hi2/Hi/Me/Lo)	dB(A)	36/33/29/24.5	38/34/30/24.5	41/37/33/27.5	45/39/35/31	47/43/39/35
Outer Dimension	(H×W×D)	mm	285×570×570	285×570×570	285×570×570	285×570×570	285×570×570
Net Weight		kg	16	16	16	17	17
Refrigerant			R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi2/Hi/Me/Lo)	m^3/min	11/9.5/8/6	12/10/8.5/6	13/11/9.5/7	15/12/10/8	16/14/12/10
Connections			Flare-Nut Connection (with Flare Nuts)				
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.52
	Gas Line	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.13	0.13	0.13	0.13	0.13

Adaptable Panel Model			P-AP56NAM (without Motion Sensor)
Color			Neutral White
Outer Dimension	(H×W×D)	mm	30×620×620
Net Weight		kg	3.0
Approximate Packing Volume		m^3	0.04

NOTE:

1. The cooling and heating capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.

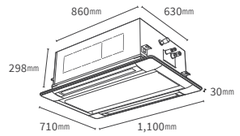
Cooling Operation Conditions		Heating Operation Conditions	
Indoor Air Inlet Temperature:	27.0°C DB (80.0°F DB) 19.0°C WB (66.2°F WB)	Indoor Air Inlet Temperature:	20.0°C DB (68.0°F DB)
Outdoor Air Inlet Temperature:	35.0°C DB (95.0°F DB)	Outdoor Air Inlet Temperature:	7.0°C DB (45.0°F DB) 6.0°C WB (43.0°F WB)
Piping Length: 7.5 metre		Piping Length: 7.5 metre	
Piping Lift: 0 metre		Piping Lift: 0 metre	

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

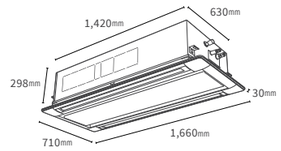
2-WAY CASSETTE TYPE

DIMENSIONS

RCD-0.8~1.0 FSN3	23kg
RCD-1.5~3.0 FSN3	25kg
P-AP90DNA	7.5kg



RCD-4.0~6.0 FSN3	39kg
P-AP160DNA	10.5kg



FEATURES AND BENEFITS

Adaptability

1) Wide Detection area of motion sensor (SOR-NED)

(Optional part) to achieve better energy-saving

2) Control air flow with individual louvers

Suitable environment can be achieved for each person

Design Flexibility

Suitable for high ceiling space

Thanks to 4.6m cooling air blow down

Model			RCD-0.8FSN3	RCD-1.0FSN3	RCD-1.5FSN3	RCD-2.0FSN3	RCD-2.5FSN3	RCD-3.0FSN3	RCD-4.0FSN3	RCD-5.0FSN3	RCD-6.0FSN3
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz] [220V/60Hz]								
Nominal Capacity	Cooling	kW	2.2	2.8	4.0	5.6	7.1	8.0	11.2	14.0	16.0
	Heating	kW	2.5	3.2	4.8	6.3	8.5	9.0	12.5	16.0	18.0
Sound Pressure Level	(Hi2/Hi/Me/Lo)	dB(A)	30/29/28/27	31/29/28/27	37/34/31/30	39/36/33/30	42/39/36/33	45/42/38/33	43/40/37/34	47/44/41/35	48/45/42/39
Outer Dimension	(H×W×D)	mm	298×860×630	298×860×630	298×860×630	298×860×630	298×860×630	298×860×630	298×1,420×630	298×1,420×630	298×1,420×630
Net Weight		kg	23	23	25	25	25	25	39	39	39
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi2/Hi/Me/Lo)	m^3/min	10/9/7.5/6.5	11/9.5/8.5/7	15/13/11.5/10	16.5/14.5 /12.5/10.5	18.5/16.5 /14.5/12.5	21/18.5/16 /12.5	30/26.5/23/20	35/31/27/21	37/32.5/28.5 /24
Connections			Flare-Nut Connection (with Flare Nuts)								
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas Line	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.24	0.24	0.24	0.24	0.24	0.24	0.36	0.36	0.36

Adaptable Panel Model			P-AP90DNA (for RCD-[0.8-3.0]FSN3)	P-AP160DNA (for RCD-[4.0-6.0]FSN3)
Color			Neutral White	Neutral White
Outer Dimension	(H×W×D)	mm	30×1,100×710	30×1,660×710
Net Weight		kg	7.5	10.5
Approximate Packing Volume		m^3	0.13	0.20

NOTE:
1. The cooling and heating capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB (80.0°F DB)
19.0°C WB (66.2°F WB)
Outdoor Air Inlet Temperature: 35.0°C DB (95.0°F DB)
Piping Length: 7.5 metre
Piping Lift: 0 metre

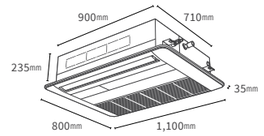
Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB (68.0°F DB)
Outdoor Air Inlet Temperature: 7.0°C DB (45.0°F DB)
6.0°C WB (43.0°F WB)
Piping Length: 7.5 metre
Piping Lift: 0 metre

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

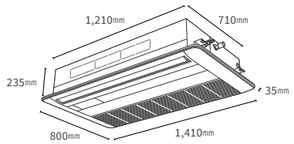
1-WAY CASSETTE TYPE

DIMENSIONS

RCS-0.8~1.0 FSN	25kg
RCS-1.5~2.0 FSN	26kg
P-AP36CNA	4.5kg
P-AP56CNA	4.5kg



RCS-2.5~3.0 FSN	33kg
P-AP80CNA	6kg



FEATURES AND BENEFITS

Adaptability

1) Wide Detection area of motion sensor (SOR-NES)

(Optional part) to achieve better energy-saving

Adaptability

2) Quiet operation

New design in fan inlet and fan resulted in the low sound pressure

Design Flexibility

3 installation types selectable

Corner type (standard)

Clipped ceiling (one-way) type

Clipped ceiling (two-way) type

Model			RCS-0.8FSN	RCS-1.0FSN	RCS-1.5FSN	RCS-2.0FSN	RCS-2.5FSN	RCS-3.0FSN
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz] [230V/50Hz] [220V/60Hz]					
Nominal Capacity	Cooling	kW	2.2	2.8	4.0	5.6	7.1	8.0
	Heating	kW	2.5	3.2	4.8	6.3	8.5	9.0
Sound Pressure Level	(Hi2/Hi/Me/Lo)	dB(A)	34/32/29/27	36/34/31/28	40/37/33/31	42/38/35/31	43/39/36/32	43/40/37/33
Outer Dimension	(H×W×D)	mm	235×900×710	235×900×710	235×900×710	235×900×710	235×1,210×710	235×1,210×710
Net Weight		kg	25	25	26	26	33	33
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi2/Hi/Me/Lo)	m^3/min	8.5/7.5/6.5/6	9.5/8.5/7.5/6.5	13/11.5/10/8.5	14.5/13/11/9.5	18.5/16.5/14.5/12.5	20/17.5/15.5/13
Connections			Flare-Nut Connection (with Flare Nuts)					
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.52	Φ9.52
	Gas Line	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.88	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.25	0.25	0.25	0.25	0.32	0.32

Adaptable Panel Model			P-AP36CNA (for RCS-[0.8-1.0]FSN)	P-AP56CNA (for RCS-[1.5-2.0]FSN)	P-AP80CNA (for RCS-[2.5-3.0]FSN)
Color			Neutral White	Neutral White	Neutral White
Outer Dimension	(H×W×D)	mm	35×1,100×800	35×1,100×800	35×1,410×800
Net Weight		kg	4.5	4.5	6.0
Approximate Packing Volume		m^3	0.098	0.098	0.125

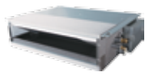
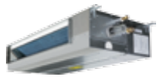
NOTE:
1. The cooling and heating capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB (80.0°F DB)
19.0°C WB (66.2°F WB)
Outdoor Air Inlet Temperature: 35.0°C DB (95.0°F DB)
Piping Length: 7.5 metre
Piping Lift: 0 metre

Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB (68.0°F DB)
Outdoor Air Inlet Temperature: 7.0°C DB (45.0°F DB)
6.0°C WB (43.0°F WB)
Piping Length: 7.5 metre
Piping Lift: 0 metre

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

DUCTED

Type			HIGH ESP TYPE	MEDIUM ESP TYPE	LOW ESP TYPE	SLIM TYPE	COMPACT TYPE (AC MOTOR/DC MOTOR)
Model			RPIH-(3.0~6.0)HNAUNQ	RPIM-(0.8~2.5)HNAUNQ	RPIL-(0.8~6.0)HNAUNQ	RPIZ-(0.8~1.5)FSNQS/P	RPIZ-(0.8~2.5)HNATNQ RPIZ-(0.8~2.5)HNDTSQ
Capacity	Cooling	kW	8.4–16.0	2.2–7.1	2.2–16.0	2.2–4.3	2.2–7.1
	Heating	kW	9.6–18.0	2.8–8.5	2.8–18.0	2.8–4.9	2.5–8.0
Dimensions	Height	mm	300	270	270–300	192	192
	Width	mm	1,175–1,475	725–975	725-1,475	700	700–1,180
	Depth	mm	800	720	720-800	602	447
Net Weight		kg	45–54	24–32	24–54	21	17–28

FEATURES AND BENEFITS

High ESP type

- High ESP (90/120Pa for 3.0-6.0HP class)
- Space saving design thanks to a height of only 300mm (3.0-6.0HP class)

Medium ESP type

- 2 steps of medium ESP (50/80Pa for 0.8-2.5HP class)
- Space saving design thanks to a height of only 270mm (0.8-2.5HP class)

Low ESP type

- Low ESP (30Pa for 0.8-2.5HP class, 60Pa for 3.0-6.0HP class)
- Space saving design thanks to a height of only 270mm (0.8-2.5HP class) or 350mm (3.0-6.0HP class)

Slim type

- Ideal for narrow ceiling voids installation thanks to low height up to 192mm & width just 700mm
- Drain-pump with 900mm lift as standard optional part
- Quiet operation level (as low as 22dB(A))

Compact type

- Ideal for installation over the closet or windows thanks to the up to the compactness with 192mm height
- Drain-pump with 900mm lift as standard optional part
- Quiet operation level (as low as 20dB(A))
- Fan air flow rate up to 6 taps (DC motor model only)

Cooling & Heating

HIGH ESP (EXTERNAL STATIC PRESSURE) TYPE

Model			RPIH-3.0HNAUNQ	RPIH-3.3HNAUNQ	RPIH-4.0HNAUNQ	RPIH-5.0HNAUNQ	RPIH-6.0HNAUNQ
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz]				AC 1Φ, [220-230V/50Hz]
Nominal Capacity	Cooling	kW	8.4	9.0	11.2	14.2	16.0
	Heating	kW	9.6	10.0	13.0	16.3	18.0
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	42/39/34	42/39/34	43/39/34	44/41/37	48/42/37
Outer Dimension	(H×W×D)	mm	300×1,175×800	300×1,175×800	300×1,175×800	300×1,475×800	300×1,475×800
Net Weight		kg	45	45	45	53	54
Refrigerant			R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m^3/min	30/28/23	30/28/23	30/28/23	35.5/32/27	41/33/26
External Static Pressure (*3)		Pa	120(90)	120(90)	120(90)	120(90)	120(90)
Connections			Flare-Nut Connection (with Flare Nuts)				
Refrigerant Piping Diameter	Liquid Line	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas Line	mm	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.40	0.40	0.40	0.49	0.49

NOTE:

1. The cooling capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.

Cooling Operation Conditions		Heating Operation Conditions	
Indoor Air Inlet Temperature:	27.0°C DB (80.0°F DB) 19.0°C WB (66.2°F WB)	Indoor Air Inlet Temperature:	20.0°C DB (68.0°F DB)
Outdoor Air Inlet Temperature:	35.0°C DB (95.0°F DB)	Outdoor Air Inlet Temperature:	7.0°C DB (45.0°F DB) 6.0°C WB (43.0°F WB)
Piping Length: 7.5 metre		Piping Length: 7.5 metre	
Piping Lift: 0 metre		Piping Lift: 0 metre	

2. The sound pressure level is based on following conditions.
   1.4 metre Beneath the unit.
   With Discharge Duct (2.0 metre) and Return Duct (1.0 metre).
   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 1~2dB(A).)
   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 (*3) indicates "Standard Pressure Setting values when a filter is not used.

MEDIUM ESP (EXTERNAL STATIC PRESSURE) TYPE

Model			RPIM-0.8HNAUNQ	RPIM-1.0HNAUNQ	RPIM-1.3HNAUNQ	RPIM-1.5HNAUNQ	RPIM-1.8HNAUNQ
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz]				
Nominal Capacity	Cooling	kW	2.2	2.8	3.6	4.3	5.0
	Heating	kW	2.8	3.3	4.2	4.9	5.6
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	32/27/24	32/27/24	35/33/28	35/33/28	35.5/33/28
Outer Dimension	(H×W×D)	mm	270×725×720	270×725×720	270×725×720	270×725×720	270×975×720
Net Weight		kg	24	24	25	25	31
Refrigerant			R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m^3/min	10/8/7	10/8/7	12/11/9	12/11/9	16/14/11.5
External Static Pressure (*3)		Pa	50(80)	50(80)	50(80)	50(80)	50(80)
Connections			Flare-Nut Connection (with Flare Nuts)				
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	Gas Line	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.22	0.22	0.22	0.22	0.28

Model			RPIM-2.0HNAUNQ	RPIM-2.3HNAUNQ	RPIM-2.5HNAUNQ
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz]		
Nominal Capacity	Cooling	kW	5.6	6.3	7.1
	Heating	kW	6.5	7.5	8.5
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	35.5/33/28	39/34/26	39/34/26
Outer Dimension	(H×W×D)	mm	270×975×720	270×975×720	270×975×720
Net Weight		kg	31	32	32
Refrigerant			R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m^3/min	16/14/11.5	20/16/11.5	20/16/11.5
External Static Pressure (*3)		Pa	50(80)	50(80)	50(80)
Connections			Flare-Nut Connection (with Flare Nuts)		
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ9.52	Φ9.52
	Gas Line	mm	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP25	VP25	VP25
Approximate Packing Volume		m^3	0.28	0.28	0.28

NOTE:
1. The cooling capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB (80.0°F DB)
19.0°C WB (66.2°F WB)
Outdoor Air Inlet Temperature: 35.0°C DB (95.0°F DB)
Piping Length: 7.5 metre
Piping Lift: 0 metre

Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB (68.0°F DB)
Outdoor Air Inlet Temperature: 7.0°C DB (45.0°F DB)
6.0°C WB (43.0°F WB)
Piping Length: 7.5 metre
Piping Lift: 0 metre

2. The sound pressure level is based on following conditions.
1.4 metre Beneath the unit.
With Discharge Duct (2.0 metre) and Return Duct (1.0 metre).
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 1~2dB(A).)
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 (*3) indicates "Standard Pressure Setting values when a filter is not used.

LOW ESP (EXTERNAL STATIC PRESSURE) TYPE

Model			RPIL-0.8HNAUNQ	RPIL-1.0HNAUNQ	RPIL-1.3HNAUNQ	RPIL-1.5HNAUNQ	RPIL-1.8HNAUNQ	RPIL-2.0HNAUNQ	RPIL-2.3HNAUNQ
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz]						
Nominal Capacity	Cooling	kW	2.2	2.8	3.6	4.3	5.0	5.6	6.3
	Heating	kW	2.8	3.3	4.2	4.9	5.6	6.5	7.5
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	28/25/22	28/25/22	34/32/30	34/32/30	34/32/29	34/32/29	36.5/30.5/25
Outer Dimension	(H×W×D)	mm	270×725×720	270×725×720	270×725×720	270×725×720	270×975×720	270×975×720	270×975×720
Net Weight		kg	24	24	25	25	31	31	32
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m^3/min	9/8/7	9/8/7	13/11/9	13/11/9	15/14/12	15/14/12	21/17/11
External Static Pressure (*3)		Pa	30	30	30	30	30	30	30
Connections			Flare-Nut Connection (with Flare Nuts)						
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.52
	Gas Line	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.22	0.22	0.22	0.22	0.28	0.28	0.28

Model			RPIL-2.5HNAUNQ	RPIL-3.0HNAUNQ	RPIL-3.3HNAUNQ	RPIL-4.0HNAUNQ	RPIL-5.0HNAUNQ	RPIL-6.0HNAUNQ
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz]					
Nominal Capacity	Cooling	kW	7.1	8.4	9.0	11.2	14.2	16.0
	Heating	kW	8.5	9.6	10.0	13.0	16.3	18.0
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	36.5/30.5/25	38/30/24	38/30/24	38/35/31	44/39/35	46/41/35
Outer Dimension	(H×W×D)	mm	270×975×720	300×1,175×800	300×1,175×800	300×1,175×800	300×1,475×800	300×1,475×800
Net Weight		kg	32	45	45	45	53	54
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m^3/min	21/17/11	29/25/21	29/25/21	29/25/21	36/31/26	42/34/26
External Static Pressure (*3)		Pa	30	60	60	60	60	60
Connections			Flare-Nut Connection (with Flare Nuts)					
Refrigerant Piping Diameter	Liquid Line	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas Line	mm	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.28	0.40	0.40	0.40	0.49	0.49

NOTE:
1. The cooling capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB (80.0°F DB)
19.0°C WB (66.2°F WB)
Outdoor Air Inlet Temperature: 35.0°C DB (95.0°F DB)
Piping Length: 7.5 metre
Piping Lift: 0 metre

Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB (68.0°F DB)
Outdoor Air Inlet Temperature: 7.0°C DB (45.0°F DB)
6.0°C WB (43.0°F WB)
Piping Length: 7.5 metre
Piping Lift: 0 metre

2. The sound pressure level is based on following conditions.
1.4 metre Beneath the unit.
With Discharge Duct (2.0 metre) and Return Duct (1.0 metre).
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 1~2dB(A).)
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 (*3) indicates "Standard Pressure Setting values when a filter is not used.

SLIM TYPE

Model			RPIZ-0.8FSNQS/P	RPIZ-1.0FSNQS/P	RPIZ-1.3FSNQS/P	RPIZ-1.5FSNQS/P
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz]			
Nominal Capacity	Cooling	kW	2.2	2.8	3.6	4.3
	Heating	kW	2.8	3.3	4.2	4.9
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	28/25/22	28/25/22	32/30/28	32/30/28
Outer Dimension	(H×W×D)	mm	192×700×602	192×700×602	192×700×602	192×700×602
Net Weight		kg	21	21	21	21
Refrigerant			R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m^3/min	8/7/6	8/7/6	10/8/7	10/8/7
External Static Pressure (*3)	Standard (min/max)	Pa	10(10/30)	10(10/30)	10(10/30)	10(10/30)
Connections			Flare-Nut Connection (with Flare Nuts)			
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	Gas Line	mm	Φ12.70	Φ12.70	Φ12.70	Φ12.70
Condensate Drain			VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.15	0.15	0.15	0.15

NOTE:
1. The cooling capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.

Cooling Operation Conditions		Heating Operation Conditions	
Indoor Air Inlet Temperature:	27.0°C DB (80.0°F DB) 19.0°C WB (66.2°F WB)	Indoor Air Inlet Temperature:	20.0°C DB (68.0°F DB)
Outdoor Air Inlet Temperature:	35.0°C DB (95.0°F DB)	Outdoor Air Inlet Temperature:	7.0°C DB (45.0°F DB) 6.0°C WB (43.0°F WB)
Piping Length: 7.5 metre		Piping Length: 7.5 metre	
Piping Lift: 0 metre		Piping Lift: 0 metre	

2. The sound pressure level is based on following conditions.
   1.4 metre Beneath the unit.
   With Discharge Duct (2.0 metre) and Return Duct (1.0 metre).
   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 1~2dB(A).)
   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 (*3) indicates "Standard Pressure Setting values when a filter is not used.

COMPACT TYPE (BOTH AC MOTOR TYPE AND DC MOTOR TYPE AVAILABLE)

Model (AC MOTOR)			RPIZ-0.8HNATNQ	RPIZ-1.0HNATNQ	RPIZ-1.3HNATNQ	RPIZ-1.5HNATNQ	RPIZ-1.8HNATNQ	RPIZ-2.0HNATNQ	RPIZ-2.3HNATNQ	RPIZ-2.5HNATNQ
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz]							
Nominal Capacity	Cooling	kW	2.2	2.8	3.6	4.0	5.0	5.6	6.3	7.1
	Heating	kW	2.5	3.2	4.0	4.5	5.6	6.3	7.1	8.0
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	30/23/20	30/23/20	34/25/22	32.5/26/23	34/26/25	34/26/25	37/29/27	37/29/27
Outer Dimension	(H×W×D)	mm	192×700×447	192×700×447	192×700×447	192×910×447	192×1,180×447	192×1,180×447	192×1,180×447	192×1,180×447
Net Weight		kg	17	17	17	21	27	27	28	28
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m^3/min	9.5/6.5/5.5	9.5/6.5/5.5	9.5/6.5/5.5	10/7/6	15/10/9	15/10/9	17/10/9	17/10/9
External Static Pressure (*3)		Pa	10(30)	10(30)	10(30)	10(30)	10(30)	10(30)	10(30)	10(30)
Connections			Flare-Nut Connection (with Flare Nuts)							
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.52	Φ9.52
	Gas Line	mm	Φ12.70	Φ12.70	Φ12.70	Φ12.70	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.142	0.142	0.142	0.15	0.18	0.18	0.18	0.18

SET FREE mini HNRQ & HNSKQ Series

Model (DC MOTOR)			RPIZ-0.8HNDTSQ	RPIZ-1.0HNDTSQ	RPIZ-1.3HNDTSQ	RPIZ-1.5HNDTSQ	RPIZ-1.8HNDTSQ	RPIZ-2.0HNDTSQ	RPIZ-2.3HNDTSQ	RPIZ-2.5HNDTSQ
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz] [220V/60Hz]							
Nominal Capacity	Cooling	kW	2.2	2.8	3.6	4.0	5.0	5.6	6.3	7.1
	Heating	kW	2.5	3.2	4.0	4.5	5.6	6.3	7.1	8.0
Sound Pressure Level	(6 taps)	dB(A)	33/31/28/ 25/23.5/22.5	33/31/28/ 25/23.5/22.5	33/31/28/ 25/23.5/22.5	31/30/28/ 25/22/20	36/33.5/31/ 28/24.5/22.5	36/33.5/31/ 28/24.5/22.5	36/33.5/31/ 28/24.5/22.5	36/33.5/31/ 28/24.5/22.5
Outer Dimension	(H×W×D)	mm	192×700×447	192×700×447	192×700×447	192×910×447	192×1,180×447	192×1,180×447	192×1,180×447	192×1,180×447
Net Weight		kg	17	17	17	20	24	24	24	24
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(6 taps)	m^3/min	8.5/8/7/6/5.5/5	8.5/8/7/6/5.5/5	8.5/8/7/6/5.5/5	10/9/8/7.5/ 6.5/6	16.5/15/13/ 12/10/9	16.5/15/13/ 12/10/9	16.5/15/13/ 12/10/9	16.5/15/13/ 12/10/9
External Static Pressure (*3)		Pa	10(0-10-30)	10(0-10-30)	10(0-10-30)	10(0-10-30)	10(0-10-50)	10(0-10-50)	10(0-10-50)	10(0-10-50)
Connections			Flare-Nut Connection (with Flare Nuts)							
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.52	Φ9.52
	Gas Line	mm	Φ12.70	Φ12.70	Φ12.70	Φ12.70	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.142	0.142	0.142	0.15	0.18	0.18	0.18	0.18

DUCTED

NOTE:
1. The cooling capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.

Cooling Operation Conditions		Heating Operation Conditions	
Indoor Air Inlet Temperature:	27.0°C DB (80.0°F DB) 19.0°C WB (66.2°F WB)	Indoor Air Inlet Temperature:	20.0°C DB (68.0°F DB)
Outdoor Air Inlet Temperature:	35.0°C DB (95.0°F DB)	Outdoor Air Inlet Temperature:	7.0°C DB (45.0°F DB) 6.0°C WB (43.0°F WB)
Piping Length: 7.5 metre		Piping Length: 7.5 metre	
Piping Lift: 0 metre		Piping Lift: 0 metre	

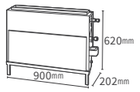
2. The sound pressure level is based on following conditions.
   1.4 metre Beneath the unit.
   With Discharge Duct (2.0 metre) and Return Duct (1.0 metre).
   Voltage of the power source for the indoor fan motor is 220V.
   (In case of the power source of 240V, the sound pressure level increases by about 1~2dB(A).)
   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 (*3) indicates "Standard Pressure Setting values when a filter is not used.

FLOOR CONCEALED TYPE

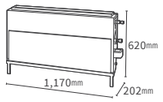
DIMENSIONS

RPFI-1.0FSNQ 25kg

RPFI-1.5FSNQ 26kg



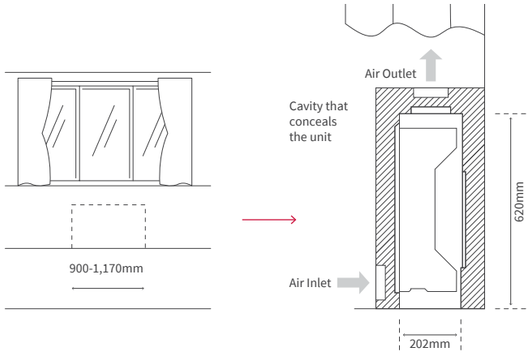
RPFI-2.0~2.5FSNQ 34kg



FEATURES AND BENEFITS

Design Flexibility

Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible.
Its low height (only 620mm) enables the unit to fit perfectly beneath a window.
Requires little installation space thanks to its slim 202mm depth.



Model			RPFI-1.0FSNQ	RPFI-1.5FSNQ	RPFI-2.0FSNQ	RPFI-2.5FSNQ
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz]			
Nominal Capacity	Cooling	kW	2.8	4.3	5.6	7.1
	Heating	kW	3.3	4.9	6.5	8.5
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	37/34/31	40/38/35	42/38/36	45/43/40
Outer Dimension	(H×W×D)	mm	620×900×202	620×900×202	620×1,170×202	620×1,170×202
Net Weight		kg	25	26	34	34
Refrigerant			R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m^3/min	8/7/6	10/8/7	14.5/12.5/10.5	16/14/12
Connections			Flare-Nut Connection (with Flare Nuts)			
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ9.52
	Gas Line	mm	Φ12.70	Φ12.70	Φ15.88	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.19	0.19	0.23	0.23

NOTE:
1. The cooling and heating capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.
   Cooling Operation Conditions
   Indoor Air Inlet Temperature: 27.0°C DB (80.0°F DB)
   19.0°C WB (66.2°F WB)
   Outdoor Air Inlet Temperature: 35.0°C DB (95.0°F DB)
   Piping Length: 7.5 metre
   Piping Lift: 0 metre
   Heating Operation Conditions
   Indoor Air Inlet Temperature: 20.0°C DB (68.0°F DB)
   Outdoor Air Inlet Temperature: 7.0°C DB (45.0°F DB)
   6.0°C WB (43.0°F WB)
   Piping Length: 7.5 metre
   Piping Lift: 0 metre
2. The sound pressure level is based on following conditions.
   1.0 metre from the unit.
   1.0 metre from inlet grille.
   The data in the table above was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

FLOOR/CEILING CONVERTIBLE TYPE

DIMENSIONS

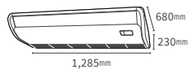
RPFC-1.8~2.0FSNQ 31kg

RPFC-2.3~2.5FSNQ 32kg

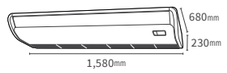
RPFC-3.0FSNQ 39kg

RPFC-3.3FSNQ 40kg

RPFC-4.0FSNQ 41kg



RPFC-5.0FSNQ 47kg



FEATURES AND BENEFITS

Adapts to both floor and ceiling

〖CEILING USE〗

Supplies air to a wide area.
High ceiling use capability.

〖FLOOR USE〗

Smaller footprint: Only 230mm in depth.
Suitable for installation beneath a window thanks to the 680mm height.

New air-intake design

Equipped with air-intakes, the unit connects with ventilations such as a Total Heat Exchanger using a duct, providing better interior air quality.

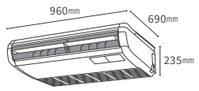
Model			RPFC-1.8FSNQ	RPFC-2.0FSNQ	RPFC-2.3FSNQ	RPFC-2.5FSNQ	RPFC-3.0FSNQ	RPFC-3.3FSNQ	RPFC-4.0FSNQ	RPFC-5.0FSNQ
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz] [220V/60Hz]							
Nominal Capacity	Cooling	kW	5.0	5.6	6.3	7.1	8.4	9.0	11.2	14.2
	Heating	kW	5.6	6.5	7.5	8.5	9.6	10.0	13.0	16.3
Sound Pressure Level	Ceiling Mode	dB(A)	39/35/30	39/35/30	45/41/37	45/41/37	43/39/34	45/40/36	51/46/40	50/46/42
	Floor Mode	dB(A)	43/38/35	43/38/35	48/44/40	48/44/40	46/41/37	48/43/39	54/49/43	55/50/46
Outer Dimension	(H×W×D)	mm	230×990×680	230×990×680	230×990×680	230×990×680	230×1,285×680	230×1,285×680	230×1,285×680	230×1,580×680
Net Weight		kg	31	31	32	32	39	40	41	47
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m^3/min	13/11/9	13/11/9	16.1/14/11.3	16.1/14/11.3	18.2/15.2/12.2	19.4/16.3/13.3	24.8/20.5/16.3	33/28/23
Connections			Flare-Nut Connection (with Flare Nuts)							
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas Line	mm	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Volume		m^3	0.31	0.31	0.31	0.31	0.40	0.40	0.40	0.48

NOTE:
1. The cooling and heating capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.
   Cooling Operation Conditions
   Indoor Air Inlet Temperature: 27.0°C DB (80.0°F DB)
   19.0°C WB (66.2°F WB)
   Outdoor Air Inlet Temperature: 35.0°C DB (95.0°F DB)
   Piping Length: 7.5 metre
   Piping Lift: 0 metre
   Heating Operation Conditions
   Indoor Air Inlet Temperature: 20.0°C DB (68.0°F DB)
   Outdoor Air Inlet Temperature: 7.0°C DB (45.0°F DB)
   6.0°C WB (43.0°F WB)
   Piping Length: 7.5 metre
   Piping Lift: 0 metre
2. The sound pressure level is based on following conditions.
   1.0 metre Beneath the unit.
   1.0 metre from Discharge grille.
   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.

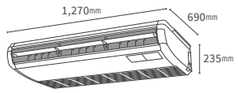
CEILING SUSPENDED TYPE

DIMENSIONS

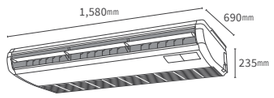
RPC-1.5 FSN3 **26kg**
RPC-2.0 FSN3 **27kg**



RPC-2.5~3.0 FSN3 **35kg**



RPC-4.0~6.0 FSN3 **41kg**



FEATURES AND BENEFITS

Adaptability

1) Wide Detection area of motion sensor (SOR-NEP)

(Optional part) to achieve better energy-saving

2) Auto louver

Soften the discomfort by temperature irregularity and cold draft

Design Flexibility

Suitable for high ceiling space

Thanks to 5.6m cooling air blow down

Model			RPC-1.5FSN3	RPC-2.0FSN3	RPC-2.5FSN3	RPC-3.0FSN3	RPC-4.0FSN3	RPC-5.0FSN3	RPC-6.0FSN3
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz] [220V/60Hz]						
Nominal Capacity	Cooling	kW	4.0	5.6	7.1	8.0	11.2	14.0	16.0
	Heating	kW	4.8	6.3	8.5	9.0	12.5	16.0	18.0
Sound Pressure Level	(Hi2/Hi/Me/Lo)	dB(A)	37/35/31/28	38/35/31/28	38/35/31/28	40/37/33/29	44/42/37/32	48/45/41/35	49/47/42/36
Color			Neutral White						
Outer Dimension	(H×W×D)	mm	235×960×690	235×960×690	235×1,270×690	235×1,270×690	235×1,580×690	235×1,580×690	235×1,580×690
Net Weight		kg	26	27	35	35	41	41	41
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi2/Hi/Me/Lo)	m^3/min	15/13/11/9	15/13/11/9	19/16.5/14/11.5	21/18.5/15.5/12.5	30/26.5/22/17	35/31/25.5/20	37/32.5/27/21
Connections			Flare-Nut Connection (with Flare Nuts)						
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas Line	mm	Φ12.7	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP20	VP20	VP20	VP20	VP20	VP20	VP20
Approximate Packing Volume		m^3	0.23	0.23	0.31	0.31	0.38	0.38	0.38

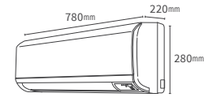
NOTE:
1. The cooling and heating capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.
   Cooling Operation Conditions
   Indoor Air Inlet Temperature: 27.0°C DB (80.0°F DB)
   19.0°C WB (66.2°F WB)
   Outdoor Air Inlet Temperature: 35.0°C DB (95.0°F DB)
   Piping Length: 7.5 metre
   Piping Lift: 0 metre
   Heating Operation Conditions
   Indoor Air Inlet Temperature: 20.0°C DB (68.0°F DB)
   Outdoor Air Inlet Temperature: 7.0°C DB (45.0°F DB)
   6.0°C WB (43.0°F WB)
   Piping Length: 7.5 metre
   Piping Lift: 0 metre
2. The sound pressure level is based on following conditions.
   1.0 metre Beneath the unit.
   1.0 metre from Discharge grille.
   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.

WALL MOUNTED TYPE

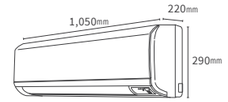
HNRQ Series

DIMENSIONS

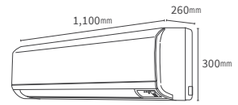
RPK-0.8-1.5FSNQS **10kg**



RPK-1.8-2.3FSNQS **12.5kg**



RPK-2.5-4.0FSN4M **15kg**



FEATURES AND BENEFITS

Simple installation procedure

Refrigerant piping can be connected from the rear, base, or left of the unit, providing much greater flexibility for piping and selection of installation sites.

Flexible design suitable for any décor

With smooth flat covers, the units match most modern interiors. Their compact size enables them to blend in, even in small spaces.

Easy maintenance

Front flat panel keeps the unit from dust and facilitates maintenance work. The front grille hinges open easily—no tools are needed to gain quick access to the filter. The filter can be removed and cleaned as required.

Model			RPK-0.8FSNQS	RPK-1.0FSNQS	RPK-1.3FSNQS	RPK-1.5FSNQS	RPK-1.8FSNQS	RPK-2.0FSNQS	RPK-2.3FSNQS
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz]						
Nominal Capacity	Cooling	kW	2.2	2.8	3.6	4.0	5.0	5.6	6.3
	Heating	kW	2.5	3.3	4.0	4.5	5.6	6.3	7.1
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	38/36/32	38/36/32	40/36/34	41/38/36	42/39/35	42/39/35	45/42/39
Color			White						
Outer Dimension	(H×W×D)	mm	280×780×220	280×780×220	280×780×220	280×780×220	290×1,050×220	290×1,050×220	290×1,050×220
Net Weight		kg	10	10	10	10	12.5	12.5	12.5
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m^3/min	8.5/7.5/6.5	8.5/7.5/6.5	9.2/7.5/6.7	10/8.5/7.5	12/10.3/8.7	12/10.3/8.7	13.7/12/10.3
Connections			Flare-Nut Connection (with Flare Nuts)						
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	Gas Line	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP16	VP16	VP16	VP16	VP16	VP16	VP16
Approximate Packing Volume		m^3	0.12	0.12	0.12	0.12	0.15	0.15	0.15

Model			RPK-2.5FSN4M	RPK-3.0FSN4M	RPK-4.0FSN4M
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz]		
Nominal Capacity	Cooling	kW	7.1	8.0	11.2
	Heating	kW	8.5	9.0	12.5
Sound Pressure Level	(Hi2/Hi/Me/Lo)	dB(A)	45/42/38/35	47/44/40/35	51/48/44/39
Color			White		
Outer Dimension	(H×W×D)	mm	300×1,100×260	300×1,100×260	300×1,100×260
Net Weight		kg	15	15	15
Refrigerant			R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi2/Hi/Me/Lo)	m^3/min	18.5/16.5/14/12	20/17.5/15.5/12.5	23/20/17.5/14.5
Motor		W	38	38	38
Connections			Flare-Nut Connection (with Flare Nuts)		
Refrigerant Piping Diameter	Liquid Line	mm	Φ9.52	Φ9.52	Φ9.52
	Gas Line	mm	Φ15.88	Φ15.88	Φ15.88
Condensate Drain			VP16	VP16	VP16
Approximate Packing Volume		m^3	0.14	0.14	0.14

NOTE:
1. The cooling and heating capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.
   Cooling Operation Conditions
   Indoor Air Inlet Temperature: 27.0°C DB (80.0°F DB)
   19.0°C WB (66.2°F WB)
   Outdoor Air Inlet Temperature: 35.0°C DB (95.0°F DB)
   Piping Length: 7.5 metre
   Piping Lift: 0 metre
   Heating Operation Conditions
   Indoor Air Inlet Temperature: 20.0°C DB (68.0°F DB)
   Outdoor Air Inlet Temperature: 7.0°C DB (45.0°F DB)
   6.0°C WB (43.0°F WB)
   Piping Length: 7.5 metre
   Piping Lift: 0 metre
2. The sound pressure level is based on following conditions.
   1.0 metre Beneath the unit.
   1.0 metre from Discharge grille.
   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.

WALL MOUNTED TYPE

HNSKQ Series

FEATURES AND BENEFITS

Simple installation procedure

Refrigerant piping can be connected from the rear, base, or left of the unit, providing much greater flexibility for piping and selection of installation sites.

To ensure quieter environment

"External Expansion Valve Type" are suitable for hotel rooms or residences where background noise is lower. To minimize the continuous refrigerant running noise, You can install the expansion valve away from the unit.

Easy maintenance

Front flat panel keeps the unit from dust and facilitates maintenance work. The front grille hinges open easily—no tools are needed to gain quick access to the filter. The filter can be removed and cleaned as required.

GENERAL DATA & ACCESSORIES

Type			Expansion Valve built-in type							External Expansion Valve type		
Model			RPK-0.8 FSN4M	RPK-1.0 FSN4M	RPK-1.5 FSN4M	RPK-2.0 FSN4M	RPK-2.5 FSN4M	RPK-3.0 FSN4M	RPK-4.0 FSN4M	RPK-0.8 FSNH4M	RPK-1.0 FSNH4M	RPK-1.5 FSNH4M
Indoor Unit Power Supply			AC 1Φ, [220-240V/50Hz] [220V/60Hz]							AC 1Φ, [220-240V/50Hz] [220V/60Hz]		
Nominal Capacity	Cooling	kW	2.2	2.8	4.0	5.6	7.1	8.0	11.2	2.2	2.8	4.0
	Heating	kW	2.5	3.2	4.8	6.3	8.5	9.0	12.5	2.5	3.2	4.8
Sound Pressure Level	(Hi2/Hi/Me/Lo)	dB(A)	39/35/32/30	39/35/32/30	46/40/36/33	40/37/34/31	45/42/38/35	47/44/40/35	51/48/44/39	39/35/32/30	39/35/32/30	46/40/36/33
Color			White							White		
Outer Dimension	(H×W×D)	mm	300×790×230	300×790×230	300×900×230	300×1,100×260	300×1,100×260	300×1,100×260	300×1,100×260	300×790×230	300×790×230	300×900×230
Net Weight		kg	10	10	11	14.5	15	15	15	10	10	11
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi2/Hi/Me/Lo)	m^3/min	10/8/7/6.5	10/8/7/6.5	14/11/9/7.5	14.5/13/11/9.5	18.5/16.5/14/12	20/17.5/15.5/12.5	23/20/17.5/14.5	10/8/7/6.5	10/8/7/6.5	14/11/9/7.5
Motor			38	38	38	38	38	38	38	38	38	38
Connections			Flare-Nut Connection (with Flare Nuts)							Flare-Nut Connection (with Flare Nuts)		
Refrigerant Piping Diameter	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.52	Φ9.52	Φ9.52	Φ6.35	Φ6.35	Φ6.35
	Gas Line	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.88	Φ15.88	Φ15.88	Φ12.7	Φ12.7	Φ12.7
Condensate Drain			VP16	VP16	VP16	VP16	VP16	VP16	VP16	VP16	VP16	VP16
Approximate Packing Volume		m^3	0.09	0.09	0.11	0.14	0.14	0.14	0.14	0.09	0.09	0.11
Accessory included			Wall Mounting Bracket							Wall Mounting Bracket		

Receiver kit		PC-ALHZ1
Strainer kit	FSN4M: 0.8-2.0 (HP Class)	MSF-NP63A1
	FSN4M: 2.5-4.0 (HP Class)	MSF-NP112A1
	FSNH4M: 0.8-1.5 (HP Class)	MSF-NP36AH1
External Expansion Valve Kit	FSNH4M	EV-1.5N1

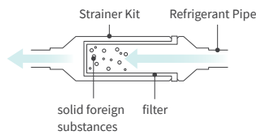
NOTES:

1. The cooling and heating capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.

Cooling Operation Conditions		Heating Operation Conditions	
Indoor Air Inlet Temperature:	27.0°C DB 19.0°C WB	Indoor Air Inlet Temperature:	20.0°C DB
Outdoor Air Inlet Temperature:	35.0°C DB	Outdoor Air Inlet Temperature:	7.0°C DB 6.0°C WB
Piping Length: 7.5 metre		Piping Length: 7.5 metre	
Piping Lift: 0 metre		Piping Lift: 0 metre	

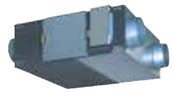
2. The sound pressure level is based on following conditions.
   1.0 metre Beneath the Unit.
   1.0 metre from Discharge Grille.
   The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
   When bottom air inlet is adopted, sound pressure will increase according to factors such as installation mode and the room structure.
3. RPK-0.6FSN4M & RPK-0.6FSN4HM cannot be connected to HNRQ series.
   Please refer to the technical catalogue for the details.

STRAINER KIT



A strainer kit ensures that solid foreign substances, like small particles of metal, are caught before they enter the electric expansion valves of a wall-mounted indoor unit.
Without the strainer kit's filter, these particles may prevent the valves from being fully sealed, creating a risk of explosive condensation when the unit becomes active.

VENTILATION



TOTAL HEAT EXCHANGER

Model			KPI-20H-A-GQ	KPI-30H-A-GQ	KPI-40H-A-GQ	KPI-50H-A-GQ	KPI-65H-A-GQ	KPI-80H-A-GQ	KPI-100H-A-GQ	KPI-125H-A-GQ
Unit Power Supply			AC 1Φ, [220/50Hz]							
Temp. Efficiency	Summer (Hi/Me/Lo)	%	64/64/70	60/60/65	61/61/66	60/60/62	65/65/69	65/65/69	65/65/69	65/65/69
	Winter (Hi/Me/Lo)	%	80/80/83	77/77/80	79/79/81	75/75/76	75/75/78	74/74/78	72/72/76	70/70/78
Enthalpy Efficiency	Summer (Hi/Me/Lo)	%	69/69/76	63/63/70	64/64/69	63/63/65	57/57/60	60/60/63	58/58/63	53/53/61
	Winter (Hi/Me/Lo)	%	75/75/78	70/70/75	70/70/75	69/69/71	65/65/70	70/70/72	66/66/69	63/63/72
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	32/30/25	36/34/28	39/37/30	40/38/31	40/38/35	40/38/34	43/42/34	42/40/37
Outer Dimension	(H×W×D)	mm	220×962×735	220×962×735	220×1,112×735	220×1,112×735	388×1,119×884	388×1,119×884	388×1,119×884	430×1,250×1,135
Net Weight		kg	38	40	46	52	61	69	69	95
Air Flow Rate	(Hi/Me/Lo)	m^3/h	200/200/150	300/300/210	400/400/230	500/500/400	650/650/550	800/800/650	1,000/1,000/700	1,250/1,250/800
External Static Pressure	(Hi/Me/Lo)	Pa	100/70/40	120/90/50	120/90/50	120/90/50	130/100/90	130/100/90	165/120/60	100/50/30
Power Input	(Hi/Me/Lo)	W	120/110/75	165/155/120	210/200/130	330/310/230	2×(188/173/142)	2×(207/188/165)	2×(250/228/205)	2×(308/266/237)
Current	(Hi/Me/Lo)	A	0.6/0.5/0.4	0.8/0.7/0.6	1.0/1.0/0.7	1.6/1.5/1.1	1.72/1.58/1.31	2.04/1.93/1.73	2.35/2.09/1.92	3.03/2.45/2.18
Connection Duct Diameter		mm	Φ144	Φ144	Φ144	Φ194	Φ242	Φ242	Φ242	320×250 +320×250
Approximate Packing Volume		m^3	0.37	0.37	0.43	0.49	0.94	1.15	1.15	1.25

Model			KPI-150H-E-GQ	KPI-200H-E-GQ	KPI-250H-E-GQ	KPI-300H-E-GQ	KPF-400H-E-GQ	KPF-500H-E-GQ
Unit Power Supply			AC 3Φ, [380/50Hz]					
Temp. Efficiency	Summer	%	63	63	63	63	63	63
	Winter	%	68	72	75	75	73	73
Enthalpy Efficiency	Summer	%	57	57	55	56	55	53
	Winter	%	68	68	72	72	63	61
Sound Pressure Level		dB(A)	50	51	53	54	57	58
Outer Dimension	(H×W×D)	mm	536×1,500×1,300	536×1,500×1,400	640×1,700×1,500	640×1,750×1,600	1,655×1,400×850	1,730×1,700×850
Net Weight		kg	144	155	180	220	225	260
Air Flow Rate		m^3/h	1,500	2,000	2,500	3,000	4,000	5,000
External Static Pressure		Pa	165	160	180	200	220	240
Power Input		W	2×440	2×810	2×925	2×1,080	2×1,470	2×1,980
Current		A	2.84	3.08	4.19	5.23	5.57	7.51
Connection Duct Diameter		mm	400×320 +400×320	400×320 +400×320	500×350 +500×350	500×350 +500×350	400×320 +590×320	500×350 +700×320
Approximate Packing Volume		m^3	1.82	1.95	2.63	2.93	3.01	3.75

NOTE:
Remote controller for Total Heat Exchanger is included in the unit package as standard equipment.

OPTIONAL PARTS

(Each number (HP class) represents the number in the model nomenclature of each indoor units)

CEILING CASSETTE

4-way cassette type

Decoration Panel		- (Standard)
Receiver Kit	Basic	HR4A10NEWQ
	Advanced	PC-ALH3
Motion Sensor		PS-MSK2
Duct Adapter		PD-75A
Condensate Drain Pump		- (Standard)

4-way cassette compact type

Decoration Panel		P-AP56NAM
Receiver Kit	Advanced	PC-ALHC1
Motion Sensor		SOR-NEC
Duct Adapter		PD-75C
Condensate Drain Pump		- (Standard)

2-way cassette type

Decoration panel	0.8-3.0 (HP class)	P-AP90DNA
	4.0-6.0 (HP class)	P-AP160DNA
Receiver kit	Advanced	PC-ALHD1
Motion Sensor		SOR-NED
Duct Adapter		PD-150D
Condensate Drain Pump		- (Standard)

1-way cassette type

Decoration Panel	0.8-1.0 (HP class)	P-AP36CNA
	1.5-2.0 (HP class)	P-AP56CNA
	2.5-3.0 (HP class)	P-AP80CNA
Receiver Kit	Advanced	PC-ALHS1
Motion Sensor		SOR-NES
Duct Adapter		PD-100
Condensate Drain Pump		- (Standard)

DUCTED

Receiver Kit	Basic		PC-RLH11
	Advanced		PC-ALHZ1
Condensate Drain Pump	0.8-2.5 (HP class)		DUPI-131Q
	3.0-6.0 (HP class)		DUPI-361Q
	Slim/Compact		- (Standard)
Air filter	Medium ESP/Low ESP	0.8-1.5 (HP class)	KW-PP7Q
	Medium ESP/Low ESP	1.8-2.5 (HP class)	KW-PP8Q
	High ESP/Low ESP	3.0-4.0 (HP class)	KW-PP9Q
	High ESP/Low ESP	5.0-6.0 (HP class)	KW-PP10Q
	Compact	0.8-1.5 (HP class)	KW-PP5Q
	Compact	1.8-2.5 (HP class)	KW-PP6Q

OTHERS

Floor concealed type

Receiver Kit	Basic	PC-RLH11
	Advanced	PC-ALHZ1

Ceiling/Floor convertible type

Receiver Kit	Basic	- (Standard)
	Advanced	PC-ALHZ1

Basic Receiver kit is delivered as a standard part of this Ceiling/Floor Convertible type indoor units in the same carton package, with Wireless Remote Controller (PC-LH3A).

Ceiling suspended type

Receiver kit	Advanced	PC-ALHP1
Motion Sensor		SOR-NEP
Condensate Drain Pump	1.5 (HP class)	DUPC-63K1
	2.0 (HP class)	DUPC-71K1
	2.5-6.0 (HP class)	DUPC-160K1

Wall mounted type

Receiver kit	Basic	PC-RLH11 (*1)
	Advanced	PC-ALHZ1 (*2)
Strainer kit	0.8-2.3 (HP class)	MSF-NP63A1
	2.5-4.0 (HP class)	MSF-NP112A1

(*1) (0.8-2.3HP class)
Basic Receiver kit is delivered as a standard part of this wall mounted unit with Wireless Remote Controller (PC-LH3A).
(*2) (2.5-4.0HP class)
Advanced Receiver kit is installed in this wall mounted unit as a standard part.
If separate placement of receiver kit is required, please use optional basic receiver kit (PC-RLH11) or optional advanced receiver kit (PC-ALHZ1).

<Receiver Kit>

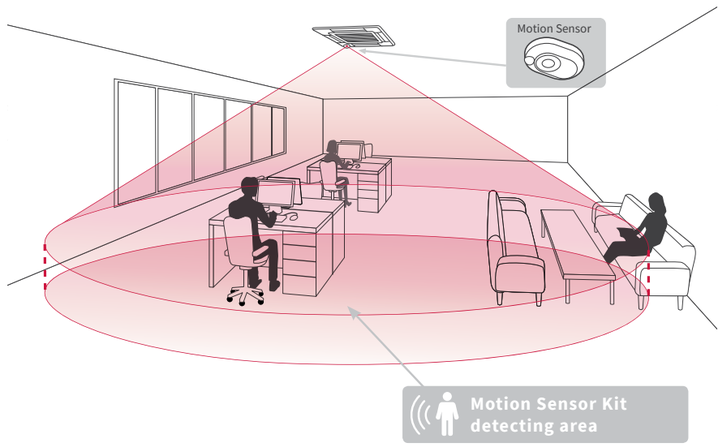
Basic Limited function available for centralized controllers Temperature Setting Rate [1.0°C] only

Advanced Full function available for centralized controllers Temperature Setting Rate [0.5°C/1.0°C/1.0°F]

INTRODUCTION OF MOTION SENSOR KIT

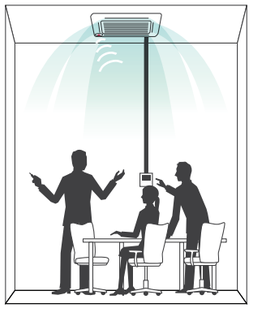
What is it?
It senses the amount of human activity, undertakes automatic saving and achieves intelligent energy saving.

Image

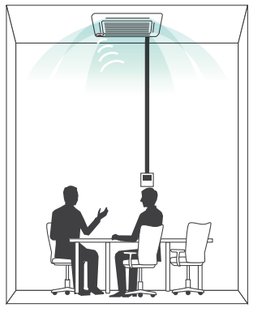


How does it work?
Perceives the amount of human activity and undertakes automatic saving.

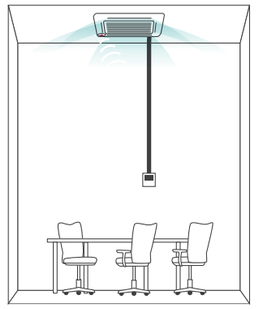
<example>



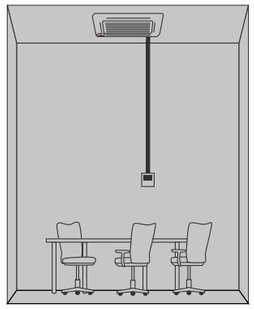
Standard operation for a room with a lot of human movement.



Moderate operation for a room with little human movement.



More moderate operation if people are absent for a certain period.



It is also possible to stop the operation of the unit by applying a particular setting if people remain absent for more than 30 minutes.

MODEL

Motion Sensor Kit	Indoor Unit	
PS-MSK2		4-way cassette type
SOR-NEC		4-way cassette compact type
SOR-NED		2-way cassette type

Motion Sensor Kit	Indoor Unit	
SOR-NES		1-way cassette type
SOR-NEP		Ceiling Suspended type

※Motion Sensor Kit is available only when advanced wired remote controller (PC-ARF1) is connected to each indoor unit.

Control systems

Whether you are at work or play, SET FREE mini allows you to have control over your living environment. By providing control systems that are easy to understand and use, we enable you to easily and accurately achieve optimal air conditioning management in a whole range of living spaces.

LINE UP OVERVIEW

COMPARING INDIVIDUAL CONTROLLERS

			WIRED REMOTE CONTROLLER	SIMPLIFIED WIRED REMOTE CONTROLLER	ADVANCED WIRED REMOTE CONTROLLER	WIRELESS REMOTE CONTROLLER
			HCWA10NEGQ	PC-ARH1	PC-ARF1	PC-LH3A
Connection Capacity		RCS Groups	1	1	1	-
		Indoor units (*1)	16	16	16	-
Setting		Temperature Setting Rate (*2)	0.5°C/1.0°C/1.0°F	0.5°C/1.0°C/1.0°F	0.5°C/1.0°C/1.0°F	1.0°C
		Indoor Fan Speed (*2) (*3)	3/4/6 taps	3/4/6 taps	3/4/6 taps	3 taps
		Louver Direction (*2)	●	●	●	●
		Individual Louver Setting (*2)	●	-	●	-
		Remote Control Primary-Secondary Setting	-	●	●	-
	Function Selection	Automatic Restart with Eco-operation	-	-	●	-
		Automatic Reset Temperature (Cooling)	●	●	●	-
		Temperature Indication (*4)	●	-	●	-
Service & Installation		Filter Sign	●	-	●	-
		Filter Sign Reset	●	-	●	●
		Louver Open/Close	-	-	●	-
		Room Name Setting	-	-	●	-
		Alarm Sign	●	●	●	-
		Identifying indoor units side-by-side	-	-	-	●
	Screen	Screen Adjustment	-	-	●	-
		Language	-	-	●	-
		Temperature Unit-°C/°F	●	● (*5)	●	-
		Adjusting Brightness of Run Indicator	-	-	●	-
	Check Menu	Sensor Condition Check	●	-	●	-
		Model Display (*2)	-	-	●	-
		Indoor/Outdoor PCB Check	-	-	●	-
		Alarm History Display	●	-	●	-
Management		Operation Lock/Set	● (*6)	-	●	-
		Lower Limit for Cooling Operation	●	●	●	-
		Upper Limit for Heating Operation	●	●	●	-
		Built-in Timer (On/Off)	●	-	●	●
		Adjusting Date/Time Setting	●	-	●	-
		Automatic OFF timer setting	-	●	●	-
	Schedule	Weekly Schedule	●	-	●	-
		Settable Timer Operation Times (Per Day)	1	-	5	-
		Holiday Setting	-	-	●	-
		Schedule On/Off	-	-	●	-
Power Saving		Power Saving with Motion Sensor	-	-	●	-
	Outdoor Unit capacity control	Peak cut control	-	-	●	-
		moderate control	-	-	●	-
	Indoor Unit Rotation Control	Indoor Unit Address	-	-	●	-
		Indoor Air Temperature difference	-	-	●	-
		Automatic Fan Operation	-	-	●	-
MENU		ODU silent mode	-	-	●	-
		Quick Function	-	-	●	-
	Comfort setting	Control Cool Air	-	-	●	-
		Saving/ODU Noise Reduction Schedule	-	-	●	-
		Daylight Saving Time	-	-	●	-
		Power Consumption visualization	-	-	●	-

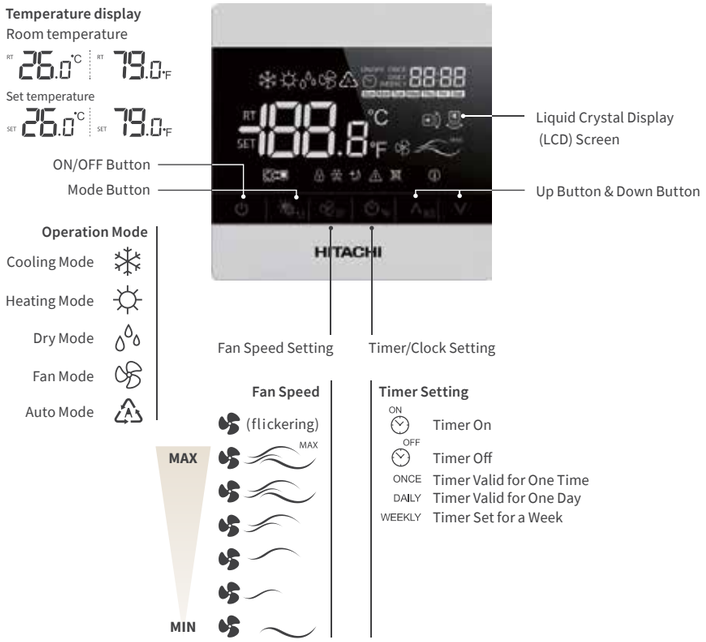
(*1) All 16 indoor units need to be connected with transition wire.
(*2) Availability depends on the indoor unit type connected to the each individual controllers. Please consult your distributors for more details.
(*3) 6 taps is available for Ducted indoor unit, compact type, RPIZ-HNDTSQ only.
(*4) Indicated temperature can be selected from two options, the thermistor in the indoor unit or in the individual controller.
(*5) Please contact your distributor in case temperature unit needs to be changed from °C to °F.
(*6) Only "bulk operation lock" available

COMPARING CENTRALIZED CONTROLLERS

			CENTRAL STATION mini	CENTRAL STATION EZ	CENTRAL STATION EX	CENTRAL STATION	CENTRALIZED ON/OFF CONTROLLER
			PSC-A32MN	PSC-A64GT	PSC-A128EX	PSC-A64S	PSC-A16RS
Capacity comparison	Total Connection capacity	RCS group	32	64	2,560 (*1)	64	16
		Group	4	64	2,048 (*1)	64	-
		Block	2/4/8/16	4	512 (*2)	4	-
		Area	-	-	512 (*2)	-	-
		Indoor unit	160	160	2,560 (*1)	160	160
		Outdoor unit	64	64	1,024 (*1)	64	-
	Building scale		Small	Medium	Large	Medium	Medium
	Operation		Touch screen	Touch screen	Touch screen	Button	Button
Display	Operation panel size options		4	2	7	-	-
	Layout		-	-	●	-	-
	List options		-	-	3	-	-
Operation unit	All together		●	●	●	●	●
	By layout		-	-	●	-	-
	By area		-	-	●	-	-
	By block		●	●	●	●	-
	By group		-	-	●	-	-
	By RCS group		●	●	-	●	●
	By indoor unit		-	-	●	-	-
Control Function	Main 5 functions (*5)		●	●	●	●	- (*6)
	Individual controller lock		●	△ (*3)	●	●	-
	Filter sign reset		●	●	●	●	-
	Outdoor unit capacity control		△ (*4)	-	●	-	-
	Outdoor unit noise control		-	-	●	-	-
Monitor Function	Main 5 functions (*5)		●	●	●	●	-
	Individual controller lock		●	●	●	●	-
	Alarm status & code		●	●	●	●	- (*7)
	Filter sign		●	●	●	●	-
	Air inlet temperature of indoor unit		●	●	●	-	-
	Air inlet temperature of outdoor unit		●	●	●	-	-
Schedule Function	Weekly		●	●	●	- (*8)	- (*8)
	Setting times per day		10	10	16	3 (*8)	3 (*8)
	Special day setting		-	-	5	-	-
	Annual/Summer/Winter schedule		-	-	●	-	-
Other function	Alarm history (records number)		100	100	10,000	-	-
	External in/output history		-	-	1,000	-	-
	Management report visualization		●	●	●	-	-
	Data output by external media		-	-	SD card, USB flash device	-	-

(*1) One external adapter can control [128 remote controller groups/128 groups/32 blocks], and Central Station EX can connect up to 15 adapters.
(*2) No restriction on the number of H-LINK
(*3) Individual Function Control in Each Remote Controller is not applicable
(*4) Applicable by Schedule function or External Signal input
(*5) Main 5 functions mean 1) Run/Stop 2) Operation mode 3) Temperature setting 4) Fan speed 5) Louver control
(*6) Only Run/Stop is available
(*7) Alarm Code cannot be displayed, but Operation indicator keeps flashing in red to inform abnormal condition
(*8) Available with 7-day timer (PSC-A1T)

WIRED REMOTE CONTROLLER HCWA10NEGQ



SPECIFICATIONS

Outer Dimensions (H×W×D)

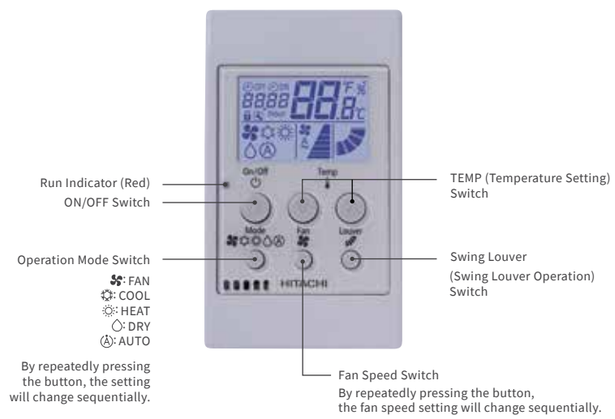
(mm) 88.0×88.0×15.5

FUNCTIONS

Setting	Run/Stop
	Operation Mode
	Auto Mode
	Temperature Setting Rate_0.5°C/1.0°C/1.0°F
	Temperature Unit_°C/°F
	Fan Speed_3/4/6 taps
	Louver Direction
	Individual Louver Setting
Service	Filter Sign
	Filter Sign Reset
	Alarm Sign
	Alarm Sign History
Schedule & Management	Daily Timer
	Weekly Timer
	Main-sub Control
	Operation Lock

Notes:
1. Fan Speed Taps setting unit availability varies with the indoor unit. Please check each technical catalog in advance.
2. Initial Setting of temperature display is "Set temperature" display only. Please contact your dealer to display room temperature.

SIMPLIFIED WIRED REMOTE CONTROLLER PC-ARH1



SPECIFICATIONS

Outer Dimensions (H×W×D)

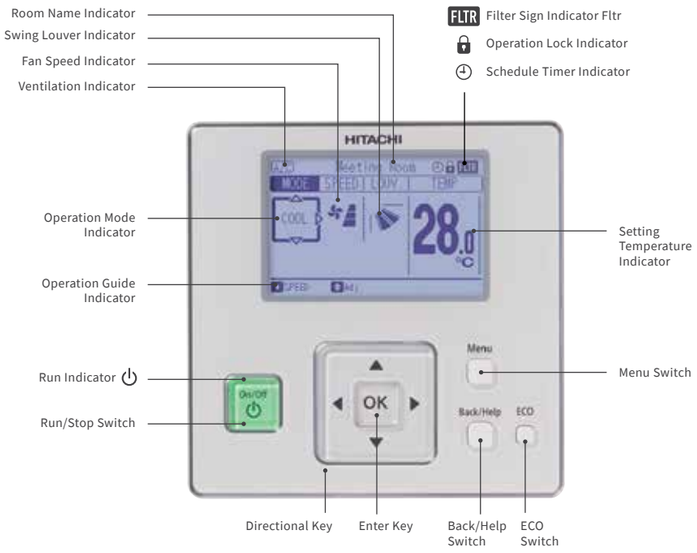
(mm) 120.0×70.0×17.0

FUNCTIONS

Setting	Run/Stop
	Operation Mode
	Auto Mode Setting
	Temperature Setting
	Temperature setting rate_0.5°C/1.0°C/1.0°F
	Back-light screen
	Fan Speed_3/4/6 taps
	Louver Direction

*Please contact your dealer in case "temperature setting rate" needs to be changed from °C to °F.

ADVANCED WIRED REMOTE CONTROLLER PC-ARF1



SPECIFICATIONS

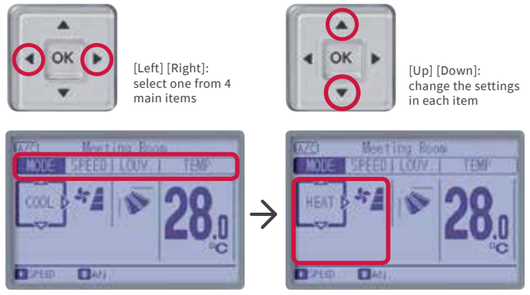
Outer Dimensions (H×W×D)

(mm) 120.0×120.0×17.9

SIMPLE OPERATION

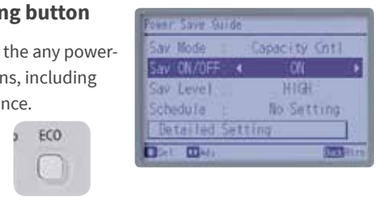
Directional Key

4 main items [Mode] [Speed] [Louver] [Temperature]



Power-saving button

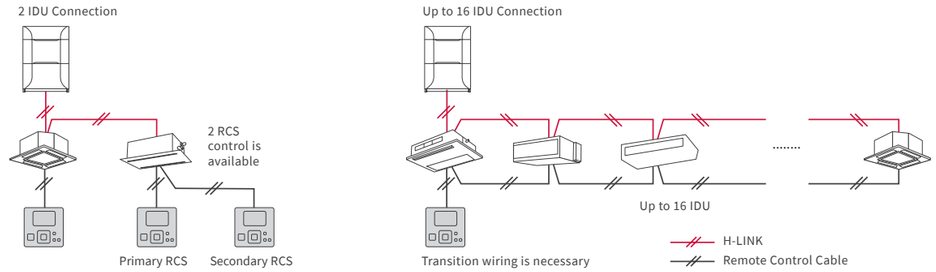
Easy access to the any power-saving functions, including support-guidance.



Menu button

Display all setting except 4 main items, like schedule.

EXAMPLE OF SYSTEM CONFIGURATION



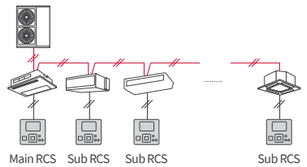
FUNCTIONS

Setting	Run/Stop	
	Operation Mode	
	Auto Mode Setting	
	Temperature Setting	
	Temperature Setting Rate_0.5°C/1.0°C/1.0°F	
	Fan Speed_3/4/6 taps	
	Louver Direction	
	Individual Louver Setting	
	Remote Control Primary-Secondary Setting	
	Function Selection	Automatic Restart with Eco-operation
		Automatic Reset Temperature (Cooling/Heating)
		Temperature Indication
Service	Filter Sign	
	Filter Sign Reset	
	Louver Open/Close	
	Room Name Setting	
	Alarm Sign	
	Alarm History Display	
Screen	Screen Adjustment	
	Temperature Unit_°C/°F	
	Adjusting Brightness of Run Indicator	
Management	Operation Lock/Set	
	Main/Sub Control	
	Built-in-Timer (On/Off)	
	Adjusting Date/Time Setting	
	Thermometer Indication	
Power-Saving	With Motion Sensor Kit	
	ODU Capacity Control • Peak Shaving Control • Proper Limit Control	
	Indoor Unit Rotation Control	
	Automatic Fan Operation	
	Auto Recovery of Temperature	
	Upper Limit for Heating Operation	
	Lower Limit for Cooling Operation	
Schedule	Weekly Schedule	
	Settable Timer Operation Times (per day): 5	
	Holiday Setting	
	Schedule On/Off	
	ODU Noise Reduction Schedule	

ADAPTABILITY

Improved main-sub RCS control

By one main RCS, you can control the multiple IDUs which are controlled by sub RCS.
* Operation Mode
* Setting Temperature



Thermometer function

Current temperature can be displayed anytime, without being in maintenance mode.

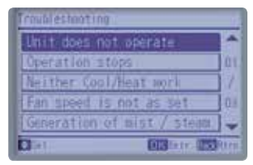
*Thermometer can be chosen out of 3 sensors (Air inlet, Air outlet, Remote controller)

Alarm code check

Contact address shown in the same display.

Help Menu

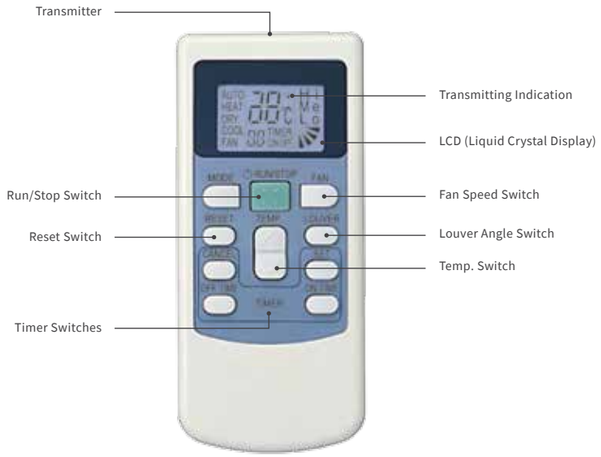
Access when in trouble. Screen guide, Operation Manuals, Troubleshooting Q&A listed.



ODU silent mode

Set in the weekly schedule by 5 times.

WIRELESS REMOTE CONTROLLER PC-LH3A



SPECIFICATIONS

Outer Dimensions (H×W×D)

(mm) 125.0×56.0×16.4

FUNCTIONS

Setting	Run/Stop
	Operation Mode
	Auto Mode Setting
	Temperature Setting
	Temperature Setting Rate_1.0℃
	Fan Speed_3 Taps
	Louver Direction
Service	Identifying indoor units side-by-side
	Temperature Unit_℃
Schedule	Built-in Timer (On/Off)

※When you use Standard Receiver kit equipped with PC-LH3A (Wired Remote Controller), Centralized Controller cannot be operated.

RECEIVER KIT FOR WIRELESS REMOTE CONTROLLER

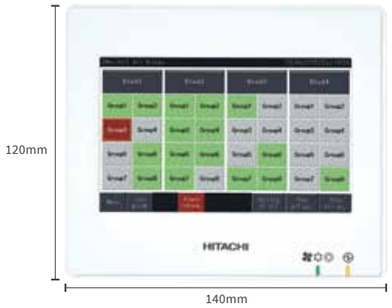
Model	HR4A10NEWQ (Basic)	PC-ALH3 (Advanced)	PC-ALHC1 (Advanced)	PC-ALHD1 (Advanced)	PC-ALHS1 (Advanced)	PC-ALHP1 (Advanced)	PC-RLH11 (Basic)		PC-ALHZ1 (Advanced)	
IDU type	4-way cassette		4-way cassette compact	2-way cassette	1-way cassette	Ceiling suspended	Ducted	Floor concealed	Floor/ceiling convertible	Wall mounted
	RCI-FSKDNQ		RCIM-FSN4	RCD-FSN3	RCS-FSN	RPC-FSN3	RPIH-HNAUNQ RPIM-HNAUNQ RPIL-HNAUNQ RPIZ-FSNQS/P RPIZ-HNATNQ RPIZ-HNDTSQ	RPFI-FSNQ	RPFC-FSNQ (*1)	RPK-FSNQS (*1) RPK-FSN4M (*2)
Compatible wireless remote controller PC-AWR	●		●	●	●	●	●	●	●	●
Compatible wireless remote controller PC-LH3A	●		–	–	–	–	●	●	●	●

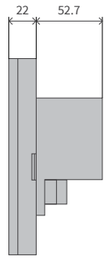
Basic **Limited function available for centralized controllers**
Temperature Setting Rate [1.0°C] only
Advanced **Full function available for centralized controllers**
Temperature Setting Rate [0.5°C/1.0°C/1.0°F]

(*1) Concerning only (Floor/Ceiling Convertible type: RPFC-FSNQ) & (Wall Mounted Unit: RPK-FSNQS),
Basic Receiver kit is delivered as a standard part of these indoor units in the same carton package, with Wireless Remote Controller (PC-LH3A).
(*2) Concerning only (Wall Mounted Unit: RPK-FSN4M),
Advanced Receiver kit is installed in this wall mounted unit as a standard part.
If separate placement of receiver kit is required, please use optional basic receiver kit (PC-RLH11) or optional advanced receiver kit (PC-ALHZ1).

Notes
When you use basic receiver kit (PC-RLH11 or HR4A10NEWQ) equipped with wireless remote controller (PC-LH3A)
1) Setting Hi2 is not available even if the connected indoor units has Hi2 air flow rate setting
2) It is not available to set up "remote control switch operation prohibited by each function setting" from central station (mini/EZ/EX)
3) It is not available to set up "remote control switch temperature setting range limitation function" from central station (mini/EZ/EX)

CENTRAL STATION mini FOR SMALL-SCALE BUILDINGS PSC-A32MN





Lateral View (mm)

Most compact in our touch panel centralized controller. Its down-to-detail control functionalities, such as Weekly Scheduling, Accumulated Work Hours, etc., help you save energy. Up to 32 remote-controlled groups and up to 160 indoor units can be connected to the single air-conditioning system.

CAPACITY

RC group	32
Group	32
Block	4 Patterns (2/4/8/16)
Indoor Unit	160
Outdoor Unit	64
Building Scale	Small

SPECIFICATIONS

Rated Power Supply	1-, AC 100-240V, 50/60Hz
Electrical Power Consumption	20W (Max.)
Communication Unit	Units of Adopting for H-LINK
Communication Line	Non-polar 2-wire
Communication Speed	9,600bps
Wiring Length	1,000m (Total Length)
Display	5.0-inch Wide Color LCD (Full Dot)
Display Control	Touch Panel

FUNCTIONS

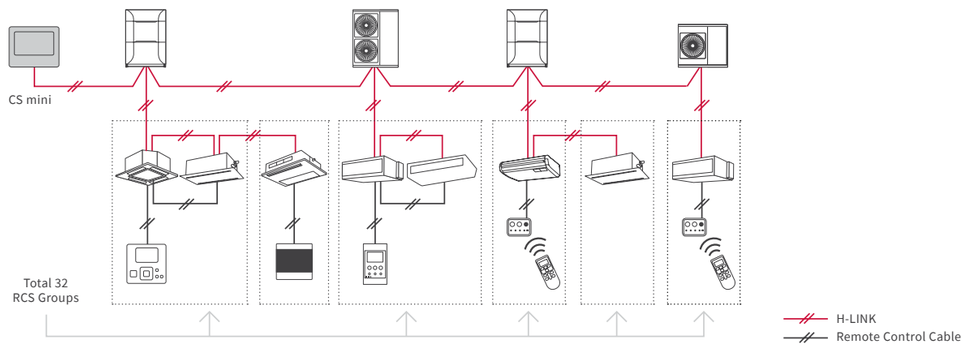
Monitor Function	• Run/Stop/Abnormality • Setting Temperature • RCS Operation Prohibited Setting • Accumulated Operating Time • Operation Mode • Setting Fan Speed • Setting Louver • Filter Sign • Alarm Code"
Control Function	• Run/Stop* • Fan Speed • Operation Mode • Louver • Temperature Setting • RCS Operation Prohibited • Filter Sign Reset

*: "All Groups Run/Stop" command signal exception function for selected groups is available by "Exception of Run/Stop Operation." function.

RECOMMENDED FACILITIES

OFFICE RETAIL HISTORIC BUILDING HOSPITAL SCHOOL

EXAMPLE OF SYSTEM CONFIGURATION



(5-inch) Touch Panel Operation

Easy to check the operation status using either of two monitoring screens (all groups or four pattern blocks [2/4/8/16])

[Monitor (Block)]

Schedule

Up to 10 actions/day per RCS group can be set as available as auto switch-off timer

For example: School

mini		In case of classroom in cooling mode			
9:00	~	10:00	27	°C	Class: on
10:00	~	11:00	27	°C	Class: on
11:00	~	12:00	-	°C	No class: off
12:00	~	13:00	25	°C	LUNCH TIME
13:00	~	14:00	-	°C	No class: off
14:00	~	15:00	27	°C	Class: on
15:00	~	16:00	-	°C	No class: off
16:00	~	17:00	27	°C	Class: on
17:00	~		-	°C	No class: off

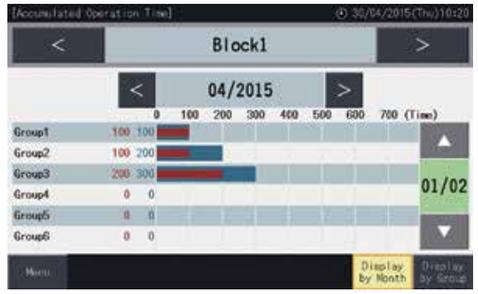
RCS Group Function Control

-each operational item blocking-prevent incorrect operation

ON/OFF, "operation mode," "fan speed," "swing louver direction," "setting temperature," and "prohibition of remote control operation for individual items (run/stop, operation mode, fan speed, wind direction, setting temperature)"

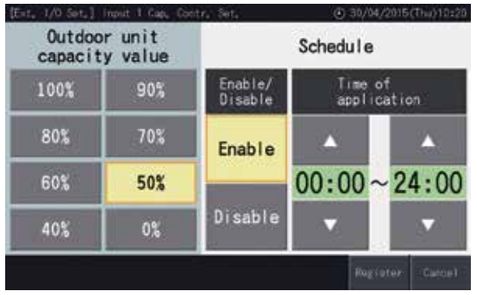
Accumulated Operation-Time Visualization

Support energy-saving management



Energy Saving

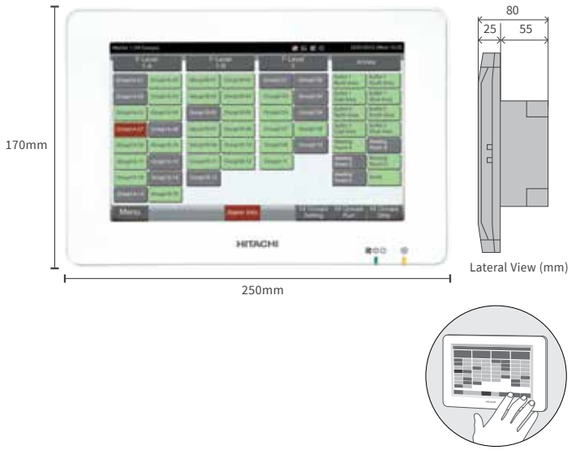
Outdoor unit power consumption control by schedule or external signals. Setting temperature range.



[Capacity Control of ODU]

[Temperature Limitation for Each Remote Controller]

CENTRAL STATION EZ FOR MEDIUM-SCALE BUILDINGS PSC-A64GT



Easy control with 8.5 inch color touch panel,
Its down-to-detail control functionalities,
such as Weekly Scheduling, Accumulated Work Hours,
etc., help you save energy. Up to 64 remote-controlled
groups and up to 160 indoor units can be connected
to the single air-conditioning system.

CAPACITY

RC group	64
Group	64
Block	4 Patterns
Indoor Unit	160
Outdoor Unit	64
Building Scale	Small-Medium

SPECIFICATIONS

Rated Power Supply	1-, AC 100-240V, 50/60Hz
Electrical Power Consumption	30W (Max.)
Communication Unit	Units of Adopting for H-LINK
Communication Line	Non-polar 2-wire
Communication Speed	9,600bps
Wiring Length	1,000m (Total Length)
Display	8.5-inch Wide Color LCD (Full Dot)
Display Control	Touch Panel

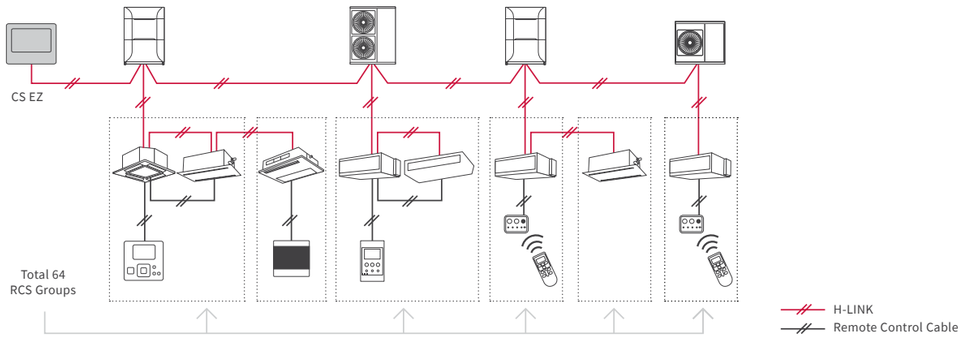
FUNCTIONS

Monitor Function	• Run/Stop/Abnormality • Setting Temperature • RCS Operation Prohibited Setting • Accumulated Operating Time • Operation Mode • Setting Fan Speed • Setting Louver • Filter Sign • Alarm Code
Control Function	• Run/Stop* • Fan Speed • Operation Mode • Louver • Temperature Setting • RCS Operation Prohibited • Filter Sign Reset

* "All Groups Run/Stop" command signal exception function for selected groups is available by "Exception of Run/Stop Operation." function.

RECOMMENDED FACILITIES

EXAMPLE OF SYSTEM CONFIGURATION



(8.5-inch) Touch Panel Operation

A total of 64 remote controller groups (4 blocks)(64 outdoor units/160 indoor units) can be controlled
Easy to check the operation status using either of two monitoring screens (all groups or blocks)
The panel for the block is bigger than for the CS MINI; you can check Mode, Fan Speed, Louver, Temperature, Inlet and Ambient Temperature.

[Monitor 1 (all groups)]

[Monitor 2 (block)]

ACCUMULATED OPERATION-TIME VISUALIZATION

Supports Energy-Saving Management

Alarm Information

Red color indication: immediate display of malfunction location and cause.

Schedule

Up to 10 actions/day per RCS groups can be set as available as auto switch-off timer.

[Weekly Schedule]

[Holiday Setting]

CENTRAL STATION EX FOR LARGE-SCALE BUILDINGS PSC-A128EX

Extension Adapter
PSC-AD128EX

Energy Calculation Software*
PSC-AS01EXC
*Required only for calculating electricity

For large scale buildings such as hotels, educational facilities, or hospitals, our Central Station EX features a highly intuitive and functional 12.1-inch wide, wall-mountable, colorful LCD screen. Control up to 2,560 indoor units with our proprietary H-LINK system with 15 Extension Adapters (PSC-AD128EX)

CAPACITY

H-LINK	16
Remote Controller group	2,560 (*1)
Group	2,048 (*1)
Block	512 (*2)
Area	512 (*2)
Indoor unit	2,560 (*1)
Outdoor unit	1,024 (*1)
Building scale	Large

(*1) One external adapter can control [160 RC groups/128 groups/160 IDUs/64 ODUs/Each layout], and Central Station EX can connect up to 15 adapters.
(*2) No restriction on the number of H-LINK

SPECIFICATIONS

Rated power supply	100~240VAC±10% (50/60Hz)
Electrical power consumption	50W (Max.)
Communication unit	Units of Adopting for H-LINK
Communication line	Nonpolar Two Wires
Communication speed	9,600bps
Wiring length	1,000m (Total Length)
Display	12.1 inch TFT color liquid crystal display
Display control	Touch Panel

RECOMMENDED FACILITIES

FUNCTIONS

Operation unit	All together Each area Each block Each group Each RCS group
Control function	On/Off Mode Set temperature Fan speed Louver RC prohibition Filter sign reset Function selection for indoor units (*1) Function selection for outdoor units (*2) Capacity control for outdoor units (*2) Lower noise control for outdoor units (*2)
Monitor function	On/Off Mode Set temperature Air intake temperature RC sensor temperature (*3) Air intake temperature of outdoor unit Fan Speed Louver RC prohibition Thermo-ON information Filter sign/Auto cleaning fault Alarm status/Alarm codes
Schedule function	Each of the following setting is available in 3 different [annual] [summer][winter] category → Weekly schedule → Up to 16 actions can be set per day → Exception day setting: 5 different types → Holiday setting Setting items in schedule is as below; • On/Off • Operation mode • Setting temperature • Louver • Fan speed • RC operation prohibition • Capacity control for outdoor units • Lower noise control for outdoor units
History	Alarm history: 10,000 records External In/Output history: 1,000 records Pulse input history: 6 months
Management report visualization	Each of the following data of up to 2 years can be shown: • Accumulated operation time (min.) • Accumulated thermo-ON time (min.) • Average air intake temp temperature of indoor unit • Average air intake temperature of outdoor unit • Average setting temperature • Average RC sensor temperature
External input/output	**Energy saving** • Run/Stop • RC prohibition • Temperature shift (For Cool/Dry mode: +1.0°C~+9.0°C (+1.0°F~+18.0°F)) (For Heat mode: -1.0°C~-9.0°C (-1.0°F~-18.0°F)) • Mode shift (Mode shifted to Fan when in Cool/Dry mode, and shifted to Stop in Heat mode) • Capacity control on outdoor units • Lower noise control for outdoor units **Control/Monitor** → Controlled items: • Run/Stop • Mode (Cool/Heat) → Monitored items: • Run/Stop • Mode (Cool/Heat) • Alarm state **Others** • Power consumption signal input • Emergency stop

(*1) Some indoor units may not fully support all functions.
(*2) It is available for applicable outdoor units only.
(*3) There is a case that it cannot be shown in the screen, depending on the remote controller setting.

EASY TO READ, EASY TO USE

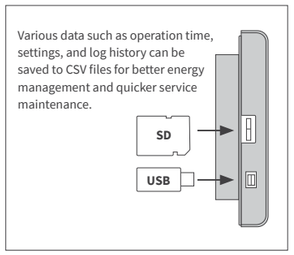
The stand-alone Central Station EX uses a touch screen, capacitive LCD panel.

Better display resolution (1,280×800)
Larger screen (12.1 inches wide)

Flick and swipe to turn pages

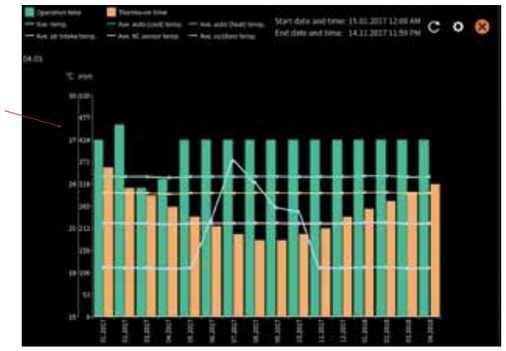
BETTER ENERGY SAVING AND QUICKER MANAGEMENT

Management reports can be visualized in various ways, and data can be acquired using SD memory and USB flash devices.



The following data can be displayed up to the previous two years:

- Accumulated operation time (min.)
- Accumulated thermo-ON time (min.)
- Average air intake temperature of indoor unit
- Average air intake temperature of outdoor unit
- Average setting temperature
- Average RC sensor temperature (It may not be available depending on RC settings.)



IMPROVED SCHEDULE SETTING

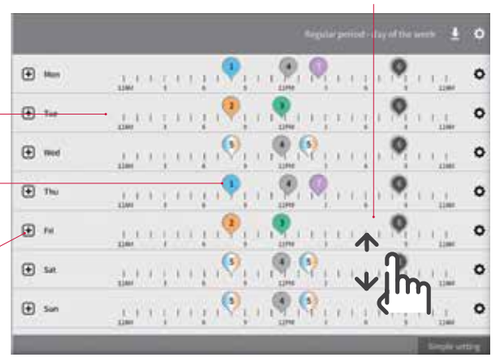
Three long-term category settings are now available: Annual, Summer, and Winter.

Drag to change the schedule
Flick and swipe to see a different screen

Touch and hold the memory axis to add the memory to the schedule

Schedules can be color coded for easy confirmation

Touch the + button to see the detailed schedule



CENTRAL STATION EX FOR LARGE-SCALE BUILDINGS PSC-A128EX

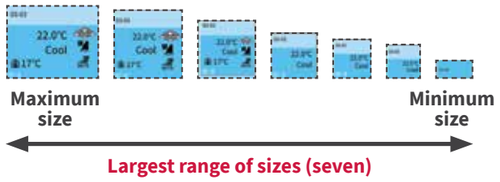
INTUITIVE INTERFACE FOR BETTER MONITORING

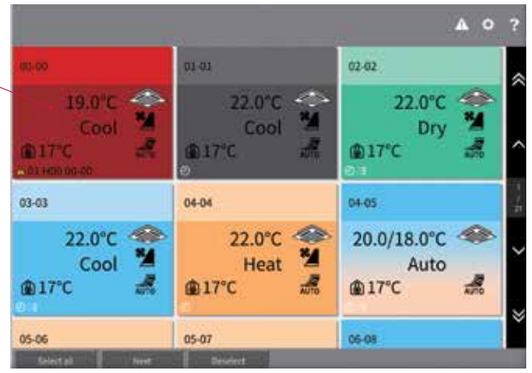
Three monitoring styles are available.

1. Panel style

The panel color clearly shows the air conditioner operation mode.

One maximum-sized panel can show the following items with colors and icons for easy confirmation:
- Room name • Run/stop • Mode • Temperature • Fan speed • Louver
- Air intake temperature (RC sensor temperature or indoor temperature)
- Current status icon

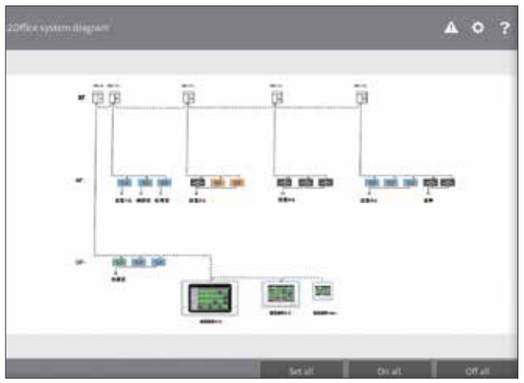




2. Layout style

Upload your own layout images in multiple formats (BMP, JPEG, PNG) and easily arrange indoor units by dragging them on the touch panel.

Floor view

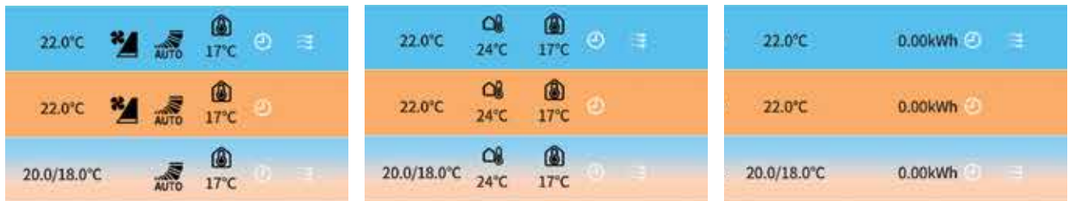


System diagram

Actual room image

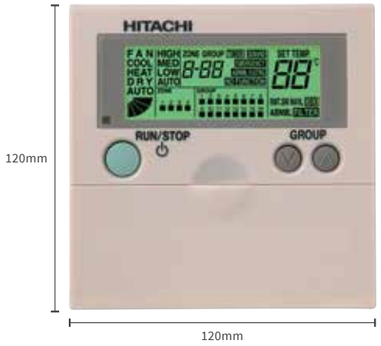
3. List style

Setting/control information is shown in a list that can be filtered and sorted for easy confirmation and comparison. In the list display, normal temperature and power consumption are provided so users can select formats according to their desired items.



Normal mode | Temperature mode | Power consumption mode

CENTRAL STATION FOR SMALL-MEDIUM-SCALE BUILDINGS PSC-A64S



If your site has a dedicated building manager, the Central Station PSC-A64S is suitable for providing convenient monitoring of indoor climates. It controls up to 160 indoor units and up to 8 sub-controllers can be connected via H-LINK. In addition to setting the operation mode and temperature, PSC-A64S also gives you advanced control over air quality and louver orientation. Should a problem occur, a dedicated alarm code helps you identify the issue.

SPECIFICATIONS

Outer Dimensions (H×W×D)

(mm) 120.0×120.0×70.5

CAPACITY

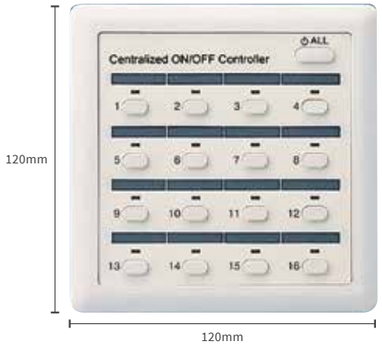
RC group	64
Group	64
Block	4 Patterns
Indoor Unit	160
Outdoor Unit	64

FUNCTIONS

Monitor Function	• Run/Stop/Abnormality • Setting Temperature • RCS Operation Prohibited Setting • Accumulated Operating Time • Operation Mode • Setting Fan Speed • Setting Louver • Filter Sign • Alarm Code
Control Function	• Run/Stop* • Fan Speed • Operation Mode • Louver • Temperature Setting • RCS Operation Prohibited • Filter Sign Reset

* "All Groups Run/Stop" command signal exception function for selected groups is available by "Exception of Run/Stop Operation." function.

CENTRALIZED ON/OFF CONTROLLER PSC-A16RS



· 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 controllers 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.

*Be 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.

SPECIFICATIONS

Outer Dimensions (H×W×D)

(mm) 120.0×120.0×68.5

CAPACITY

RCS group	16
Group	64
Block	-
Indoor Unit	160
Outdoor Unit	-

FUNCTIONS

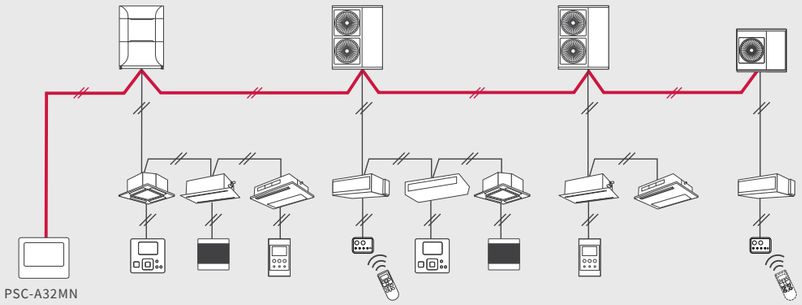
Monitor Function	• Run/Stop • Alarm Notification
Control Function	• Individual Run/Stop • Simultaneous All Run/Stop

H-LINK

WHAT IS H-LINK?

H-LINK is a "Hitachi" original communication system that can be used to control multiple outdoor and indoor units from one control point. Its use assists installers and service engineers by simplifying commissioning and service maintenance. For building owners and occupants, it provides outstanding versatility enabling the connection of various types of central control options, enabling better system management. Our proprietary high-performance communication system enables the connection of control wiring between indoor and outdoor units, and between a centralized control system and indoor/outdoor units across two or more refrigerant systems.

Basic Wiring



ADVANTAGES

1. A multi air conditioner for a building and a package air conditioner for a store or office. It can be used with a home air conditioner.
2. There are no restrictions on the delivery route or order for wiring.
3. Just connect to a terminal block.
   (An adapter and a dedicated connector are not necessary.)

RECOMMENDED FACILITY (EXAMPLE)

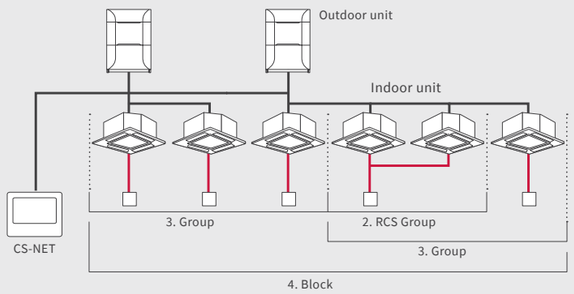
Educational institutions such as primary schools where installation work cannot be performed on weekdays.

Hotels where it is preferable to complete installation work during late evenings.

Rehabilitation facilities or hospitals where it is necessary to minimize the burden on users.

DEFINITION OF TERMS IN HITACHI CENTRALIZED CONTROL SYSTEMS

1. CS-Net/Central Station
   → Hitachi original central controller
2. RCS Group (Remote Controller System Group)
   → Stands for a number of indoor units (up to 16 units) connected using "same remote controller" wiring. In this group, connected indoor units are all controlled in the same way.
3. Group
   → Stands for the multiple "RCS groups" that are registered in the central controller network setting.
4. Block
   → Stands for the multiple "groups" that are registered in the central controller network setting.

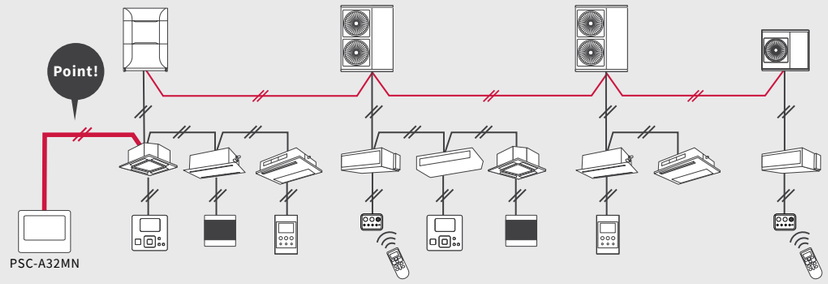


POINT

Flexible Wiring Routes

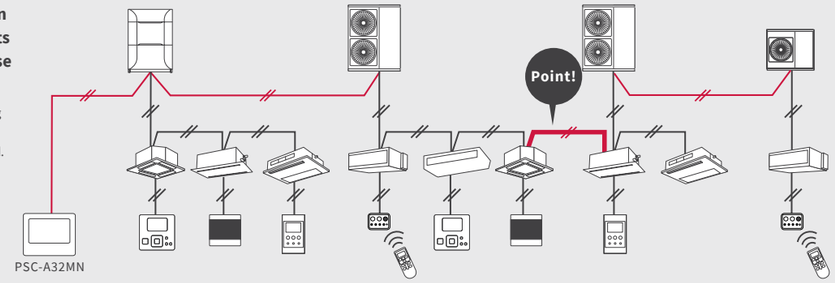
(1) If indoor units are located in one place and the indoor unit to be controlled is in the room where "Centralized Controller" is installed

→ Overall control is possible by connecting "Centralized Controller" to the indoor unit.
→ Delivery distance can be greatly reduced.



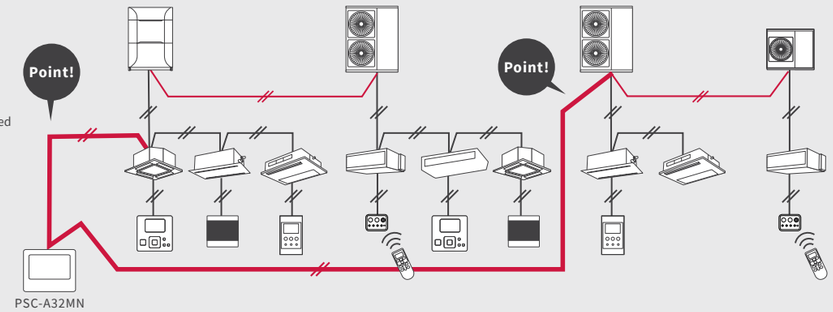
(2) If indoor units are located in two places and any indoor units of each system are located close together

→ Overall control is possible by connecting part of the indoor units of each system.
→ Delivery distance can be greatly reduced.



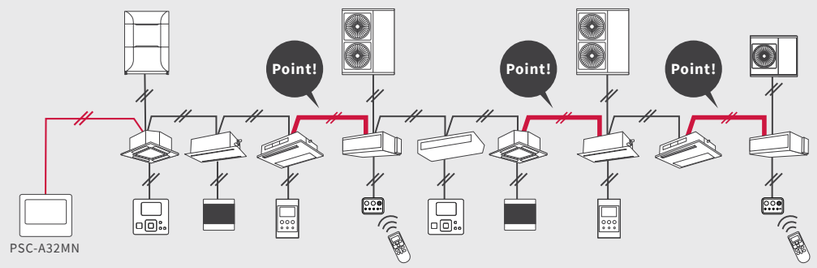
(3) If two systems are completely separated

→ Overall control is possible by separately connecting the two systems to "Centralized Controller".
→ It is possible to select a wiring route based on the wiring distance and the ease of installation.



(4) If indoor units are located discretely

→ Overall control is possible by connecting indoor units.
→ Installation is possible through indoor wiring only without outdoor wiring.



BMS ADAPTER for BACnet®

HC-A64BNP1
Control up to 64 Indoor Units

SPECIFICATIONS

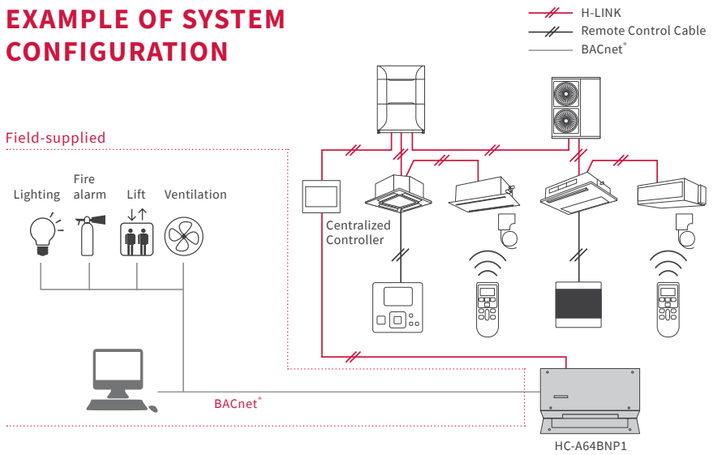
Outer Dimensions (H×W×D)

(mm) 68.0×240.0×154.0

FUNCTIONS

Corresponding BACnet® Standard	ANSI/ASHRAE Standard 135-2004 BACnet®
Control Item at Upper System	• Run Stop (Setting) • Operation Mode (Setting) • Fan Speed Level (Setting) • Indoor Temperature (Setting) • Prohibiting RC Operation (Setting) • Filter Sign Reset
Monitoring Item at Upper System	• Run Stop (State) • Operation Mode (State) • Fan Speed Level (State) • Indoor Temperature (State) • Prohibiting RC Operation (State) • Filter Sign • Indoor Air Intake Temperature • Alarm Signal • Alarm Code • Communication State

EXAMPLE OF SYSTEM CONFIGURATION



BMS ADAPTER for LONWORKS®

HARC70-PE1
Bigger Connection Capacity (Up to 128 Indoor Units)

SPECIFICATIONS

Outer Dimensions (H×W×D)

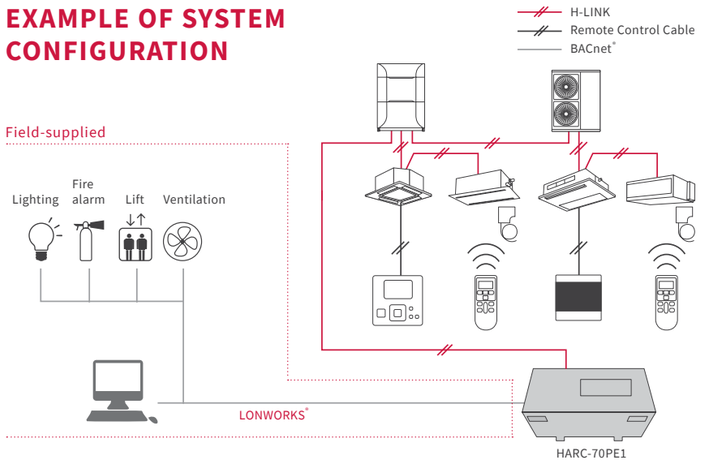
(mm) 80.0×170.0×75.0

FUNCTIONS

Connection Method to Upper System	Connection by SNVT (Standard Network Variable Type) to LONWORKS® Network
Quantity of Connection	8 Remote Control Groups (Max. 128 indoor Units)
Control Item in Upper System (ng: 0~7)	• On/Off Order (nviOnOff_ng) • Operation Mode Setting (nviMode_ng) • Temperature Setting (nviSetPoint_ng) • All On/Off Order (nvi All OnOff)
Monitoring Item in Upper System (ng: 0~7)	• On/Off State & Alarm (nvoOnOff_ng) • Operation Mode State (nvoMode_ng) • Temperature Setting (nvoSetPoint_ng) • Individual Thermostat State (nvoThermo_ng)

· The number of maximum connectable refrigerant systems is 8 (0 to 7). The available setting range of refrigerant system number and indoor unit addresses is 0 to 15.

EXAMPLE OF SYSTEM CONFIGURATION



7 DAY TIMER

PSC-A1T
Scheduling Operation with PSC-A64S/PSC-A16RS

SPECIFICATIONS

Outer Dimensions (H×W×D)

(mm) 120.0×120.0×17.0

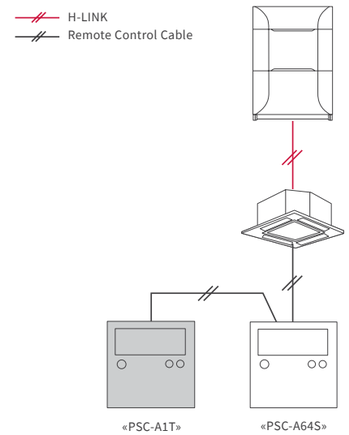
· By using PSC-A1T with PSC-A64S or PSC-A16RS controllers, the air conditioners controlled by them can be operated according to a schedule.

· 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-A64S and PSC-A16RS).

· Two types of weekly schedule (A and B) can be set, and can easily be changed for summer and winter.

· The settings are all digitally displayed, allowing operations and settings to be checked easily.

· The power failure backup function prevents the timer from being stopped due to a power failure lasting up to 2 weeks.

EXAMPLE OF SYSTEM CONFIGURATION