# **Company Name**

**CUSTOMER SERVICE** 

SALES OFFICE

SPARE PARTS

**DISTRIBUTOR** 

## CERTIFICATION



Concerning [Quality Management Systems] ISO 9000 series Hitachi-Johnson Controls Air Conditioning, Inc. Shimizu Factory JQA-1084 obtained in November 1995



Concerning [Environmental Management Systems] ISO 14000 series Hitachi-Johnson Controls Air Conditioning, Inc. Shimizu Factory EC97J1107 obtained in October 1997



Concerning [Occupational Health and Safety Management Systems] ISO45001/ OHSAS 18001 Hitachi-Johnson Controls Air Conditioning, Inc. Shimizu Factory WC18J0002 obtained in July 2018

 $^{\star}$ Not all the products listed in this catalogue are not manufactured in Shimizu Factory. Please consult the distributor for more details.

WARRANTY

SOCIAL MEDIA

# **HITACHI**

# SET FREE Σ

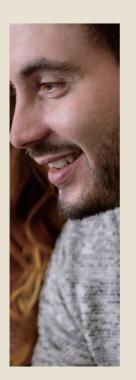
# VARIABLE REFRIGERANT FLOW SYSTEM

# AIR SOURCE HEAT PUMP TYPE

High efficiency model: FSNP series Standard model: FSNS 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.



# **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.

# 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.

# **INDEX**

03	MESSAGE
07	VRF OUTDOOR UNITS
09	AIR SOURCE HEAT PUMP TYPE
35	VRF INDOOR UNITS
43 49 57	DUCTED CEILING CASSETTE CONCEALED & EXPOSED
77	VENTILATIONS
83	CONTROLLERS
85 91 99 101	CENTRALIZED CONTROLLERS INDIVIDUAL CONTROLLERS OTHERS H-LINK

# The shape of things to come

# We've named our latest VRF system SET FREE $\Sigma$

Continuing the evolution of the SET FREE series, the sigma symbol  $(\Sigma)$  references the shape of our revolutionary, ultra-efficient new heat exchanger.







# World's trusted brand

Engineered with precision in Japan, Hitachi has been one of the best-selling VRF brands around the world since our first launch in 1983.



# **HVAC** professionals: We care about you

Each of our VRF equipment is carefully designed for ease of installation and maintenance. Piping routes, access to components, condensate management ... our products make your job easy!



# Advanced features, more comfort for the occupants

From exclusive GentleCool temperature control function to 4-way cassette with individual louver control, our VRF systems embeds various features to enhance the well being of occupants, based on their needs.



# Welcome to our "Central Stations"

Hitachi best-in-class & appraised range of centralized controllers make VRF system control easy. Our various Central Stations models can suit all types of user profiles and system sizes, so that every operator can control and adjust operations as they wish.



# SmoothDrive<sup>™</sup>: patented technology for unique benefits

Our exclusive VRF compressor control technology SmoothDrive<sup>™</sup> provide unrivaled efficiency and comfort. Our systems meet the most stringent energy efficiency regulatory standards. But they do more than that. Thanks to SmoothDrive<sup>™</sup>, you can save more energy during partial load conditions, reflecting the real life usage of VRF systems. When some indoor units are turned off, when the outdoor temperature changes, when the indoor temperature reaches comfortable level ... SmoothDrive™ provides extra savings and comfort, which made Hitachi VRF receive energy-efficiency awards in Japan.



# airCloud Pro, new generation of monitoring (exclusive!)

From your smartphone or web, manage your VRF systems in full simplicity. Operators can select zones and adjust AC operation, or track systems errors remotely. airCloud Pro can accommodate unlimited number of VRF systems and unlimited number of users.



# airCloud Select (upcoming)

Let's jump in our "Selection Software", where system engineers can perform their work of air conditioning selection customized for each project. With our training material & selection software, professionals can meet their clients' requirements with confidence.



# Whichever is your project

From small shops to sky scrapper, from snowy days to hottest climates, there's a Hitachi VRF solution for you. Our offer provides great flexibility: multiple types of outdoor units and indoor units, piping distance, adaptive external static pressure, best-in-class choice of CH-Box, and variety of controllers for each type of users.



# Support building owners with multiple tenants

Our exclusive Central Station EX enables owners to easily manage each tenant's air conditioning electricity consumption and invoicing. Several calculation methods are available for better accuracy.



# Demand-response energy management

Smart cities, smart buildings... and smart Hitachi VRF systems! Discover our two advanced power saving functions: peak-load cut to prevent peak demand, and capacity moderation to reduce the power input demand. In addition, the large majority of our controls provide simplified scheduling capability, so that operations can schedule operations according to their utility plan.

# Complete VRF offer Select and combine as you need!

# Versatile Outdoor units

- Top flow modular
- Side flow "mini"
- SideSmart modular(exclusive)
- Centrifugal(exclusive)
- Water-source
- 3 types: Cooling only, heat pump(2-pipes), heat recovery(3-pipes)

# Variety of indoor units

- Over 30 models available around the globe
- Wide range of ceiling cassettes and ducted
- units for all types of configuration Ventilation
- Air Handling Unit Integration to Hitachi VRF

# User-friendly controls

- · Central Stations: large choice of interfaces for simple centralized control operations
- Individual controllers: variety of types
- airCloud Pro: cloud-based monitoring available in smartphone app and web

<sup>\*</sup>Product availability varies across countries. Please visit www.hitachiaircon.com or contact your local Hitachi Cooling & Heating representative to receive more information.

# VRF OUTDOOR UNITS

# VRF OUTDOOR UNITS

09 AIR SOURCE H	HEAT PU	JMP	TYPE
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10 HIGH EFFICIENCY

11 BETTER OPERATION

13 RELIABILITY

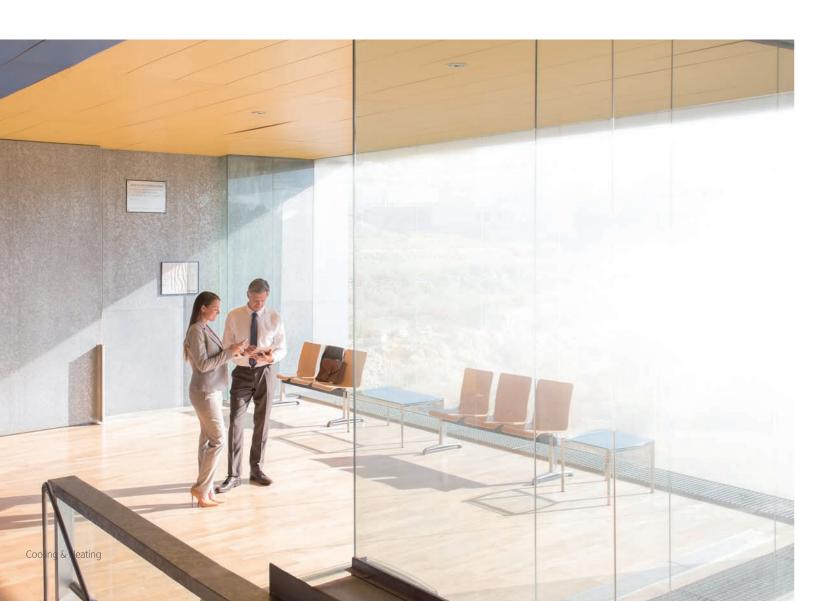
15 DESIGN FLEXIBILITY

17 SPECIFICATIONS

17 HIGH EFFICIENCY MODEL: FSNP SERIES

25 STANDARD MODEL: FSNS SERIES

33 OPTIONAL PARTS FOR HEAT PUMP TYPE





# **NEWLY IMPROVED**

From Dublin to Dubai, people rely on Hitachi Cooling & Heating to work more productively, play and relax in comfort and sleep soundly. That's why our "SET FREE" range is designed to perform faultlessly under the most challenging conditions, with superior energy efficiency.

Designed to fit all types all buildings, our outdoor units have been recently upgraded to provide extra energy savings under part-load conditions.

# AIR SOURCE HEAT PUMP TYPE

# LINE UP

High efficiency model: FSNP series Standard model: FSNS series

# LARGER CAPACITY UP TO 72HP CLASS (FSNP) / UP TO 96HP CLASS (FSNS)

# Single Module

up to 18HP class (FSNP) up to 24HP class (FSNS)



# Three Modules Combination

up to 54HP class (FSNP) up to 72HP class (FSNS)



# Two Modules Combination

up to 36HP class (FSNP) up to 48HP class (FSNS)



# Whole range

up to 72HP class (FSNP) up to 96HP class (FSNS)



<sup>\*</sup>The image above = max capacity in each combination

# **SUMMARY TABLE**

Item	Unit	High efficiency model: FSNP series	Standard model: FSNS series
Capacity	HP class	5-72	8-96
Nominal Cooling Capacity	kW	14.0 - 201.0	22.4-268.0
Nominal Heating Capacity	kW	16.0 - 225.0	25.0-305.0
Maximum Connectable Indoor Unit Quantity		64	64
Combination Capacity Ratio Between ODU and IDU *	%	50-150	50-130
Total Piping Length	m	1,000	1,000
Maximum Piping Length Between ODU and IDU	m	165	165
Maximum Equivalent Piping Length Between ODU and IDU	m	190	190
Maximum Piping Length Between 1st Branch and IDU	m	90	90
Maximum Height Difference Between ODU and IDU ** (when ODU is higher than IDU)	m	110	110
Maximum Height Difference Between ODU and IDU ** (when IDU is higher than ODU)	m	110	110
Maximum Height Difference Between IDU and IDU	m	30	30
Cooling Operation Range ***	°C DB	-5.0 to 52.0	-5.0 to 48.0
Heating Operation Range ***	°C WB	-20.0 to 15.0	-20.0 to 15.0

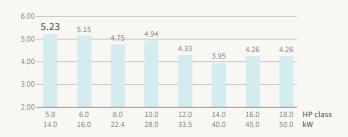
<sup>\* 50-150% (5-54</sup>HP class)/50-130% (56-72HP class) (FSNP series)

# HIGH EFFICIENCY

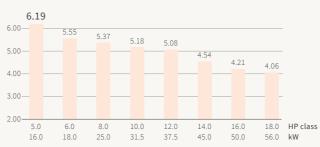
# **EFFICIENCY RATIO**

# High efficiency model: FSNP series

# Cooling EER



### Heating COP

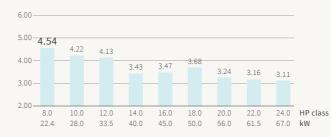


- NOTES: 1. The above values indicate the EER/COP per outdoor unit when it is combined with specified indoor units.

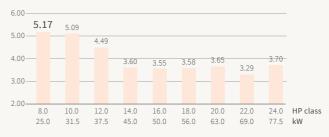
  2. The specification of EER/COP of each country is different according to the regulation.
- Please contact to the Sales person for more information

### Standard model: FSNS series

### Cooling EER



# Heating COP



- 1. The above values indicate the EER/COP per outdoor unit when it is combined with
- specified indoor units.

  2. The specification of EER/COP of each country is different according to the regulation. Please contact to the Sales person for more information.



<sup>\*\*</sup> Please consult your distributor or dealer if the height different is over 50 metre. The maximum piping length for 56 to 72HP class (FSNP) / 56 to 96HP class (FSNS) is 90 metre.
\*\*\* For more details, please consult your distributors or dealer, or, refer to technical manuals

# BETTER OPERATION



# SMOOTHDRIVE™: SUPERIOR COMPRESSOR CONTROL

Energy savings in real life: it's more than ratings. You can uncover that we want to bring true value to your customers. Meeting high energy efficient standards in one thing, but on top of that, "SmoothDrive™ supports energy savings in real life conditions, as real life is made of fluctuations.

# How does "SmoothDrive™" work?

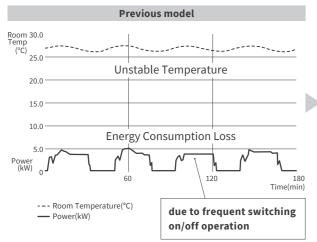
Brushed-up existing Variable Evaporating/ Condensing Temperature Control,

"SmoothDrive $^{\text{TM}}$ " directly regulates the mass-flow of refrigerant amount, by Hitachi original loadspeculation technology!

- "SmoothDrive™" helps scroll compressor running continuously and smoothly even at Part load condition
- Our original load-speculation technology helps reduce energy loss caused by scroll compressor switching on/off
- Consequently, constant room temperature & energy saving can be achieved

# Allow proper amount of refrigerant to flow to IDU at each loading condition Calculate the correct mass flow of refrigerant according to the load information. Indoor unit Indoor unit Outdoor unit

### Actual example of the new compressor control (at 33% Part Load in cooling operation)



# **Constant Room Temperature Smoother operation** 180 --- Room Temperature(°C) -39% Power(kW) energy consumption

 $\textbf{SmoothDrive}^{\text{TM}}$ 

# Simulation Result for All Load Conditions

- Difference in power consumption versus load factor
- Power consumption is reduced when the load factor is 40% or less (note: break point 40% could be changed for different indoor space/thermal
- ullet The effect from SmoothDrive  $^{ extsf{TM}}$  2.0 Control is not seen at the level of load below 10% of loading factor.

# - •- Before SmoothDrive™ SmoothDrive™ 2.0

Cooling operation

# NEW SMOOTHDRIVE<sup>™</sup> 2.0 CONTROL

# Simulation Result for Efficiency Improvement

• Most improved EER is at the loading factor around 25%.



# THE BEAUTY OF SILENCE

You can set up the night shift mode from Outdoor Unit PCB. The sound power level for a particular time zone can be set, based upon the usage environment.



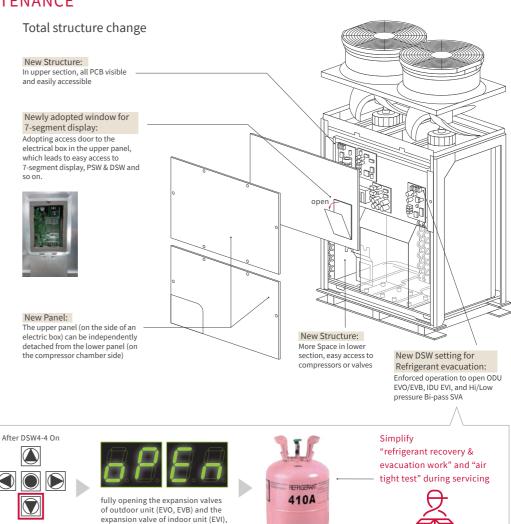
	FSNS 14HP class(40.0kW)	FSNS 42HP class(118.0kW)	
Noise Reduction mode	Sound Power Level	Sound Power Level	,
Nominal	85dB(A)	89dB(A)	
Step1	77.5dB(A)	86dB(A)	
Step 2	72.5dB(A)	81dB(A)	
Step 3	67.5dB(A)	76dB(A)	

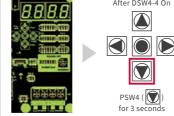
 $^{\star}$  The range of performance and operation is limited, since the rotation frequency of the compressor and ODU fan are forcibly decreased.

\* In use of PC-ARF1 and limited indoor units only.

# EASE OF MAINTENANCE

With a 7-segment display, revised upper and lower panels and convenient access to compressors and valves, SET FREE Σ outdoor units are easier to access, manage and maintain.









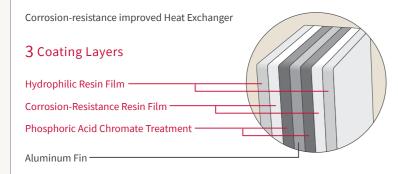
Mechanical Contractor & Installer

# RELIABILITY

### ABOUT THE INSTALLATION LOCATION Resistance to salt damage specifications Resistance to heavy salt damage specifications A place that is susceptible to sea A location that is not exposed to sea breezes, but that appears to be suitable for such an atmosphere (But the device is not directly exposed to water containing salt.) sea · A location where the outdoor unit is rinsed by the rain · A location where the outdoor unit receives little rain · A location that is not exposed to sea breezes · A location that is directly exposed to sea breezes · A location where the distance from the installation location of the · A location where the distance from the installation location of the outdoor unit to the sea is between approximately 300 meters and outdoor unit to the sea is up to approximately 300 meters

# **CORROSION RESISTANCE**

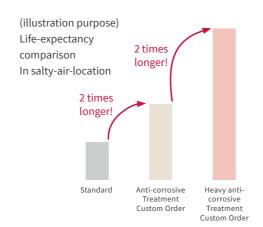
one kilometer



· A location where the outdoor unit is in the shelter of a building

\*Considered JRA9002: Criteria and Testing of Corrosion-proof for Refrigeration and Air Conditioning

\*Please consult Hitachi distributors for more details \*Both "Anti-corrosive treatment" and "Heavy anti-corrosive treatment" are by custom order



· A location where the outdoor unit is mounted on the front of a

· A location where corrugated iron roofs and the steel parts of

balconies near the installation location of the outdoor unit are often

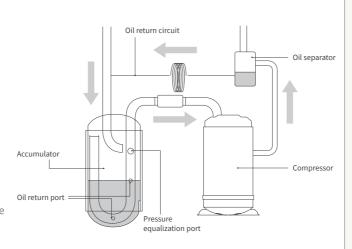
building (beach side)

repainted

# OIL RETURN CONTROL

Oil return control is very important to keep the reliability of scroll compressor. But it is likely to cause you an uncomfortable situation by keeping you from comfortable air. Our patented oil return control not only consumes less energy & procures much less noise in the surrounding environment, but also it lasts only short periods, so, you can stay comfortable continuously.

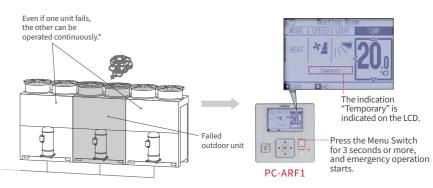
- Oil return control recovers the refrigerant oil running into the piping in the customer space to the outdoor units side forcibly.
- Oil return operation activates for only 60 seconds (in cooling mode) or 120 seconds (in heating mode), when compressor rotation keeps running in lower status.
- During oil return operation, indoor units can continue to operate normally



### SYSTEM FAILURE PREVENTION

# In case of a combination unit

- The Backup Operation Function prevents the system from coming to a complete stop when outdoor unit failure occurs
- If one outdoor unit should fail, the system can continue to operate using the remaining outdoor units
- An alarm is triggered and emergency operation can be activated via an individual remote control
- At least 2 outdoor units (as combined unit) are required for this function
- Emergency operation can be performed within 8 hours after unit stoppage



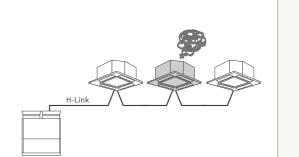
\* Emergency operation can be performed within 8 hours after unit stoppage.

Emergency operation cannot be performed when 8 hours have elapsed since unit stoppage

# UNINTERRUPTED OPERATION

The uninterrupted operation function ensure the entire VRF system's continuous operation even under the situation one of the indoors unit is failed or powered off, thanks to outdoor advanced protection control & Our original communication system H-LINK.

- $^{\star}1$  System will continue running when one indoor unit is powered off, but it may be shut down due to system protection depending on the operation conditions.
- \*2 Please restore the indoor unit power as soon as possible, continue to turn off indoor may significantly affect

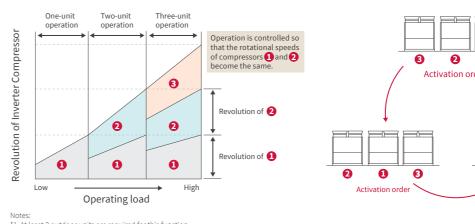


# ROTATIONAL OPERATION\*1 TO DISTRIBUTE LOAD OF OUTDOOR UNITS

Regulating the operation time of each outdoor unit leads to load reduction on compressors.<sup>2</sup> During multiple unit operation, maintaining the same rotation frequency of the compressors results in an equivalent load on each

## Compressor Rotation Frequency Control (Example)

compressor, thereby helping enhance outdoor unit durability.



\*1 At least 2 outdoor units are required for this function.
\*2 Comparison between the rotation operation function and non-rotation operation function based on the same system.

# At the time of compressor start-up, or when 2 hours haveelapsed from start of • Activation order 3

RELIABILITY

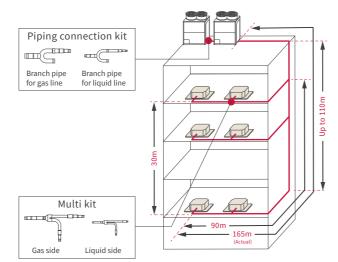
# **DESIGN FLEXIBILITY**

# PIPING CONNECTION WORKABILITY

# Improvement of restrictions on piping construction

- Suitable for a high-rise building or complex facilities.
- Leads to cost/time saving for designers, with more efficient design.

1,000m	
ard: 50m nal: 110m	
ard: 40m nal: 110m	



# WIDER EXTERNAL STATIC PRESSURE

Designed to be located internally and can operate under 4 ESP settings, up to 80Pa, with multiple options for improved energy savings

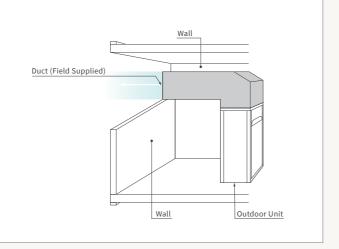
Shorter required piping lengths provide greater design flexibility and may also reduce installation costs

New Model 4 Options available

Cooling & Heating

0ра 30ра 60ра 80ра

 $^{\star}$  Please refer to the technical catalogue for more details.



# **EASY TRANSPORTATION** Lift Smaller Lighter Crane Can be transported in an elevator New package design with crane FSNS: 18HP class(50.0kW) attachment points

# **DEDICATED TO HIGH PERFORMANCE** AND RELIABILITY

Hitachi's G1TOWER was completed in 2010. One of the world's highest elevator research towers, it's the setting for tests on highperformance, reliable elevators that fit the needs of increasingly high-rise, large-scale buildings inside and outside of Japan.

We also use this tower to test our actual products in line with these trends to evaluate their performance and reliability.

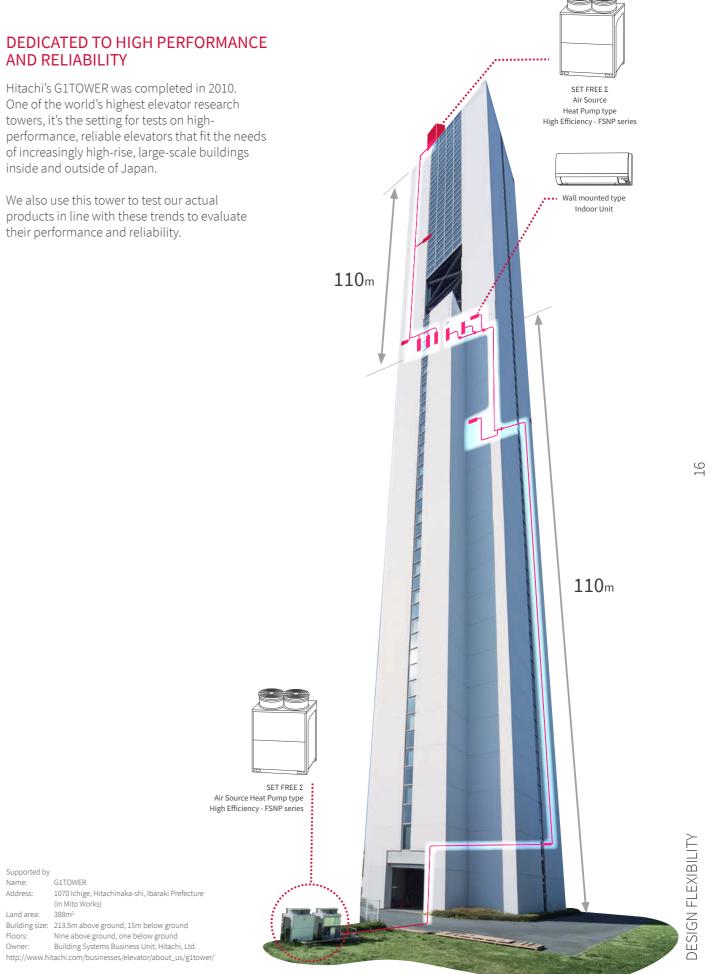
Supported by

Land area: 388m²

G1TOWER

(in Mito Works)

Building size: 213.5m above ground, 15m below ground



# **SPECIFICATIONS**

# High efficiency model: FSNP series

						1 T				
HP class				5	6	8	10	12	14	
Model				RAS-5FSNP	RAS-6FSNP	RAS-8FSNP	RAS-10FSNP	RAS-12FSNP	RAS-14FSNP	
Power Supply		-		3~/N, [400V/50Hz]	[380-415V/50Hz]	380V/60Hz] 3~[220	V/60Hz]			
Nominal Cooling Cap	acity		kW	14.0	16.0	22.4	28.0	33.5	40.0	
Nominal Heating Cap	acity		kW	16.0	18.0	25.0	31.5	37.5	45.0	
	Color	Munsell Code		Natural Gray (1.0)	( 8.5/0.5)					
Cabinet	Outer Dimensions	H×W×D	mm	1,675×950×765	1,675×950×765	1,675×1,210×765	1,675×1,210×765	1,675×1,210×765	1,675×1,210×765	
	Sound Power L	Level	dB(A)	75	78	77	82	83	85	
Sound Level	Sound Pressur	re Level	dB(A)	54	56	55	59	60	62	
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	190	190	255	259	260	270	
Maiabt		220V/60Hz	kg	185	185	250	254	255	265	
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	206	206	273	277	278	288	
		220V/60Hz	kg	201	201	268	272	273	283	
	Туре			R410A						
Refrigerant	Flow Control			Micro-Computer Control Expansion Valve						
	Charge (before	e Shipment)	kg	4.7	5.0	8.5	8.5	9.3	9.3	
	Туре			Hermetic (Scroll)						
Compressor	Model			AA50PHD	AA50PHD	AA50PHD	DB65PHD	DC80PHD	DC80PHD	
Compressor	Quantity			1	1	1	1	1	1	
	Motor Output	(Pole)	kW	1.9(6)	2.1(6)	3.1(6)	3.8(6)	5.1(6)	6.4(6)	
Refrigeration Oil	Туре			FVC68D						
geradion on	Charge		L/Unit	6.0	6.0	6.0	6.0	6.0	6.9	
Heat Exchanger				Multi-Pass Cross-	Finned Tube					
	Туре			Propeller Fan						
Condenser Fan	Quantity			1	1	2	2	2	2	
	Air Flow Rate		m³/min.	150	170	185	219	219	243	
	Motor Output	(Pole)	kW	0.20(8)	0.28(8)	0.18(8)×2	0.26(8)×2	0.26(8)×2	0.34(8)×2	
Main Refrigerant Piping	Liquid Line		mm	ф9.52	ф9.52	ф9.52	ф9.52	ф12.7	ф12.7	
Heat Pump System (2 Pipes)	Gas Line		mm	ф15.88	ф19.05	ф19.05	ф22.2	ф25.4	ф25.4	
Package	Dimensions	H×W×D	mm	1,800×1,030×810	1,800×1,030×810	1,800×1,290×810	1,800×1,290×810	1,800×1,290×810	1,800×1,290+810	
	Measurement		m³	1.5	1.5	1.9	1.9	1.9	1.9	

Outdoor Air Inlet Temperature: 35.0°C DB
Piping Length: 7.5 metre
Piping Lift: 0 metre

Notes:

1. The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB Indoor Air Inlet Temperature: 20.0°C DB

Outdoor Air Inlet Temperature: 35.0°C DB

Outdoor Air Inlet Temperature: 35.0°C DB

Piping Length: 7.5 metre Piping Lift: 0 metre

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





HP class				16	18	20	22	24		
Model				RAS-16FSNP	RAS-18FSNP	RAS-20FSNP	RAS-22FSNP	RAS-24FSNP		
Combination of Base	Unit			-	-	RAS-10FSNP RAS-10FSNP	RAS-10FSNP RAS-12FSNP	RAS-12FSNP RAS-12FSNP		
Power Supply				3~/N, [400V/50Hz] [38	80-415V/50Hz] [380V/60	Hz] 3~[220V/60Hz]				
Nominal Cooling Cap	acity		kW	45.0	50.0	56.0	61.5	67.0		
Nominal Heating Cap	pacity		kW	50.0	56.0	63.0	69.0	77.5		
	Color	Munsell Code		Natural Gray (1.0Y 8.5	5/0.5)					
Cabinet	Outer Dimensions	H×W×D	mm	1,675×1,600×765	1,675×1,600×765	1,675×2,440×765	1,675×2,440×765	1,675×2,440×765		
	Sound Power I	Level	dB(A)	85	86	85	86	86		
Sound Level	Sound Pressu	re Level	dB(A)	65	65	62	62.5	63		
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	345	360	259+259	259+260	260+260		
		220V/60Hz	kg	340	355	254+254	254+255	255+255		
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	365	380	277+277	277+278	278+278		
		220V/60Hz	kg	360	375	272+272	272+273	273+273		
	Туре			R410A						
Refrigerant	Flow Control			Micro-Computer Control Expansion Valve						
	Charge (before	e Shipment)	kg	10.0	10.6	17.0	17.8	18.6		
	Туре			Hermetic (Scroll)						
	Model			AA50PHD+AA50PHD	DC80PHD+DC80PHD	DB65PHD+DB65PHD	DB65PHD+DC80PHD	DC80PHD+DC80PH		
Compressor	Quantity			2	2	2	2	2		
	Motor Output	(Pole)	kW	3.7(6)×2	4.4(6)×2	3.8(6)×2	3.8(6)×1+5.1(6)×1	5.1(6)×2		
2 ( 0.1	Туре			FVC68D						
Refrigeration Oil	Charge		L/Unit	7.9	7.9	12.0	12.0	12.0		
Heat Exchanger				Multi-Pass Cross-Finn	ned Tube					
	Туре			Propeller Fan						
C	Quantity			2	2	4	4	4		
Condenser Fan	Air Flow Rate		m³/min.	326	362	219×2	219×2	219×2		
	Motor Output	(Pole)	kW	0.47(8)×2	0.62(8)×2	0.26(8)×+0.26(8)×2	0.26(8)×2+0.26(8)×2	0.26(8)×2+0.26(8)×2		
Main Refrigerant Piping	Liquid Line		mm	ф12.7	ф15.88	ф15.88	ф15.88	ф15.88		
Heat Pump System (2 Pipes)	Gas Line		mm	ф28.58	ф28.58	ф28.58	ф28.58	ф28.58		
Packago	Dimensions	H×W×D	mm	1,800×1,680×810	1,800×1,680×810	-	-	-		
Package	Measurement		m <sup>3</sup>	2.4	2.4	_	_	_		

Notes:

1. The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB Indoor Air Inlet Temperature: 20.0°C DB

19.0°C WB Outdoor Air Inlet Temperature: 7.0°C DB

Outdoor Air Inlet Temperature: 35.0°C DB

Piping Length: 7.5 metre (RAS-16-18FSNP), Piping Length: 7.5 metre (RAS-16-18FSNP), 10.0 metre (RAS-20-24FSNP)

Piping Lift: 0 metre

Piping Lift: 0 metre

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

3. Except for the specified combination in the table (20~72HP class 56.0~201.0kW), there is no other combination of the base unit.

4. The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

# High efficiency model: FSNP series

				5	3			-	3
HP class				26	28	30	32	34	36
Model				RAS-26FSNP	RAS-28FSNP	RAS-30FSNP	RAS-32FSNP	RAS-34FSNP	RAS-36FSNP
Combination of Base	Unit			RAS-10FSNP RAS-16FSNP	RAS-12FSNP RAS-16FSNP	RAS-12FSNP RAS-18FSNP	RAS-14FSNP RAS-18FSNP	RAS-16FSNP RAS-18FSNP	RAS-18FSNP RAS-18FSNP
Power Supply				3~/N, [400V/50Hz]	[380-415V/50Hz] [3	380V/60Hz] 3~[220	V/60Hz]		
Nominal Cooling Cap	acity		kW	73.0	77.5	85.0	90.0	95.0	100.0
Nominal Heating Cap	acity		kW	82.5	90.0	95.0	100.0	106.0	112.0
	Color	Munsell Code		Natural Gray (1.0Y	8.5/0.5)				
Cabinet	Outer Dimensions	H×W×D	mm	1,675×2,830×765	1,675×2,830×765	1,675×2,830×765	1,675×2,830×765	1,675×3,220×765	1,675×3,220×765
	Sound Power L	.evel	dB(A)	87	87	88	89	89	89
Sound Level	Sound Pressur	e Level	dB(A)	66	66	66	67	68	68
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	259+345	260+345	260+360	270+360	345+360	360+380
		220V/60Hz	kg	254+340	255+340	255+355	265+355	340+355	355+355
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	277+365	278+365	278+380	288+380	365+380	380+380
		220V/60Hz	kg	272+360	273+360	273+375	283+375	360+375	375+375
	Туре			R410A					
Refrigerant	Flow Control			Micro-Computer Control Expansion Valve					
	Charge (before	Shipment)	kg	18.5	19.3	19.9	19.9	20.6	21.2
	Туре			Hermetic (Scroll)					
Compressor	Model			DB65PHD+AA50PHD +AA50PHD	DC80PHD+AA50PHD +AA50PHD	DC80PHD+DC80PHD +DC80PHD	DC80PHD+DC80PHD +DC80PHD	AA50PHD+AA50PHD +DC80PHD+DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD
	Quantity			3	3	3	3	4	4
	Motor Output	(Pole)	kW	3.8(6)×1+3.7(6)×2	5.1(6)×1+3.7(6)×2	5.1(6)×1+4.4(6)×2	6.4(6)×1+4.4(6)×2	3.7(6)×2+4.4(6)×2	4.4(6)×2+4.4(6)×2
Refrigeration Oil	Туре			FVC68D					
	Charge		L/Unit	13.9	13.9	13.9	14.8	15.8	15.8
Heat Exchanger				Multi-Pass Cross-F	Finned Tube				
	Туре			Propeller Fan					
Condenser Fan	Quantity			4	4	4	4	4	4
	Air Flow Rate		m³/min.	219+326	219+326	219+362	243+362	326+362	362x2
	Motor Output	(Pole)	kW	0.26(8)×2 +0.47(8)×2	0.26(8)×2 +0.47(8)×2	0.26(8)×2 +0.62(8)×2	0.34(8)×2 +0.62(2)×2	0.47(2)×2 +0.62(2)×2	0.62(8)×2 +0.62(8)×2
Main Refrigerant Piping	Liquid Line		mm	ф19.05	ф19.05	ф19.05	ф19.05	ф19.05	ф19.05
Heat Pump System (2 Pipes)	Gas Line		mm	ф31.75	ф31.75	ф31.75	ф31.75	ф31.75	ф38.1

Notes:

1. The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB
19.0°C WB
Outdoor Air Inlet Temperature: 7.0°C DB
Piping Length: 10.0 metre (RAS-36-30FSNP)
Piping Lift: 0 metre

Notes:

12.0°C DB
0utdoor Air Inlet Temperature: 7.0°C DB
Piping Length: 10.0 metre (RAS-36-30FSNP)
Piping Lift: 0 metre

Piping Lift: 0 metre

Notes:

12.5 metre (RAS-32-36FS)
Piping Lift: 0 metre combined with our specified indoor units.

Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB
Outdoor Air Inlet Temperature: 7.0°C DB
6.0°C WB
Piping Length: 10.0 metre (RAS-32~36FSNP)
12.5 metre (RAS-32~36FSNP)
Piping Lift: 0 metre

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

 $3. \, \text{Except for the specified combination in the table (20~72 HP \, class \, 56.0~201.0 kW), there is no other combination of the base unit.} \\$ 

4. The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20 mm.

				5	3		5	=
HP class				38	40	42	44	46
Model				RAS-38FSNP	RAS-40FSNP	RAS-42FSNP	RAS-44FSNP	RAS-46FSNP
Combination of Base	Unit			RAS-12FSNP RAS-12FSNP RAS-14FSNP	RAS-12FSNP RAS-14FSNP RAS-14FSNP	RAS-14FSNP RAS-14FSNP RAS-14FSNP	RAS-12FSNP RAS-14FSNP RAS-18FSNP	RAS-14FSNP RAS-14FSNP RAS-18FSNP
Power Supply				3~/N, [400V/50Hz] [38	0-415V/50Hz] [380V/60	Hz] 3~[220V/60Hz]		
Nominal Cooling Cap	acity		kW	106.0	112.0	118.0	122.0	128.0
Nominal Heating Cap	acity		kW	118.0	125.0	132.0	140.0	145.0
	Color	Munsell Code		Natural Gray (1.0Y 8.5	/0.5)			
Cabinet	Outer Dimensions	H×W×D	mm	1,675×3,670×765	1,675×3,670×765	1,675×3,670×765	1,675×4,060×765	1,675×4,060×765
	Sound Power L	_evel	dB(A)	89	89	90	90	90
Sound Level	Sound Pressur	re Level	dB(A)	65.5	66	67	67.5	68
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	260+260+270	260+270+270	270+270+270	260+270+360	270+270+360
Maiaba		220V/60Hz	kg	255+255+265	255+265+265	265+265+265	255+265+355	265+265+355
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	278+278+288	278+288+288	288+288+288	278+288+380	288+288+380
		220V/60Hz	kg	273+273+283	273+283+283	283+283+283	273+283+375	283+283+375
	Туре			R410A				
Refrigerant	Flow Control			Micro-Computer Control Expansion Valve				
	Charge (before	Shipment)	kg	27.9	27.9	27.9	29.2	30.5
	Туре			Hermetic (Scroll)				
Compressor	Model			DC80PHD+DC80PHD +DC80PHD	DC80PHD+DC80PHD +DC80PHD	DC80PHD+DC80PHD +DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD
	Quantity			3	3	3	4	4
	Motor Output	(Pole)	kW	5.1(6)×2+6.4(6)×1	5.1(6)×1+6.4(6)×2	6.4(6)×3	5.1(6)×1+6.4(6)×1 +4.4(6)×2	6.4(6)×1+6.4(6)×1 +4.4(6)×2
Refrigeration Oil	Туре			FVC68D				
Refrigeration Oil	Charge		L/Unit	18.9	19.8	20.7	20.8	21.7
Heat Exchanger				Multi-Pass Cross-Finn	ed Tube			
	Туре			Propeller Fan				
	Quantity			6	6	6	6	6
Condenser Fan	Air Flow Rate		m³/min.	219×2+243	219+243×2	243×3	219+243+362	243×2+362
	Motor Output	(Pole)	kW	0.26(8)×2+0.26(8)×2 +0.34(8)×2	0.26(8)×2+0.34(8)x2 +0.34(8)×2	0.34(8)×2+0.34(8)x2 +0.34(8)×2	0.26(8)×2+0.34(8)×2 +0.62(8)×2	0.34(8)×2+0.34(8)×2 +0.62(8)×2
Main Refrigerant Piping	Liquid Line		mm	ф19.05	ф19.05	ф19.05	ф19.05	ф19.05
Heat Pump System (2 Pipes)	Gas Line		mm	ф38.1	ф38.1	ф38.1	ф38.1	ф38.1

Notes:

1. The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB
19.0°C WB Outdoor Air Inlet Temperature: 20.0°C DB
0utdoor Air Inlet Temperature: 7.0°C DB
0utdoor Air Inlet Temperature: 7.0°C DB
Piping Length: 12.5 metre (RAS-38-44FSNP),
15.0 metre (RAS-46FSNP)
Piping Lift: 0 metre

Near Temperature: 7.0°C DB
19.0°C WB
Piping Length: 12.5 metre (RAS-38-44FSNP),
15.0 metre (RAS-46FSNP)
Piping Lift: 0 metre

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

 $3. \, \text{Except for the specified combination in the table (20-72 \text{HP class}\, 56.0-201.0 \text{kW}), there is no other combination of the base unit.}$ 

<sup>4.</sup> The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

# **SPECIFICATIONS**

# High efficiency model: FSNP series

HP class				48	50	52	54
Model				RAS-48FSNP	RAS-50FSNP	RAS-52FSNP	RAS-54FSNP
Combination of Base	Unit			RAS-12FSNP RAS-18FSNP RAS-18FSNP	RAS-14FSNP RAS-18FSNP RAS-18FSNP	RAS-16FSNP RAS-18FSNP RAS-18FSNP	RAS-18FSNP RAS-18FSNP RAS-18FSNP
Power Supply				3~/N, [400V/50Hz] [380-415	V/50Hz] [380V/60Hz] 3~[220	V/60Hz]	
Nominal Cooling Capa	acity		kW	136.0	140.0	145.0	150.0
Nominal Heating Cap	acity		kW	150.0	155.0	160.0	165.0
	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)			
Cabinet	Outer Dimensions	H×W×D	mm	1,675×4,450×765	1,675×4,450×765	1,675×4,840×765	1,675×4,840×765
Cound Lovel	Sound Power L	.evel	dB(A)	90	90	90	91
Sound Level	Sound Pressur	e Level	dB(A)	68.5	69	70	70
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	260+360+360	270+360+360	345+360+360	360+360+360
Maight		220V/60Hz	kg	255+355+355	265+355+355	340+355+355	355+355+355
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	278+380+380	288+380+380	365+380+380	380+380+380
		220V/60Hz	kg	273+375+375	283+375+375	360+375+375	375+375+375
	Туре			R410A			
Refrigerant	Flow Control			Micro-Computer Control Ex	pansion Valve		
	Charge (before	Shipment)	kg	30.5	30.5	31.2	31.8
	Туре			Hermetic (Scroll)			
Compressor	Model			DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD	AA50PHD+AA50PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD
	Quantity			5	5	6	6
	Motor Output	(Pole)	kW	5.1(6)×1+4.4(6)×2+4.4(6)×2	6.4(6)×1+4.4(6)×2+4.4(6)×2	3.7(6)×2+4.4(6)×2+4.4(6)×2	4.4(6)×2+4.4(6)×2+4.4(6)×2
Defrice making Oil	Туре			FVC68D			
Refrigeration Oil	Charge		L/Unit	21.8	22.7	23.7	23.7
Heat Exchanger				Multi-Pass Cross-Finned Tu	be		
	Туре			Propeller Fan			
	Quantity			6	6	6	6
Condenser Fan	Air Flow Rate		m³/min.	219+362×2	243+362×2	326+362×2	362×3
	Motor Output	(Pole)	kW	0.26(8)×2+0.62(8)×2 +0.62(8)×2	0.34(8)×2+0.62(8)×2 +0.62(8)×2	0.47(8)×2+0.62(8)×2 +0.62(8)×2	0.62(8)×2+0.62(8)×2 +0.62(8)×2
Main Refrigerant Piping	Liquid Line		mm	ф19.05	ф19.05	ф19.05	ф19.05
Heat Pump System (2 Pipes)	Gas Line		mm	ф38.1	ф38.1	ф38.1	ф38.1

Notes:  $1. \, \text{The cooling and heating performances are the values when combined with our specified indoor units.}$ 

L. The cooling and heating personned Cooling Operation Conditions Indoor Air Inlet Temperature: 27.0°C DB 19.0°C WB Outdoor Air Inlet Temperature: 35.0°C DB Piping Length: 15.0 metre Piping Lift: 0 metre

Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB
Outdoor Air Inlet Temperature: 7.0°C DB
6.0°C WB

Piping Length: 15.0 metre Piping Lift: 0 metre

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

3. Except for the specified combination in the table (20~72HP class 56.0~201.0kW), there is no other combination of the base unit.

 $4. \ The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20 mm.$ 



HP class	56	58

Model				RAS-56FSNP	RAS-58FSNP	
				RAS-12FSNP RAS-12FSNP RAS-14FSNP RAS-18FSNP	RAS-12FSNP RAS-14FSNP RAS-14FSNP RAS-18FSNP	
Power Supply				3~/N, [400V/50Hz] [380-415V/50Hz] [380V/60Hz] 3~[22	0V/60Hz]	
Nominal Cooling Cap	acity		kW	157.0	162.0	
Nominal Heating Cap	acity		kW	176.0	181.0	
	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)		
Cabinet	Outer Dimensions	H×W×D	mm	1,675×5,290×765	1,675×5,290×765	
	Sound Power I	Level	dB(A)	90	91	
Sound Level	Sound Pressur	re Level	dB(A)	68.5	68.5	
Net Weight	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	260+260+270+360	260+270+270+360	
Marinha.		220V/60Hz	kg	255+255+265+355	255+265+265+355	
Weight ——Gro	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	278+278+288+380	278+288+288+380	
		220V/60Hz	kg	273+273+283+375	273+283+283+375	
	Туре			R410A		
Refrigerant	Flow Control			Micro-Computer Control Expansion Valve		
	Charge (before	e Shipment)	kg	38.5	38.5	
	Туре			Hermetic (Scroll)		
Compressor	Model			DC80PHD+DC80PHD+DC80PHD+DC80PHD	DC80PHD+DC80PHD+DC80PHD+DC80PHD	
Compressor	Quantity			5	5	
	Motor Output	(Pole)	kW	5.1(6)×2+6.4(6)+4.4(6)×2	5.1(6)+6.4(6)×2+4.4(6)×2	
Refrigeration Oil	Туре			FVC68D		
Kerrigeration Oit	Charge		L/Unit	26.8	27.7	
Heat Exchanger				Multi-Pass Cross-Finned Tube		
	Туре			Propeller Fan		
Condenser Fan	Quantity			8	8	
Condenser I all	Air Flow Rate		m³/min.	219×2+243+362	219+243×2+362	
	Motor Output	(Pole)	kW	(0.26(8)×2)×2+0.34(8)×2+0.62(8)×2	0.26(8)×2+(0.34(8)×2)×2+0.62(8)×2	
Main Refrigerant Piping	Liquid Line		mm	ф19.05	ф19.05	
Heat Pump System (2 Pipes)	Gas Line		mm	ф44.45	ф44.45	
Votes:						

Notes:

1. The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature:
27.0°C DB
19.0°C WB
Outdoor Air Inlet Temperature:
20.0°C DB
7.0°C DB
6.0°C WB
19.0°C NB
19.0°C Outdoor Air Inlet Temperature: 27.0°C DB 19.0°C WB
Outdoor Air Inlet Temperature: 35.0°C DB
Piping Length: 15.0 metre (RAS-56FSNP),
17.5 metre (RAS-58FSNP) 6.0°C Wi Piping Length: 15.0 metre (RAS-56FSNP), 17.5 metre (RAS-58FSNP) Piping Lift: 0 metre Piping Lift: 0 metre

 The sound pressure is based on the following conditions.
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field. 3. Except for the specified combination in the table (20~72HP class 56.0~201.0kW), there is no other combination of the base unit.

4. The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20 mm.

24

# High efficiency model: FSNP series

				3 3 3			
HP class				60	62		
Model				RAS-60FSNP	RAS-62FSNP		
Combination of Base	Unit			RAS-14FSNP RAS-14FSNP RAS-16FSNP RAS-16FSNP	RAS-14FSNP RAS-16FSNP RAS-16FSNP RAS-16FSNP		
Power Supply				3~/N, [400V/50Hz] [380-415V/50Hz] [380V/60Hz] 3~[22	0V/60Hz]		
Nominal Cooling Cap	acity		kW	167.0	174.0		
Nominal Heating Cap	acity		kW	188.0	196.0		
	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)			
Cabinet	Outer Dimensions	H×W×D	mm	1,675×5,680×765	1,675×6,070×765		
Sound Level	Sound Power I	Level	dB(A)	91	91		
Journa Levet	Sound Pressur	re Level	dB(A)	70	70.5		
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	270+270+345+345	270+345+345+345		
Weight		220V/60Hz	kg	265+265+340+340	265+340+340+340		
weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	288+288+365+365	288+365+365+365		
		220V/60Hz	kg	283+283+360+360	283+360+360+360		
	Туре			R410A			
Refrigerant	Flow Control			Micro-Computer Control Expansion Valve			
	Charge (before	e Shipment)	kg	38.6	39.3		
	Туре			Hermetic (Scroll)			
Compressor	Model			DC80PHD+DC80PHD+AA50PHD+AA50PHD +AA50PHD+AA50PHD	DC80PHD+AA50PHD+AA50PHD+AA50PHD+AA50PHD +AA50PHD+AA50PHD		
	Quantity			6	7		
	Motor Output	(Pole)	kW	6.4(6)×2+(3.7(6)×2)×2	6.4(6)+(3.7(6)×2)×3		
Refrigeration Oil	Туре			FVC68D			
emgeration on	Charge		L/Unit	29.6	30.6		
Heat Exchanger				Multi-Pass Cross-Finned Tube			
	Туре			Propeller Fan			
Condenser Fan	Quantity			8	8		
condenser ran	Air Flow Rate		m³/min.	243×2+326×2	243+326×3		
	Motor Output	(Pole)	kW	(0.34(8)×2)×2+(0.47(8)×2)×2	0.34(8)×2+(0.47(8)×2)×3		
Main Refrigerant Piping	Liquid Line		mm	ф19.05	ф19.05		
Heat Pump System (2 Pipes)	Gas Line		mm	ф44.45	ф44.45		

Notes:

1. The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature:

19.0°C WB
Outdoor Air Inlet Temperature:

27.0°C DB
19.0°C WB
Outdoor Air Inlet Temperature:

27.0°C DB
Piping Length: 17.5 metre
Piping Lift: 0 metre

27.0°C DB
27.

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

3. Except for the specified combination in the table (20~72HP class 56.0~201.0kW), there is no other combination of the base unit.

4. The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20 mm.



HP class				64	66	68	70	72
Model				RAS-64FSNP	RAS-66FSNP	RAS-68FSNP	RAS-70FSNP	RAS-72FSNP
Combination of Base	Unit			RAS-16FSNP RAS-16FSNP RAS-16FSNP RAS-16FSNP	RAS-16FSNP RAS-16FSNP RAS-16FSNP RAS-18FSNP	RAS-16FSNP RAS-16FSNP RAS-18FSNP RAS-18FSNP	RAS-16FSNP RAS-18FSNP RAS-18FSNP RAS-18FSNP	RAS-18FSNP RAS-18FSNP RAS-18FSNP RAS-18FSNP
Power Supply				3~/N, [400V/50Hz] [38	30-415V/50Hz] [380V/60	Hz] 3~[220V/60Hz]		
Nominal Cooling Capacity kW				179.0	184.0	190.0	196.0	201.0
Nominal Heating Capacity kW				202.0	207.0	213.0	220.0	225.0
	Color	Munsell Code		Natural Gray (1.0Y 8.5	(0.5)			
Cabinet	Outer Dimensions	H×W×D	mm	1,675×6,460×765	1,675×6,460×765	1,675×6,460×765	1,675×6,460×765	1,675×6,460×765
C	Sound Power I	Level	dB(A)	91	91	92	91	92
Sound Level	Sound Pressu	re Level	dB(A)	71	71	71	71	71
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	345+345+345+345	345+345+345+360	345+345+360+360	345+360+360+360	360+360+360+360
Mariaba		220V/60Hz	kg	340+340+340+340	340+340+340+355	340+340+355+355	340+355+355+355	355+355+355+355
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	365+365+365+365	365+365+365+380	365+365+380+380	365+380+380+380	380+380+380+380
		220V/60Hz	kg	360+360+360+360	360+360+360+375	360+360+375+375	360+375+375+375	375+375+375+37
	Туре			R410A				
Refrigerant	Flow Control			Micro-Computer Con	trol Expansion Valve			
	Charge (before	e Shipment)	kg	40.0	40.6	41.2	41.8	42.4
	Туре			Hermetic (Scroll)				
Compressor	Model			AA50PHD+AA50PHD +AA50PHD+AA50PHD +AA50PHD+AA50PHD +AA50PHD+AA50PHD	AA50PHD+AA50PHD +AA50PHD+AA50PHD +AA50PHD+AA50PHD +DC80PHD+DC80PHD	AA50PHD+AA50PHD +AA50PHD+AA50PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	AA50PHD+AA50PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	DC80PHD+DC80PH +DC80PHD+DC80F +DC80PHD+DC80F +DC80PHD+DC80F
	Quantity			8	8	8	8	8
	Motor Output	(Pole)	kW	(3.7(6)×2)×4	(3.7(6)×2)×3 +4.4(6)×2	(3.7(6)×2)×2 +(4.4(6)×2)×2	3.7(6)×2 +(4.4(6)×2)×3	(4.4(6)×2)×4
Defrice mation Oil	Туре			FVC68D				
Refrigeration Oil	Charge		L/Unit	31.6	31.6	31.6	31.6	31.6
Heat Exchanger				Multi-Pass Cross-Finn	ed Tube			
	Туре			Propeller Fan				
	Quantity			8	8	8	8	8
Condenser Fan	Air Flow Rate		m³/min.	326×4	326×3+362	326×2+362×2	326+362×3	362×4
	Motor Output	(Pole)	kW	(0.47(8)×2)×4	(0.47(8)×2)×3 +0.62(8)×2	(0.47(8)×2)×2 +(0.62(8)×2)×2	0.47(8)×2 +(0.62(8)×2)×3	(0.62(8)×2)×4
Main Refrigerant Piping	Liquid Line		mm	ф19.05	ф19.05	ф22.2	ф22.2	ф22.2
Heat Pump System (2 Pipes)	Gas Line		mm	ф44.45	ф44.45	ф44.45	ф44.45	ф44.45

The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB
19.0°C WB
Outdoor Air Inlet Temperature: 35.0°C DB

Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB
0.0°C WB Piping Length: 17.5 metre Piping Lift: 0 metre

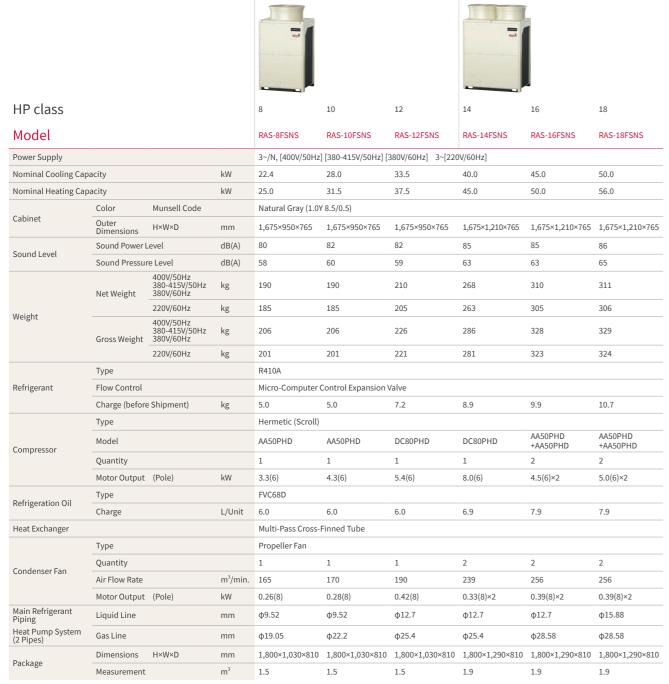
Piping Length: 17.5 metre Piping Lift: 0 metre

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

The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.  $3. \, \text{Except for the specified combination in the table (20~72 HP \, class \, 56.0~201.0 kW), there is no other combination of the base unit.}$ 

4. The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

# Standard model: FSNS series



Notes:

1. The cooling and heating performances are the values whe

Piping Length: 7.5 metre
Piping Lift: 0 metre

. The cooling and measure personal Cooling Operation Conditions Indoor Air Inlet Temperature: 27.0°C DB 19.0°C WB Heating Operation Conditions Indoor Air Inlet Temperature: 20.0°C DB Outdoor Air Inlet Temperature: 7.0°C DB Outdoor Air Inlet Temperature: 35.0°C DB Piping Length: 7.5 metre Piping Lift: 0 metre

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

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



HP class				20	22	24		
Model				RAS-20FSNS	RAS-22FSNS	RAS-24FSNS		
Power Supply				3~/N, [400V/50Hz] [380-415V/50Hz	r] [380V/60Hz] 3~[220V/60Hz]			
Nominal Cooling Cap	acity		kW	56.0	61.5	67.0		
Nominal Heating Cap	acity		kW	63.0 69.0 77.5				
	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)				
Cabinet	Outer Dimensions	H×W×D	mm	1,675×1,600×765	1,675×1,600×765	1,675×1,600×765		
C	Sound Power I	Level	dB(A)	86	84	86		
Sound Level	Sound Pressur	re Level	dB(A)	65	64	66		
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	350	364	365		
Mariala.		220V/60Hz	kg	345	359	360		
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	370	384	385		
		220V/60Hz	kg	365	379	380		
	Туре			R410A				
Refrigerant	Flow Control			Micro-Computer Control Expansion	on Valve			
	Charge (before	e Shipment)	kg	11.3	11.3	11.6		
	Туре			Hermetic (Scroll)				
Compressor	Model			AA50PHD+AA50PHD	DC80PHD+DC80PHD	DC80PHD+DC80PHD		
Compressor	Quantity			2	2	2		
	Motor Output	(Pole)	kW	5.5(6)×2	6.7(6)×2	7.1(6)×2		
Refrigeration Oil	Туре			FVC68D				
Reingeration Oit	Charge		L/Unit	8.4	8.4	8.4		
Heat Exchanger				Multi-Pass Cross-Finned Tube				
	Туре			Propeller Fan				
Condenser Fan	Quantity			2	2	2		
Condenser ran	Air Flow Rate		m³/min.	329	329	348		
	Motor Output	(Pole)	kW	0.48(8)×2	0.48(8)×2	0.56(8)×2		
Main Refrigerant Piping	Liquid Line		mm	ф15.88	ф15.88	ф15.88		
Heat Pump System (2 Pipes)	Gas Line		mm	ф28.58	ф28.58	ф28.58		
Package	Dimensions	H×W×D	mm	1,800×1,680×810	1,800×1,680×810	1,800×1,680×810		
rachage	Measurement		m³	2.4	2.4	2.4		

The cooling and heating performances are the values when combined with our specified indoor units.
 Cooling Operation Conditions
 Heating Operation Conditions

Indoor Air Inlet Temperature: 27.0°C DB 19.0°C WB

Outdoor Air Inlet Temperature: 35.0°C DB Piping Length: 10.0 metre

Indoor Air Inlet Temperature: 20.0°C DB Outdoor Air Inlet Temperature: 7.0°C DB 6.0°C WB

2. The sound pressure is based on the following conditions

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

3. The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

<sup>3.</sup> The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

# **SPECIFICATIONS**

# Standard model: FSNS series

HP class				26	28	30	32	34	36
Model				RAS-26FSNS	RAS-28FSNS	RAS-30FSNS	RAS-32FSNS	RAS-34FSNS	RAS-36FSNS
Model									
Combination of Base	Unit			RAS-12FSNS RAS-14FSNS	RAS-16FSNS RAS-12FSNS	RAS-12FSNS RAS-18FSNS	RAS-14FSNS RAS-18FSNS	RAS-16FSNS RAS-18FSNS	RAS-18FSNS RAS-18FSNS
Power Supply				3~/N, [400V/50Hz]	[380-415V/50Hz] [3	380V/60Hz] 3~[220	V/60Hz]		
Nominal Cooling Cap	acity		kW	73.0	77.5	85.0	90.0	95.0	100.0
Nominal Heating Cap	acity		kW	82.5	90.0	95.0	100.0	106.0	112.0
Cabinat	Color	Munsell Code		Natural Gray (1.0Y	8.5/0.5)				
Cabinet	Outer Dimensions	H×W×D	mm	1,675×2,180×765	1,675×2,180×765	1,675×2,180×765	1,675×2,440×765	1,675×2,440×765	1,675×2,440×765
Court di sural	Sound Power L	evel	dB(A)	87	87	87	89	89	89
Sound Level	Sound Pressur	re Level	dB(A)	64.5	64.5	66	67	67	68
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	210+268	210+310	210+311	268+311	310+311	311+311
Maiabt		220V/60Hz	kg	205+263	205+305	205+306	263+306	305+306	306+306
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	226+286	226+328	226+329	286+329	328+329	329+329
		220V/60Hz	kg	221+281	221+323	221+324	281+324	323+324	324+324
	Туре			R410A					
Refrigerant	Flow Control			Micro-Computer Control Expansion Valve					
	Charge (before	Shipment)	kg	16.1	17.1	17.9	19.6	20.6	21.4
	Туре			Hermetic (Scroll)					
Compressor	Model			DC80PHD+DC80PHD	DC80PHD+AA50PHD +AA50PHD	DC80PHD+AA50PHD +AA50PHD	DC80PHD+AA50PHD +AA50PHD	AA50PHD+AA50PHD +AA50PHD+AA50PHD	AA50PHD+AA50PHD +AA50PHD+AA50PHD
	Quantity			2	3	3	3	4	4
	Motor Output	(Pole)	kW	5.4(6)×1+8.0(6)×1	5.4(6)×1+4.5(6)×2	5.4(6)×1+5.0(6)×2	8.0(6)×1+5.0(6)×2	4.5(6)×2+5.0(6)×2	5.0(6)×2+5.0(6)×2
Refrigeration Oil	Туре			FVC68D					
nemgeration on	Charge		L/Unit	12.9	13.9	13.9	14.8	15.8	15.8
Heat Exchanger				Multi-Pass Cross-F	inned Tube				
	Туре			Propeller Fan					
Condonser	Quantity			3	3	3	4	4	4
Condenser Fan	Air Flow Rate		m³/min.	190+239	190+256	190+256	239+256	256×2	256×2
	Motor Output	(Pole)	kW	0.42(8) +0.33(8)×2	0.42(8) +0.39(8)×2	0.42(8) +0.39(8)×2	0.33(8)×2 +0.39(8)×2	0.39(8)×2 +0.39(8)×2	0.39(8)×2 +0.39(8)×2
Main Refrigerant Piping	Liquid Line		mm	ф19.05	ф19.05	ф19.05	ф19.05	ф19.05	ф19.05
Heat Pump System (2 Pipes)	Gas Line		mm	ф31.75	ф31.75	ф31.75	ф31.75	ф31.75	ф38.1

Notes:

1. The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB Indoor Air Inlet Temperature: 20.0°C
19.0°C WB Outdoor Air Inlet Temperature: 35.0°C DB
Piping Length: 10.0 metre (RAS-26-30FSNS), Piping Length: 10.0 metre (RAS-32-36FSNS)
Piping Lift: 0 metre

Notes:

12.5 metre (RAS-32-36FSNS)
Piping Lift: 0 metre

12.5 metre (RAS-32-36FSNS)
Piping Lift: 0 metre combined with our specified indoor units.

Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB
Outdoor Air Inlet Temperature: 7.0°C DB
6.0°C WB
Piping Length: 10.0 metre (RAS-32~36FSNS)
12.5 metre (RAS-32~36FSNS)
Piping Lift: 0 metre

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

 $3. \, \text{Except for the specified combination in the table (26~96HP \, class \, 73.0~268.0 kW), there is no other combination of the base unit.} \\$ 

				3	=		2	3	
HP class				38	40	42	44	46	48
Model				RAS-38FSNS	RAS-40FSNS	RAS-42FSNS	RAS-44FSNS	RAS-46FSNS	RAS-48FSNS
Combination of Base	Unit			RAS-14FSNS RAS-24FSNS	RAS-18FSNS RAS-22FSNS	RAS-18FSNS RAS-24FSNS	RAS-22FSNS RAS-22FSNS	RAS-22FSNS RAS-24FSNS	RAS-24FSNS RAS-24FSNS
Power Supply				3~/N, [400V/50Hz]	[380-415V/50Hz] [3	80V/60Hz] 3~[220	V/60Hz]		
Nominal Cooling Cap	acity		kW	106.0	112.0	118.0	122.0	128.0	136.0
Nominal Heating Cap	acity		kW	118.0	125.0	132.0	140.0	145.0	150.0
	Color	Munsell Code		Natural Gray (1.0Y	8.5/0.5)				
Cabinet	Outer Dimensions	H×W×D	mm	1,675×2,830×765	1,675×2,830×765	1,675×2,830×765	1,675×3,220×765	1,675×3,220×765	1,675×3,220×765
Coundlessel	Sound Power L	.evel	dB(A)	89	88	89	87	88	89
Sound Level	Sound Pressur	re Level	dB(A)	68	67.5	68.5	67	68	69
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	268+365	311+364	311+365	364+364	364+365	365+365
Maiaht		220V/60Hz	kg	263+360	306+359	306+360	359+359	359+360	360+360
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	286+385	329+384	329+385	384+384	384+385	385+385
		220V/60Hz	kg	281+380	324+379	324+380	379+379	379+380	380+380
	Туре			R410A					
Refrigerant	Flow Control			Micro-Computer C	ontrol Expansion V	'alve			
	Charge (before	Shipment)	kg	20.5	22.0	22.3	22.6	22.9	23.2
	Туре			Hermetic (Scroll)					
Compressor	Model			DC80PHD+DC80PHD +DC80PHD	AA50PHD+AA50PHD +DC80PHD+DC80PHD	AA50PHD+AA50PHD +DC80PHD+DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD
	Quantity			3	4	4	4	4	4
	Motor Output	(Pole)	kW	8.0(6)×1+7.1(6)×2	5.0(6)×2+6.7(6)×2	5.0(6)×2+7.1(6)×2	6.7(6)×2+6.7(6)×2	6.7(6)×2+7.1(6)×2	7.1(6)×2+7.1(6)×2
Refrigeration Oil	Туре			FVC68D					
The mage ration on	Charge		L/Unit	15.3	16.3	16.3	16.8	16.8	16.8
Heat Exchanger				Multi-Pass Cross-F	inned Tube				
	Туре			Propeller Fan					
	Quantity			4	4	4	4	4	4
Condenser Fan	Air Flow Rate		m³/min.	239+348	256+329	256+348	329×2	329+348	348×2
	Motor Output	(Pole)	kW	0.33(8)×2 +0.56(8)×2	0.39(8)×2 +0.48(8)×2	0.39(8)×2 +0.56(8)×2	0.48(8)×2 +0.48(8)×2	0.48(8)×2 +0.56(8)×2	0.56(8)×2 +0.56(8)×2
Main Refrigerant Piping	Liquid Line		mm	ф19.05	ф19.05	ф19.05	ф19.05	ф19.05	ф19.05
Heat Pump System (2 Pipes)	Gas Line		mm	ф38.1	ф38.1	ф38.1	ф38.1	ф38.1	ф38.1

Notes:  $1. \, \text{The cooling and heating performances are the values when combined with our specified indoor units}.$ 

1. The cooling and heating performances are the Cooling Operation Conditions Indoor Air Inlet Temperature: 27.0°C DB 19.0°C WB Outdoor Air Inlet Temperature: 35.0°C DB Piping Length: 12.5 metre (RAS-38-44FSNS), Piping Lift: 0 metre

combined with our specified Indoor units.

Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB
Outdoor Air Inlet Temperature: 7.0°C DB
6.0°C WB
Piping Length: 12.5 metre (RAS-38-44FSNS)
15.0 metre (RAS-46~48FSNS)

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

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

 $3. \, \text{Except for the specified combination in the table (26-96 HP \, class \, 73.0~268.0 kW), there is no other combination of the base unit.} \\$ 

<sup>4.</sup> The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

<sup>4.</sup> The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

				-	3 3		-	2	
HP class				50	52	54	56	58	60
Model				RAS-50FSNS	RAS-52FSNS	RAS-54FSNS	RAS-56FSNS	RAS-58FSNS	RAS-60FSNS
Combination of Base	Unit			RAS-14FSNS RAS-18FSNS RAS-18FSNS	RAS-16FSNS RAS-18FSNS RAS-18FSNS	RAS-18FSNS RAS-18FSNS RAS-18FSNS	RAS-14FSNS RAS-18FSNS RAS-24FSNS	RAS-18FSNS RAS-18FSNS RAS-22FSNS	RAS-18FSNS RAS-18FSNS RAS-24FSNS
Power Supply				3~/N, [400V/50Hz]	[380-415V/50Hz] [3	380V/60Hz] 3~[220	V/60Hz]		
Nominal Cooling Cap	acity		kW	140.0	145.0	150.0	157.0	162.0	167.0
Nominal Heating Cap	acity		kW	155.0	160.0	165.0	176.0	181.0	188.0
	Color	Munsell Code		Natural Gray (1.0Y	8.5/0.5)				
Cabinet	Outer Dimensions	H×W×D	mm	1,675×3,670×765	1,675×3,670×765	1,675×3,670×765	1,675×4,060×765	1,675×4,060×765	1,675×4,060×765
Sound Level	Sound Power L	_evel	dB(A)	90	90	91	90	90	91
Sound Level	Sound Pressur	re Level	dB(A)	69	69	70	69.5	69.5	70
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	268+311+311	310+311+311	311+311+311	268+311+365	311+311+364	311+311+365
		220V/60Hz	kg	263+306+306	305+306+306	306+306+306	263+306+360	306+306+359	306+306+360
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	286+329+329	328+329+329	329+329+329	286+329+385	329+329+384	329+329+385
		220V/60Hz	kg	281+324+324	323+324+324	324+324+324	281+324+380	324+324+379	324+324+380
	Туре			R410A					
Refrigerant	Flow Control			Micro-Computer Control Expansion Valve					
	Charge (before	e Shipment)	kg	30.3	31.3	32.1	31.2	32.7	33.0
	Туре			Hermetic (Scroll)					
Compressor	Model			DC80PHD+AA50PHD +AA50PHD+AA50PHD +AA50PHD	AA50PHD+AA50PHD +AA50PHD+AA50PHD +AA50PHD+AA50PHD	AA50PHD+AA50PHD +AA50PHD+AA50PHD +AA50PHD+AA50PHD	DC80PHD+AA50PHD +AA50PHD+DC80PHD +DC80PHD	AA50PHD+AA50PHD +AA50PHD+AA50PHD +DC80PHD+DC80PHD	AA50PHD+AA50PHD +AA50PHD+AA50PHD +DC80PHD+DC80PHD
P	Quantity			5	6	6	5	6	6
	Motor Output	(Pole)	kW	8.0(6)×1+5.0(6)×2 +5.0(6)×2	4.5(6)×2+5.0(6)×2 +5.0(6)×2	5.0(6)×2+5.0(6)×2 +5.0(6)×2	8.0(6)+5.0(6)×2 +7.1(6)×2	(5.0(6)×2)×2 +6.7(6)×2	(5.0(6)×2)×2 +7.1(6)×2
Pofrigoration Oil	Туре			FVC68D					
Refrigeration Oil	Charge		L/Unit	22.7	23.7	23.7	23.2	24.2	24.2
Heat Exchanger				Multi-Pass Cross-F	Finned Tube				
	Туре			Propeller Fan					
	Quantity			6	6	6	6	6	6
Condenser Fan	Air Flow Rate		m³/min.	239+256×2	256×3	256×3	239+256+348	256+256+329	256+256+348
	Motor Output	(Pole)	kW	0.33(8)×2+0.39(8)×2 +0.39(8)×2	0.39(8)×2+0.39(8)×2 +0.39(8)×2	0.39(8)×2+0.39(8)×2 +0.39(8)×2	0.33(8)×2+0.39(8)×2 +0.56(8)×2	(0.39(8)×2)×2 +0.48(8)×2	(0.39(8)×2)×2 +0.56(8)×2
Main Refrigerant Piping	Liquid Line		mm	ф19.05	ф19.05	ф19.05	ф19.05	ф19.05	ф19.05
Heat Pump System (2 Pipes)	Gas Line		mm	ф38.1	ф38.1	ф38.1	ф44.45	ф44.45	ф44.45

Ν	otes:	
1	TI	

Notes:

1. The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature:

27.0°C DB

19.0°C WB

Outdoor Air Inlet Temperature:

7.0°C DB

Outdoor Air Inlet Temperature:

7.0°C DB

6.0°C WB

Piping Length: 15.0 metre (RAS-50-56FSNS),

17.5 metre (RAS-58-60FSNS)

Piping Length: 15.0 metre (RAS-58-60FSNS)

17.5 metre (RAS-58-60FSNS)

Piping Lift: 0 metre

Piping Lift: 0 metre

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

3. Except for the specified combination in the table (26~96HP class 73.0~268.0kW), there is no other combination of the base unit.

4. The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

				=	3	5	3	5	3
HP class				62	64	66	68	70	72
Model				RAS-62FSNS	RAS-64FSNS	RAS-66FSNS	RAS-68FSNS	RAS-70FSNS	RAS-72FSNS
Combination of Base	e Unit			RAS-14FSNS RAS-24FSNS RAS-24FSNS	RAS-18FSNS RAS-22FSNS RAS-24FSNS	RAS-18FSNS RAS-24FSNS RAS-24FSNS	RAS-22FSNS RAS-22FSNS RAS-24FSNS	RAS-22FSNS RAS-24FSNS RAS-24FSNS	RAS-24FSNS RAS-24FSNS RAS-24FSNS
Power Supply				3~/N, [400V/50Hz]	[380-415V/50Hz] [3	380V/60Hz] 3~[220	0V/60Hz]		
Nominal Cooling Cap	pacity		kW	174.0	179.0	184.0	190.0	196.0	201.0
Nominal Heating Cap	pacity		kW	196.0	202.0	207.0	213.0	220.0	225.0
	Color	Munsell Code		Natural Gray (1.0Y	8.5/0.5)				
Cabinet	Outer Dimensions	H×W×D	mm	1,675×4,450×765	1,675×4,450×765	1,675×4,450×765	1,675×4,840×765	1,675×4,840×765	1,675×4,840×765
Coundleval	Sound Power L	Level	dB(A)	90	90	91	90	90	91
Sound Level	Sound Pressur	re Level	dB(A)	70	70	70.5	69.5	70	71
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	268+365+365	311+364+365	311+365+365	364+364+365	364+365+365	365+365+365
		220V/60Hz	kg	263+360+360	306+359+360	306+360+360	359+359+360	359+360+360	360+360+360
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	286+385+385	329+384+385	329+385+385	384+384+385	384+385+385	385+385+385
		220V/60Hz	kg	281+380+380	324+379+380	324+380+380	379+379+380	379+380+380	380+380+380
	Туре			R410A					
Refrigerant	Flow Control			Micro-Computer Control Expansion Valve					
	Charge (before	e Shipment)	kg	32.1	33.6	33.9	34.2	34.5	34.8
	Туре			Hermetic (Scroll)					
Compressor	Model			DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD	AA50PHD+AA50PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	AA50PHD+AA50PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD
	Quantity			5	6	6	6	6	6
	Motor Output	(Pole)	kW	8.0(6) +(7.1(6)×2)×2	5.0(6)×2+6.7(6)×2 +7.1(6)×2	5.0(6)×2 +(7.1(6)×2)×2	(6.7(6)×2)×2 +7.1(6)×2	6.7(6)×2 +(7.1(6)×2)×2	(7.1(6)×2)×3
Refrigeration Oil	Туре			FVC68D					
nemgeradon Oil	Charge		L/Unit	23.7	24.7	24.7	25.2	25.2	25.2
Heat Exchanger				Multi-Pass Cross-F	inned Tube				
	Туре			Propeller Fan					
	Quantity			6	6	6	6	6	6
Condenser Fan	Air Flow Rate		m³/min.	239+348+348	256+329+348	256+348+348	329+329+348	329+348×2	348×3
	Motor Output	(Pole)	kW	0.33(8)×2 +(0.56(8)×2)×2	0.39(8)×2+0.48(8)×2 +0.56(8)×2	0.39(8)×2 +(0.56(8)×2)×2	(0.48(8)×2)×2 +0.56(8)×2	0.48(8)×2 +(0.56(8)×2)×2	(0.56(8)×2)×3
Main Refrigerant Piping	Liquid Line		mm	ф19.05	ф19.05	ф19.05	ф22.2	ф22.2	ф22.2
Heat Pump System (2 Pipes)	Gas Line		mm	ф44.45	ф44.45	ф44.45	ф44.45	ф44.45	ф44.45

Notes:

1. The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB Indoor Air Inlet Temperature: 20.0°C DB 19.0°C WB Outdoor Air Inlet Temperature: 35.0°C DB

Piping Length: 17.5 metre Piping Lift: 0 metre

Piping Length: 17.5 metre Piping Lift: 0 metre

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

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

 $3. \, \text{Except for the specified combination in the table (26~96 HP \, class \, 73.0~268.0 kW), there is no other combination of the base unit.} \\$ 

4. The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

30

# **SPECIFICATIONS**

# Standard model: FSNS series

up.l				3	5 5	5	3	<b>3 3</b>	٥
HP class				74	76	78	80	82	84
Model				RAS-74FSNS	RAS-76FSNS	RAS-78FSNS	RAS-80FSNS	RAS-82FSNS	RAS-84FSNS
Combination of Base	Unit			RAS-14FSNS RAS-18FSNS RAS-18FSNS RAS-24FSNS	RAS-18FSNS RAS-18FSNS RAS-18FSNS RAS-22FSNS	RAS-18FSNS RAS-18FSNS RAS-18FSNS RAS-24FSNS	RAS-14FSNS RAS-18FSNS RAS-24FSNS RAS-24FSNS	RAS-16FSNS RAS-18FSNS RAS-24FSNS RAS-24FSNS	RAS-18FSNS RAS-18FSNS RAS-24FSNS RAS-24FSNS
Power Supply				3~/N, [400V/50Hz]	[380-415V/50Hz]	380V/60Hz] 3~[220	V/60Hz]		
Nominal Cooling Cap	acity		kW	207.0	212.0	217.0	224.0	230.0	234.0
Nominal Heating Cap	acity		kW	232.0	237.0	244.0	254.0	261.0	267.0
Cabinet	Color	Munsell Code		Natural Gray (1.0)	( 8.5/0.5)				
Cabinet	Outer Dimensions	H×W×D	mm	1,675×5,290×765	1,675×5,290×765	1,675×5,290×765	1,675×5,680×765	1,675×5,680×765	1,675×5,680×765
Sound Level	Sound Power L	.evel	dB(A)	92	92	92	92	92	92
Sound Level	Sound Pressur	e Level	dB(A)	71	71	71.5	71	71	71.5
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	268+311+311+365	311+311+311+364	311+311+311+365	268+311+365+365	310+311+365+365	311+311+365+365
Weight		220V/60Hz	kg	263+306+306+360	306+306+306+359	306+306+306+360	263+306+360+360	305+306+360+360	306+306+360+360
weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	286+329+329+385	329+329+329+384	329+329+329+385	286+329+385+385	328+329+385+385	329+329+385+385
		220V/60Hz	kg	281+324+324+380	324+324+324+379	324+324+324+380	281+324+380+380	323+324+380+380	324+324+380+380
	Туре			R410A					
Refrigerant	Flow Control			Micro-Computer Control Expansion Valve					
	Charge (before	Shipment)	kg	41.9	43.4	43.7	42.8	43.8	44.6
	Туре			Hermetic (Scroll)					
Compressor	Model			DC80PHD+AA50PHD +AA50PHD+AA50PHD +AA50PHD+DC80PHD +DC80PHD		AA50PHD+AA50PHD +AA50PHD+AA50PHD +AA50PHD+AA50PHD +DC80PHD+DC80PHD	DC80PHD+AA50PHD +AA50PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD	AA50PHD+AA50PHD +AA50PHD+AA50PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	
	Quantity			7	8	8	7	8	8
	Motor Output	(Pole)	kW	8.0(6)+(5.0(6)×2)×2 +7.1(6)×2	(5.0(6)×2)×3 +6.7(6)×2	(5.0(6)×2)×3 +7.1(6)×2	8.0(6)+5.0(6)×2 +(7.1(6)×2)×2	4.5(6)×2+5.0(6)×2 +(7.1(6)×2)×2	(5.0(6)×2)×2 +(7.1(6)×2)×2
Pofrigoration Oil	Туре			FVC68D					
Refrigeration Oil	Charge		L/Unit	31.1	32.1	32.1	31.6	32.6	32.6
Heat Exchanger				Multi-Pass Cross-I	Finned Tube				
	Туре			Propeller Fan					
	Quantity			8	8	8	8	8	8
Condenser Fan	Air Flow Rate		m³/min.	239+256×2+348	256×3+329	256×3+348	239+256+348×2	256+256+348×2	256 ×2+348×2
	Motor Output	(Pole)	kW	0.33(8)×2+(0.39(8)×2)×2 +0.56(8)×2	(0.39(8)×2)×3 +0.48(8)×2	(0.39(8)×2)×3 +0.56(8)×2	0.33(8)×2+0.39(8)×2 +(0.56(8)×2)×2	0.39(8)×2+0.39(8)×2 +(0.56(8)×2)×2	(0.39(8)×2)×2 +(0.56(8)×2)×2
Main Refrigerant Piping	Liquid Line		mm	ф22.2	ф22.2	ф22.2	ф22.2	ф22.2	ф22.2
Heat Pump System (2 Pipes)	Gas Line		mm	ф50.8	ф50.8	ф50.8	ф50.8	ф50.8	ф50.8

Notes:

1. The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature:

27.0°C DB
Indoor Air Inlet Temperature:

20.0°C
Outdoor Air Inlet Temperature:

7.0°C D
Outdoor Air Inlet Temperature:

35.0°C DB Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB
0.0°C WB

Piping Length: 20.0 metre
Piping Lift: 0 metre

Piping Length: 20.0 metre Piping Lift: 0 metre

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

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

 $3. \, \text{Except for the specified combination in the table (26~96HP \, class \, 73.0~268.0kW), there is no other combination of the base unit.} \\$ 

					3 3	=	5	3	3 3
HP class				86	88	90	92	94	96
Model				RAS-86FSNS	RAS-88FSNS	RAS-90FSNS	RAS-92FSNS	RAS-94FSNS	RAS-96FSNS
Combination of Base	Unit			RAS-14FSNS RAS-24FSNS RAS-24FSNS RAS-24FSNS	RAS-16FSNS RAS-24FSNS RAS-24FSNS RAS-24FSNS	RAS-18FSNS RAS-24FSNS RAS-24FSNS RAS-24FSNS	RAS-22FSNS RAS-22FSNS RAS-24FSNS RAS-24FSNS	RAS-22FSNS RAS-24FSNS RAS-24FSNS RAS-24FSNS	RAS-24FSNS RAS-24FSNS RAS-24FSNS RAS-24FSNS
Power Supply				3~/N, [400V/50Hz]	[380-415V/50Hz] [3	80V/60Hz] 3~[220	V/60Hz]		
Nominal Cooling Capa	acity		kW	241.0	246.0	251.0	258.0	263.0	268.0
Nominal Heating Cap	acity		kW	275.0	282.0	287.0	293.0	299.0	305.0
	Color	Munsell Code		Natural Gray (1.0Y	8.5/0.5)				
Cabinet	Outer Dimensions	H×W×D	mm	1,675×6,070×765	1,675×6,070×765	1,675×6,070×765	1,675×6,460×765	1,675×6,460×765	1,675×6,460×76
	Sound Power L	evel	dB(A)	92	92	92	92	92	92
Sound Level	Sound Pressur	e Level	dB(A)	71.5	71.5	72	72	71.5	72
	Net Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	268+365+365+365	310+365+365+365	311+365+365+365	364+364+365+365	364+365+365+365	365+365+365+3
Maight		220V/60Hz	kg	263+360+360+360	305+360+360+360	306+360+360+360	359+359+360+360	359+360+360+360	360+360+360+3
Weight	Gross Weight	400V/50Hz 380-415V/50Hz 380V/60Hz	kg	286+385+385+385	328+385+385+385	329+385+385+385	384+384+385+385	384+385+385+385	385+385+385+3
		220V/60Hz	kg	281+380+380+380	323+380+380+380	324+380+380+380	379+379+380+380	379+380+380+380	380+380+380+38
	Туре			R410A					
Refrigerant	Flow Control			Micro-Computer Control Expansion Valve					
	Charge (before	Shipment)	kg	43.7	44.7	45.5	45.8	46.1	46.4
	Туре			Hermetic (Scroll)					
Compressor	Model				AA50PHD+AA50PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	AA50PHD+AA50PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD +DC80PHD+DC80PHD	DC80PHD+DC80PH +DC80PHD+DC80PH +DC80PHD+DC80PH +DC80PHD+DC80PH
	Quantity			7	8	8	8	8	8
	Motor Output	(Pole)	kW	8.0(6) +(7.1(6)×2)×3	4.5(6)×2 +(7.1(6)×2)×3	5.0(6)×2 +(7.1(6)×2)×3	(6.7(6)×2)×2 +(7.1(6)×2)×2	6.7(6)×2 +(7.1(6)×2)×3	(7.1(6)×2)×4
Defeigementing Oil	Туре			FVC68D					
Refrigeration Oil	Charge		L/Unit	32.1	33.1	33.1	33.6	33.6	33.6
Heat Exchanger				Multi-Pass Cross-F	inned Tube				
	Туре			Propeller Fan					
	Quantity			8	8	8	8	8	8
Condenser Fan	Air Flow Rate		m³/min.	239+348×3	256+348×3	256+348×3	329×2+348×2	329+348×3	348×4
	Motor Output	(Pole)	kW	0.33(8)×2 +(0.56(8)×2)×3	0.39(8)×2 +(0.56(8)×2)×3	0.39(8)×2 +(0.56(8)×2)×3	(0.48(8)×2)×2 +(0.56(8)×2)×2	0.48(8)×2 +(0.56(8)×2)×3	(0.56(8)×2)×4
Main Refrigerant Piping	Liquid Line		mm	ф22.2	ф22.2	ф25.4	ф25.4	ф25.4	ф25.4
. •			mm	ф50.8	ф50.8	ф50.8	ф50.8	ф50.8	ф50.8

Notes:

1. The cooling and heating performances are the values when combined with our specified indoor units.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27.0°C DB Indoor Air Inlet Temperature: 20.0°C

Outdoor Air Inlet Temperature: 35.0°C DB

Outdoor Air Inlet Temperature: 6.0°C W Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB
0.0°C WB Piping Length: 22.5 metre Piping Lift: 0 metre

Piping Length: 22.5 metre
Piping Lift: 0 metre

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

 $3. \, \text{Except for the specified combination in the table (26~96 HP \, class \, 73.0~268.0 kW), there is no other combination of the base unit.}$ 

<sup>4.</sup> The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

<sup>4.</sup> The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

# PIPING CONNECTION KIT

Piping connection kit for the divergence between outdoor units

	Applicable OI	DU			
Model	HP class		Connectivity	Remarks	
	FSNP series	FSNS series	Number		
MC-NP20SA1	20-24	-	2	for Gas: 1	
MC-NP21SA1	26-36	26-48	2	for Liquid: 1	
MC-NP30SA1	38-54	50-54	3	for Gas: 2 for Liquid: 2	
MC-NP31SA	-	56-72	3	for Gas: 2 for Liquid: 2	
MC-NP40SA	56-72	74-96	4	for Gas: 3 for Liquid: 3	

The old model (MC-TTA1) is not available.

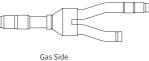
# Example: MC-NP21SA1





Branch Pipe for Liquid Line

## Example: MC-NP31SA





Liquid Side

# **MULTI-KIT**

Branching for indoor and outdoor connecting pipes

### Line branch

### First branching pipes

Model	ODU HP class
MW-NP282A3	5-10
MW-NP452A3	12-16
MW-NP692A3	18-24
MW-NP902A3	26-54
MW-NP2682A3	56-96

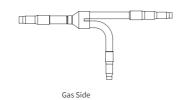
### Pipe diameter after the first branch and multi-kit

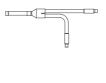
Model	Total IDU HP class	Diameter (mm)		
Model	TOTAL IDO HE CIASS	Gas Pipe	Liquid Pipe	
	< 6	Ф15.88	Ф9.52	
MW-NP282A3	6-8.99	Ф19.05	Ф9.52	
	9-11.99	Ф22.2	Ф9.52	
MW-NP452A3	12-15.99	Ф25.4	Ф12.7	
MW-MP432A3	16-17.99	Ф28.58	Ф12.7	
MW-NP692A3	18-25.99	Ф28.58	Ф15.88	
MW-NP902A3	26-35.99	Ф31.75	Ф19.05	
MW-NP902A3	36-55.99	Ф38.1	Ф19.05	
	56-67.99	Ф44.45	Ф19.05	
MW-NP2682A3	68-73.99	Ф44.45	Ф22.2	
WW-WF2002A3	74-89.99	Ф50.8	Ф22.2	
	≥90	Ф50.8	Ф25.4	

# Header branch

Model	Total IDU HP class	No. of Header Branches
MH-NP224A	5-8	4
MH-NP288A	5-10	8

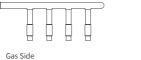
### Example: MW-NP282A3

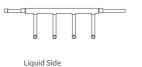




Liquid Side

Example: MH-NP224A	





# **DRAIN BOSS**

The drain boss is for the drain pipe connection in order to use the bottom base of the outdoor unit as a drain pan.

### Quantity

	Applicable ODU H	P class	
Model	FSNP series	FSNS series	Q'ty
	5-14	8-18	1
	16-24	20-36	2
	26-32	38, 40	3
	34, 36	42-48	4
	38-42	50-54	3
DBS-TP10A	44, 46	56-60	4
DB3-1P10A	48, 50	62-66	5
	52, 54	68-72	6
	56, 58	74-78	5
	60	80-84	6
	62	86-90	7
	64-72	92-96	8

### DBS-TP10A





Drain Boss×2



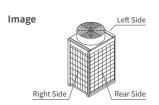
Drain Cap×2 To close the drain hole

# **HEAT EXCHANGER COVER**

This air inlet grille is to caution not to touch the outdoor unit heat exchanger reach in from air inlet. It is not designed to prever people reaching to the heat exchanger.

# Air inlet grille

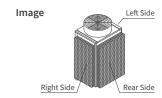
HP class (kW)		Rear	Right	Left	
FSNP series	FSNS series	Real	Rigitt		
5-6(14.0-16.0)	8-12(22.4-33.5)	PSN-TP20BA	PSN-TP20R	PSN-TP20L	
8-14(22.4-40.0)	14-18(40.0-50.0)	PSN-TP20BB	PSN-TP20R×2	PSN-TP20R×2	
16-18(45.0-50.0)	20-24(56.0-67.0)	PSN-TP20BC	PSN-TP20R×2	PSN-TP20R×2	



This protection net is to protect the outdoor unit heat exchanger from external damages such as being hit by a ball.

### Protection net

HP class (kW)		Rear	Diaht	Left	
FSNP series	FSNS series	Rear	Right		
5-6(14.0-16.0)	8-12(22.4-33.5)	PN-TP20BA	PN-TP20R	PN-TP20L	
8-14(22.4-40.0)	14-18(40.0-50.0)	PN-TP20BB	PN-TP20R	PSN-TP20R	
16-18(45.0-50.0)	20-24(56.0-67.0)	PN-TP20BC	PN-TP20R	PSN-TP20R	



# Coming soon!

# airCloud Select A fresh tool to design Hitachi VRF system!

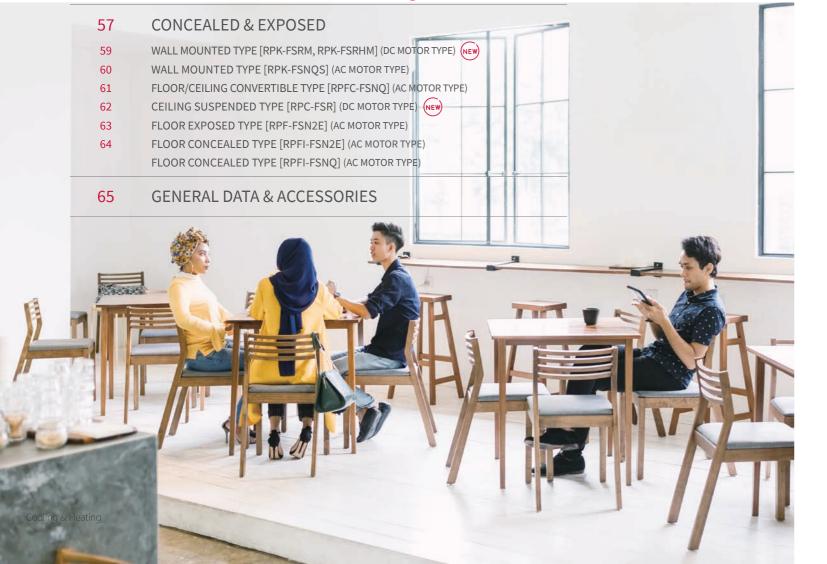
- Enjoy a super intuitive and modern interface
- Select the suitable VRF equipment for each project
- Generate automatic report for your customers

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# VRF INDOOR UNITS

37	SOLUTIONS TO BE MEMORIZED
43	DUCTED
45	HIGH ESP TYPE [RPI-FSR, RPI-FSN1] (DC MOTOR TYPE) (NEW) MEDIUM ESP TYPE [RPIM-FSR] (DC MOTOR TYPE) (NEW)
46	HIGH ESP TYPE [RPIH-HNAUNQ, RPI-FSNQ] (AC MOTOR TYPE)
	MEDIUM ESP TYPE [RPIM-HNAUNQ, RPI-FSN3Q] (AC MOTOR TYPE)
47	LOW ESP TYPE [RPIL-HNAUNQ] (AC MOTOR TYPE)
	COMPACT TYPE [RPIZ-HNDTSQ] (DC MOTOR TYPE)
48	COMPACT TYPE [RPIZ-HNATNQ] (AC MOTOR TYPE)
	LARGER AIR VOLUME TYPE [RPI-FSN2SQ] (AC MOTOR TYPE)
49	CEILING CASSETTE
51	Silent-Iconic™ (4-WAY CASSETTE RCI-FSRP DESIGN PANEL) (NEW)
53	4-WAY CASSETTE TYPE [RCI-FSRP] (DC MOTOR TYPE) (NEW)
54	4-WAY CASSETTE COMPACT TYPE [RCIM-FSRE] (DC MOTOR TYPE) (NEW)
55	2-WAY CASSETTE TYPE [RCD-FSR] (DC MOTOR TYPE) (NEW)
56	1-WAY CASSETTE TYPE [RCS-FSR] (DC MOTOR TYPE) (NEW)





# **COMFORT FIRST**

To each space its own indoor units. Our wide range of units can meet any type of requirements and space layout, and seamlessly integrate with interiors.

With seamless and quiet operation, occupants can enjoy a relaxing air without even noticing it. Advanced functions such as GentleCool or AutoBoost enable customization to occupant's preferences, while smart design will minimize the needs of maitenance. For the first time available in VRF, exclusive FrostWash™ technology will clean the coil without

# BE MEMORIZED SOLUTIONS TO

# SOLUTIONS TO BE MEMORIZED WIDE LINE-UP FOR ANY TYPE OF ROOMS



### DUCTED

HIGH ESP TYPE (DC MOTOR TYPE) RPI-FSR, RPI-FSN1



Cooling Capacity: 5.6-28.0kW ESP: Up to 200Pa for RPI-2.0-6.0FSR model,up to 230Pa for RPI-8.0/10.0FSN1 model

MEDIUM ESP TYPE (DC MOTOR TYPE) RPIM-FSR

Cooling Capacity: Cooling Capacity: 2.2-16.0kW 8.4-28.0kW ESP: High ESP ESP: 3 steps of static (90/120/180Pa) pressure (50/100/150 Pa) available

HIGH ESP TYPE (AC MOTOR TYPE) RPIH-HNAUNQ, RPI-FSNQ

RPIM-HNAUNQ, RPI-FSN3Q

Cooling Capacity: 2.2-28.0kW ESP: Medium ESP (50/80Pa for 0.8-2.5HP class, 100Pa for 8.0-10.0HP

MEDIUM ESP TYPE

(AC MOTOR TYPE)

### LOW ESP TYPE (AC MOTOR TYPE) RPIL-HNAUNQ

Cooling Capacity: 2.2-16.0kW FSP-Low FSP (30Pa for 0.8-2.5HP class, 60Pa for 3.0-6.0HP class)

COMPACT TYPE (DC MOTOR TYPE RPIZ-HNDTSQ



Cooling Capacity: 2.2-7.1kW Fan air flow rate up to 6 taps (DC motor ESP: 10/30Pa

### COMPACT TYPE (AC MOTOR TYPE) RPIZ-HNATNQ



· Cooling Capacity: 2.2-7.1kW FSP: 10/30Pa

### LARGER AIR VOLUME TYPE (AC MOTOR TYPE) RPI-FSN2SO



Cooling Capacity: 8.0-18.0kW High external static pressure: Up to 120Pa (140Pa in 7HP class)

Silent-Iconic<sup>™</sup>



# CASSETTE

4-WAY CASSETTE TYPE (DC MOTOR TYPE) RCI-FSRF

NEW



Color variation (RCI-FSRP)

Neutral White, Black, Gray and Beige options Reasonable offering to meet your comfort and operation comfort settings

Adaptive comfort for real life by multiple advanced

4-WAY CASSETTE TYPE

RCI-ESRP+P-AP160NAF2

+ SMART SENSORS

The indoor air conditioning unit that makes a statement without making "noise"

P-GP160NAP, P-GP160NAPU

### 4-WAY CASSETTE COMPACT TYPE (DC MOTOR TYPE) RCIM-FSRE



Compact 600×600mm fits a standard ceiling grid, allowing it to be easily incorporated between lighting panels

2-WAY CASSETTE TYPE (DC MOTOR TYPE) RCD-FSR



· Ideal for long, narrow spaces Install in the center of the room, it ventilates lengthways to provide a consistent

### 1-WAY CASSETTE TYPE (DC MOTOR TYPE) RCS-FSR



Ideal for smaller or narrow spaces the 1-Way Cassette can be installed in a corner or on the window side of



WALL MOUNTED TYPE (DC MOTOR TYPE)



WALL MOUNTED TYPE (AC MOTOR TYPE) RPK-FSNOS



 Economic choice for any type of room

FLOOR/CEILING CONVERTIBLE TYPE (AC MOTOR TYPE) RPFC-FSNQ



A functional solution for performance and practicality

### **CEILING SUSPENDED TYPE** (DC MOTOR TYPE) RPC-FSR



cavity or available floor

# **OTHERS**

RPK-FSRM, RPK-FSRHM



More precise and tailored comfort fo you

FLOOR EXPOSED TYPE

RPF-FSN2E

FLOOR CONCEALED TYPE RPFI-FSN2E / RPFI-FSNQ



Ideal for installation under windows and in hallways



· Can be installed in floor cavities and walls

Easily installed in spaces

# SOLUTIONS TO BE MEMORIZED

# TEMPERATURE MANAGEMENT FOR SUPERIOR COMFORT





RPIM-FSR

RPI-FSN1















RPK-FSRHM



PC-ARE1 PC-AREG

Set your comfortable temperature not only for "Room" but also for "Air" in cooling operation. To make your room reach to the desired temperature faster, the discharged air from the indoor unit can be sometimes much cooler, causing discomfort at the beginning of operation. Now, you can choose "discharge air temperature = your own comfort level", as you like, by our Advanced color wire remote controller PC-ARFG & Advanced wired remote controller PC-ARF1. You can be in comfort and avoid cold draft from the moment when cooling operation starts, while the room gently cools down.

### Potential Discomfort



GentleCool: OFF

GentleCool → No Cold Draft



GentleCool: LOW



GentleCool: MED



GentleCool: HIGH

RCI-FSRP

P-AP160NAE2

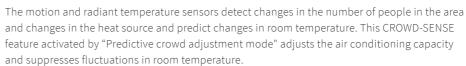
PC-ARFG



# CROWD-SENSE (NEW)

# Adjusting capacity by predicting room temperature changes due to

an increase or decrease in human activity



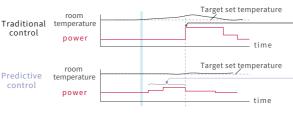
- It may not be effective when operating multiple indoor units.
- This feature may not work if the variation in the number of people is minimal or if the heat source is small.
- When the room temperature is high and the temperature difference between the radiant temperature of the floor or wall and the surface temperature of the human body is small, it may not be possible to estimate the variation in the number of people. (When the room temperature is about 30° C during the cooling process in summer, etc.)
- If the number of people decreases whilst heating is in process, this control will not work.

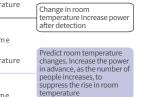
### During the cooling function

If there is a lot of change in the number of people, such as during a meeting, the capacity is adjusted by predicting changes in room temperature.







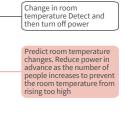


## During the heating function

If there is a lot of change in the number of people, such as during a meeting, the capacity is adjusted by predicting changes in room temperature.







# Cooling & Heating

4

# SOLUTIONS TO BE MEMORIZED

# TEMPERATURE MANAGEMENT FOR SUPERIOR COMFORT





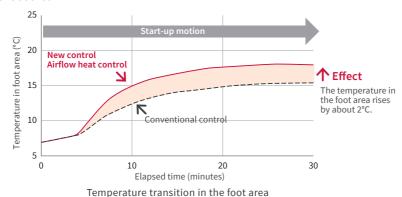


PC-ARFG

### INTELLIGENT COMFORT WITH OPTIONAL SENSOR

### Airflow heat control raises the temperature in the foot area

Activated by [FeetWarm heat air control] in comfort setting, in the heating operation, "FEETWARM" feature improves the reaching distance of warm, as well as suctions low temperature air in the room efficiently. "FEETWARM" feature raises the temperature in the foot area compared to conventional control. In addition, since warm air is blown downwards in a more effective way, this feature is effective even in a large spaces.



(average temperature 30 cm above the floor)

### BETTER WARMTH IN THE ROOM

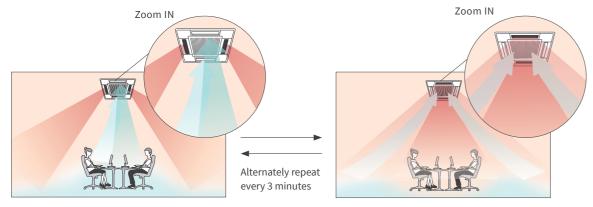
### (1) Start-up motion

When the radiant temperature sensor detects that "the area around your feet is cold", 4-way cassette closes two opposite louvers '1 and narrows the airflow area, to concentrate the air volume in the other two louvers and make the underflow air stronger '2.

This increases the air speed and makes it easier for warm air to reach the floor.

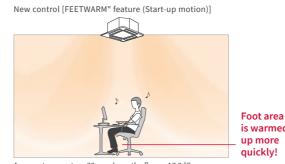
In addition, low temperature air is efficiently suctioned via the center air-inlet grill near the two opposite louvers that are currently closed. Under this Start-up motion, the operation of this close & underflows in two louvers is changed alternately every 3 minutes, so that the temperature of your foot area in the room can be quickly warmed up.

- \*1 Under this "FEETWARM" feature, the gap of closed louver is a bit wider than the gap in operation-off.
- \*2 In the case of underflow, the air may hit your body directly, possibly causing you to feel cold a bit.



Effect of start-up motion (temperature distribution near the foot area 30 minutes after starting the heating function) [Image based on calculation results]





Average temperature 30 cm above the floor = 17.9  $^{\circ}\text{C}$ 

### is warmed up more quickly!

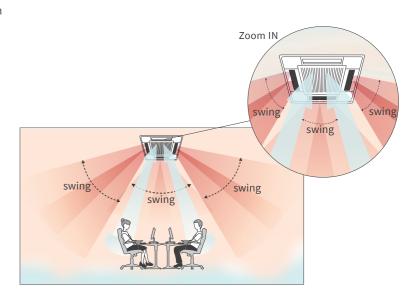


### (2) Temperature unevenness suppression motion

When the radiant temperature sensor detects that "the area around your feet is NO LONGER cold", this "FEETWARM" feature is shifted from "Start-up motion" to "Temperature unevenness suppression motion", which is to circulates the air flow more effectively in order to suppress the temperature unevenness in the foot area.

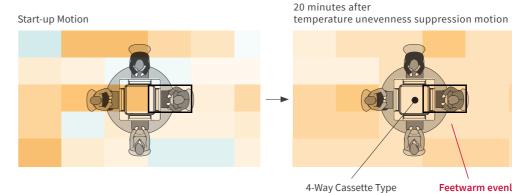
4-way cassette operates in Auto-Swing mode by letting 3 louvers open, while closing only one remaining louver.

To do so, 4-way cassette can suction the lower cold temperature more efficiently, and, help warm air circulate inside the room.



Feetwarm evenly!

Effect of temperature unevenness suppression motion (temperature distribution around the foot area)



Hitachi research] See simulation result under the following conditions above. Unit capacity: 80 type, room size: "height 3.2m, length 6.3m, width 6.3m", indoor initial temperature: 7°C, outdoor temperature: 7°C, indoor airflow temperature: 30 °C for 0-5 minutes, Gradually rise from 30 °C to 40 °C after 5 minutes, Multifunction remote control setting:

[Measurement condition Based on

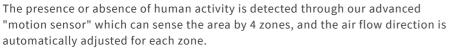
Airflow heat control "effective / long". (Note) The effect varies depending on the size of the room and the load

# SOLUTIONS TO BE MEMORIZED

# TEMPERATURE MANAGEMENT FOR SUPERIOR COMFORT

# DIRECT OR INDIRECT AIRFLOW CHOICE (NEW)











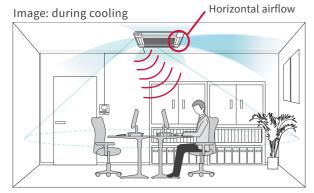
PC-ARFG PC-ARF1 P-AP160NAE2

The air conditioning sensing area is divided into 4 zones through motion sensor. Each zone corresponds to ONE louver. Selecting "Indirect" or "Direct" automatically adjusts the direction of the air flow 1 for each zone with human activity.

- \*1 In case of "absence" area, air is blown out the way PC-ARFG is set up.
- (Note) Concerning "Motion Sensor'
- If movement is little even when the room is occupied, "Motion Sensor" may not be able to detect the activity and it can operate as "absence" case.
- If an object with a temperature different from the surrounding temperature is in motion, it may be erroneously detected as human activity

### INDIRECT AIR DISTRIBUTION

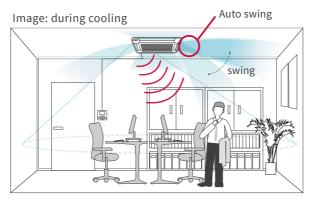
Conditioning the air by horizontal airflow only so that people won't get hit by the direct air blow



Detect people

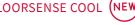
### DIRECT AIR DISTIBUTION

Conditioning the air by Auto-Swing airflow so that people can feel the direct cold air



Detect people

# FLOORSENSE COOL



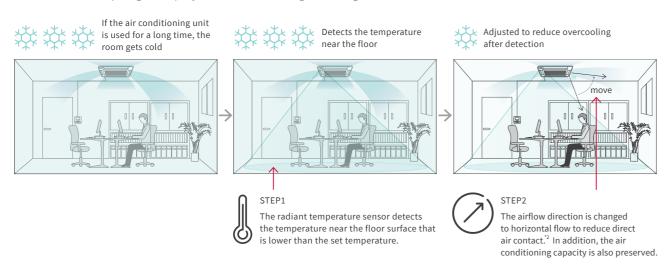
Detects the temperature near the floor to reduce overcooling





When the room has undergone prolonged cooling, the radiant temperature near the floor is detected and the air flow is automatically reduced, thus reducing the air conditioning capacity and preventing overcooling.\*

- $^{\star}1$  When a group of people return to the room or the room temperature rises due to sunlight, the cooling operation returns to normal.
- $^{\star}2$  Air flow contact varies depending on the capacity of the indoor unit and the height of the ceiling.



# SOLUTIONS TO BE MEMORIZED FOR YOUR SMARTER OPERATION

## $\mathsf{FROSTWASH}^{\mathsf{TM}}$ (NEW)

Creates frost in the heat exchanger and melts the frost Removes dirt such as dust and suppresses clogging of the heat exchanger

As the heat exchanger builds up frost, and the stored frost is melted to remove dirt. It prevents clogging of the heat exchanger, prevents the decrease in air volume and helps maintain a comfortable air environment. In addition,

"FrostWash<sup>TM</sup>" can be selected from automatic and manual.



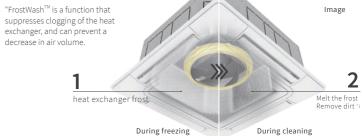








RCIM-FSRE RCD-FSR RCS-FSR RPIM-FSR (All panels) PC-ARFG



- \* 1. Dirt removal method depends on the usage environment.
  \* 2. Manual cleaning operation or automatic cleaning setting of the multifunction remote controller is required.
  \* 3. FrostWash feature is available only when VRF Outdoor units are FSNP/FSNS models only.

# POWER-SAVING MOTION SENSOR (AUTO-OFF)

The optional motion sensor enables extra energy savings by sensing the degree of activity in a room and automatically adjusting the air output to suit.



RPIM-FSR RCI-FSKDNO

(SOR-NEZ) (PS-MSK2)









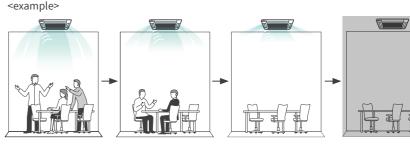
RPI-FSN1 (P-AP160NAE2) (SOR-NEC) (SOR-NED) (SOR-NES) (SOR-NEP) PC-ARF1 PC-ARFG

Image

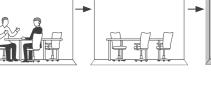
Motion sensor Detect human activity

# How does it work?

Detects the amount of human activity and activates auto-save.



# <example>





### **HOTEL SETBACK**

Off set the temperature when the space is not occupied reducing the power consumption



RPIM-FSR



RCI-FSKDNQ

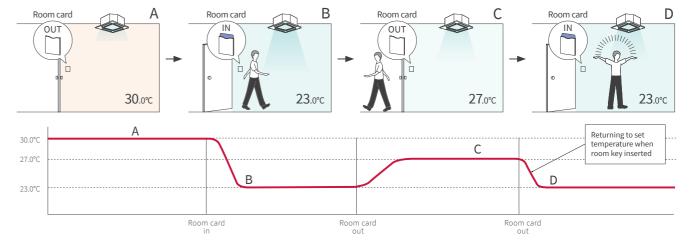








PC-ARF1 PC-ARFG



# **DUCTED**

# **KEY INFORMATION**

### FEATURES TO SUIT YOUR PROJECT SPACE

The new SET FREE  $\Sigma$  range offers our widest choice of indoor units to give you the versatility to complement any interior.



### HIGH ESP TYPE(DC MOTOR TYPE) [RPI-FSR, RPI-FSN1]

- High external static pressure available: Up to 200Pa for RPI-2.0-6.0FSR model, up to 230Pa for RPI-8.0/10.0FSN1 model . You have more design flexibility with both rear and bottom air suction directions

- available

   Setback temperature control available, leading to better operation.

   GentleCool control to ensure you are not bothered by cold draft



### MEDIUM ESP TYPE(DC MOTOR TYPE) [RPIM-FSR]

- 3 steps of static pressure (50/100/150 Pa) available You have more design flexibility with both rear and bottom air suction directions
- available
  Setback temperature control available,
- leading to better operation.

  GentleCool control to ensure you are not bothered by cold draft



### HIGH ESP TYPE (AC MOTOR TYPE) [RPIH-HNAUNQ, RPI-FSNQ]

High ESP (90/120/180Pa)
Space saving design thanks to a height of only 300mm (RPIH-HNAUNQ)



### MEDIUM ESP TYPE (AC MOTOR TYPE) [RPIM-HNAUNQ, RPI-FSN3Q]

- Medium ESP (50/80Pa for 0.8-2.5HP class, 100Pa for 8.0-10.0HP class)

  Space saving design thanks to a height of only 270mm (0.8-2.5HP class) or 470mm (8.0-10.0HP class)



### LOW ESP TYPE (AC MOTOR TYPE) [RPIL-HNAUNQ]

- 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)



### COMPACT TYPE(DC MOTOR TYPE) [RPIZ-HNDTSQ]

- I deal 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



### COMPACT TYPE (AC MOTOR TYPE) [RPIZ-HNATNQ]

- or windows thanks to the up to the compactness with 192mm height

  Drain-pump with 900mm lift as standard
- Ouiet operation level (as low as 20dB(A))



### LARGER AIR VOLUME TYPE (AC MOTOR TYPE) [RPI-FSN2SQ]

- Two external static pressure settings for better flexibility

- High external static pressure:
  Up to 120Pa (140Pa in 7HP class)
  Suitable for air distribution for multiple zone

# **COMPARISON**

### **IDU Category** Cooling (kW) 2.2 2.8 3.6 4.0 4.3 5.0 5.6 6.3 7.1 8.0 8.4 9.0 11.2 14.0 14.2 16.0 18.0 22.4 28.0 HIGH ESP TYPE (DC MOTOR TYPE) • • [RPI-FSR, RPI-FSN1] MEDIUM ESP TYPE (DC MOTOR TYPE) [RPIM-FSR] HIGH ESP TYPE (AC MOTOR TYPE) [RPIH-HNAUNQ, RPI-FSNQ] MEDIUM ESP TYPE (AC MOTOR TYPE) [RPIM-HNAUNQ, RPI-FSN3Q] LOW ESP TYPE (AC MOTOR TYPE) [RPIL-HNAUNQ] COMPACT TYPE (DC MOTOR TYPE) [RPIZ-HNDTSQ] COMPACT TYPE (AC MOTOR TYPE) [RPIZ-HNATNQ] LARGER AIR VOLUME TYPE (AC MOTOR TYPE)

# FEATURES COMPARISON

Model				HIGH ESP TYPE (8/10HP class) (DC motor)	HIGH ESP TYPE (AC motor)	HIGH/ MEDIUM ESP (8/10HP class) (AC motor)	MEDIUM/ LOW ESP TYPE (AC motor)	COMPACT TYPE (DC motor)	COMPACT TYPE (AC motor)	LARGER AIR VOLUME TYPE (AC motor)
			RPI-FSR RPIM-FSR	RPI-FSN1	RPIH- HNAUNQ	RPI-FSNQ RPI-FSN3Q	RPIM-HNAUNQ RPIL-HNAUNQ	RPIZ- HNDTSQ	RPIZ- HNATNQ	RPI-FSN2SQ
	Temperature Se	etting Rate	0.5°C/1.0°C	0.5°C/1.0°C	1.0°C	1.0°C	1.0°C	1.0°C	1.0°C	1.0°C
	Indoor Fan Spee	ed	4 taps	4 taps	3 taps	1 tap	3 taps	6 taps	3 taps	3 taps
	Louver Direction	n	-	-	-	-	-	-	-	-
	Individual Louv	er Setting	-	-	-	-	-	-	-	-
	Auto Louver Set	ting	-	-	-	-	-	-	-	-
$\sim$	Dry mode Availa	ability	•	•	•	•	•	•	•	•
	Setback (Away I	Function)	•	•	-	-	-	-	-	-
COMFORT	Cold Draft Preve	ention Availability (*1)(*4)	•	•	•	•	•	•	•	•
	Comfort setting	Control Cool Air (GentleCool) (*2)	•	•	-	-	-	-	-	-
	Direct/Indirect l	ouver direction in COOL	-	-	-	-	-	-	-	-
	Direct/Indirect l	Direct/Indirect louver direction in HEAT		-	-	-	-	-	-	-
	FeetWarm air flow control		-	-	-	-	-	-	-	-
	FloorSense Cool air flow control		-	-	-	-	-	-	-	-
	Power Saving w	ith Motion Sensor (*2)	•	•	-	-	-	-	-	-
	Outdoor Unit capacity control (*2)	Peak cut control	•	•	-	-	-	-	-	-
(H)		moderate control	•	•	-	-	-	-	-	-
VV/	Indoor Unit Rotation Control (*2)	Indoor Unit Address	•	•	-	-	-	-	-	-
POWER-SAVING		Indoor Air Temperature difference	•	•	-	-	-	-	-	-
	Automatic Fan (	· · · · · · · · · · · · · · · · · · ·	•	•	•	•	•	•	•	•
	Quick Function		•	•	-	-	-	-	-	-
	Daylight Saving		•	•	•	•	•	•	•	•
		otion visualization (*2)	•	•	-	-	-	-	-	-
MENU	Weekly Schedul		•	•	•	•	•	•	•	•
	Power-Saving S		•	•	-	-	-	-	-	-
	FrostWash™ (NEW)		•	-	-	_	_	-	-	-
	Dirty Filter Notic		•	•	•	•	•	•	•	•
QB		Sensor Condition Check	•	•	•	•	•	•	•	•
635		Model Display (*2)	•	•	-	-	-	-	-	-
MAINTENANCE	Check Menu	Indoor/Outdoor PCB Check	•	•	•	•	•	•	•	•
		Alarm History Display	•	•	•	•	•	•	•	•
	Motion Sensor	,,	SOR-NEZ	SOR-NEZ			-		-	-
(		wireless remote controller	PC-ALHZ1	PC-ALHZ1	PC-RLH11	PC-RLH11	PC-RLH11	PC-RLH11	PC-RLH11	PC-RLH11
ركه		anism availability	● (*3)		PC-ALHZ1 DUPI-361Q	PC-ALHZ1 DUPI-15H2Q	PC-ALHZ1 DUPI-131Q	PC-ALHZ1	PC-ALHZ1 ● (*3)	PC-ALHZ1
ACCESSORY	Air filter	anism availability	F-56/90/160LI B-56/90/160LI	● (*3) F-280LI B-280LI	KW-PP9/10Q	-	DUPI-361Q KW-PP7/ 8/9/10Q	● (*3) KW-PP5Q KW-PP6Q	KW-PP5Q KW-PP6Q	-

- $(^*1) \quad \text{This function is utilized to prevent cold discharged air at start-up of heating operation, after defrosting operation, etc.} \\$
- $({}^\star 2) \quad \text{Advanced wired remote controller PC-ARF1 needs to be connected.}$
- (\*3) Included as standard equipment.
- (\*4) Please consult your distributor.

44

[RPI-FSN2SQ]

# **DUCTED**

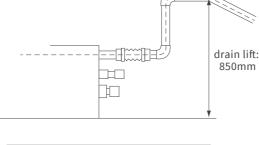
# HIGH ESP TYPE (HIGH EXTERNAL STATIC PRESSURE TYPE)



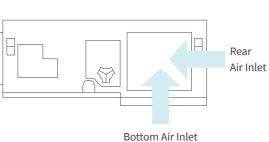
(DC MOTOR TYPE) [RPI-FSR, RPI-FSN1]

### **FEATURES AND BENEFITS**

- 1) Setback temperature control available, leading to better operation.
- 2)GentleCool control to ensure you are not bothered by cold draft
- 3) Fits a standard drain pump with 850mm lift



4) Air Inlet can be chosen from two locations



5) FrostWash<sup>™</sup>



[Constant Performance] FrostWash<sup>™</sup> can collect dirt from the coil and discharge it to outside together with condensate water, thus to maintain airflow and capacity

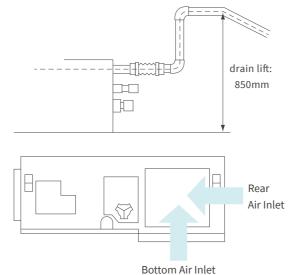
# MEDIUM ESP TYPE (MEDIUM EXTERNAL STATIC PRESSURE TYPE)



(DC MOTOR TYPE) [RPIM-FSR]

# **FEATURES AND BENEFITS**

- 1) Setback temperature control available, leading to better operation.
- 2) GentleCool control to ensure you are not bothered by cold draft
- 3) Fits a standard drain pump with 850mm lift



4) Air Inlet can be chosen from two locations

### 5) FrostWash™



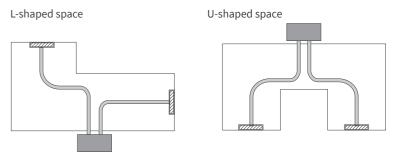
[Constant Performance] FrostWash<sup>™</sup> can collect dirt from the coil and discharge it to outside together with condensate water, thus to maintain airflow and capacity

# HIGH ESP TYPE (HIGH EXTERNAL STATIC PRESSURE TYPE)

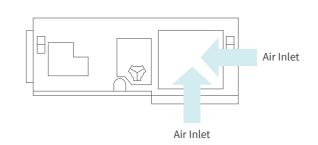
(AC MOTOR TYPE) [RPIH-HNAUNQ, RPI-FSNQ]

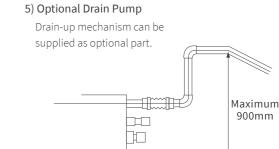
### FEATURES AND BENEFITS

- 1) High ESP (90/120/180Pa)
- 2) Space saving design thanks to a height of only 300mm (RPIH-HNAUNQ)
- 3) Flexible installation options allow for multiple configurations



4) Air Inlet





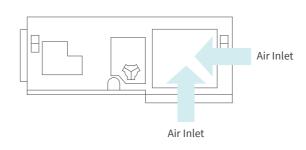
# MEDIUM ESP TYPE (MEDIUM EXTERNAL STATIC PRESSURE TYPE)

(AC MOTOR TYPE) [RPIM-HNAUNQ, RPI-FSN3Q]

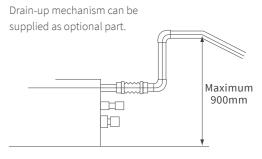
# **FEATURES AND BENEFITS**

- 1) Medium ESP (50/80Pa for 0.8-2.5HP class, 100Pa for 8.0-10.0HP class)
- 2) Space saving design thanks to a height of only 270mm (0.8-2.5HP class) or 470mm (8.0-10.0HP class)

3) Air Inlet



### 4) Optional Drain Pump



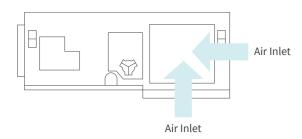
46

# LOW ESP TYPE (LOW EXTERNAL STATIC PRESSURE TYPE)

(AC MOTOR TYPE) [RPIL-HNAUNQ]

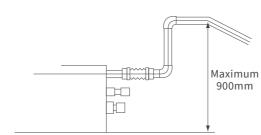
### **FEATURES AND BENEFITS**

- 1) Low ESP (30Pa for 0.8-2.5HP class, 60Pa for 3.0-6.0HP class)
- 2) Space saving design thanks to a height of only 270mm (0.8-2.5HP class) or 300mm (3.0-6.0HP class)
- 3) Air Inlet



# 4) Optional Drain Pump

Drain-up mechanism can be supplied as optional part.

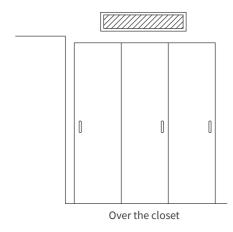


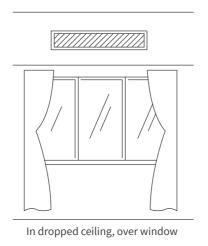
# **COMPACT TYPE**

(DC MOTOR TYPE) [RPIZ-HNDTSQ]

# **FEATURES AND BENEFITS**

- 1) Ideal for installation over the closet or windows thanks to the up to the compactness with 192mm height
- 2) Drain-pump with 900mm lift as standard optional part
- 3) Quiet operation level (as low as 22.5dB(A))
- 4) Fan air flow rate up to 6 taps (DC motor model only)



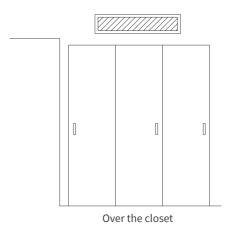


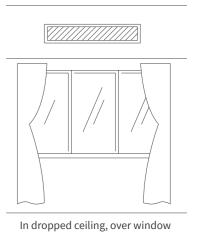
# **COMPACT TYPE**

(AC MOTOR TYPE) [RPIZ-HNATNQ]

### **FEATURES AND BENEFITS**

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



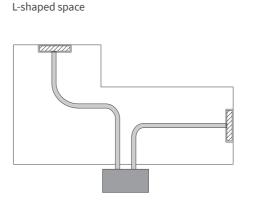


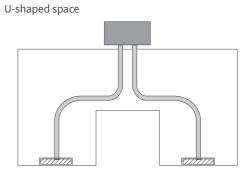
# LARGER AIR VOLUME TYPE

(AC MOTOR TYPE) [RPI-FSN2SQ]

# FEATURES AND BENEFITS

- 1) Two external static pressure settings for better flexibility
- 2) High external static pressure: Up to 120Pa (140Pa in 7HP class)
- 3) Suitable for air distribution for multiple zone
- 4) Flexible installation options allow for multiple configurations





84

### FEATURES TO SUIT YOUR PROJECT SPACE

The new SET FREE  $\Sigma$  range offers our widest choice of indoor units to give you the versatility to complement any interior.

### **CEILING CASSETTE**





Twin-Sense panel Color variation (RCI-FSRP)

(P-AP160NAE2) 4-WAY CASSETTE TYPE(DC MOTOR TYPE)

[RCI-FSRP]

- · Greater performance & Greater comfort can be achieved · Hitachi exclusive FrostWash™ equipped too.

[RCIM-FSRE]

(with P-GP160NAP)

Award-winning Silent-Iconic<sup>™</sup> to fit your indoor aesthetics.

We have also Black type Silent-Iconic<sup>™</sup>, and, Gray/Beige/Black

4-WAY CASSETTE COMPACT TYPE(DC MOTOR TYPE)

| RCIM-FSRE]

Made to give you greater design flexibility as the dimensions fit 600mm×600mm architectural module ceiling specifications

Quiet operation level (as low as 24.5dB(A))

Wide range of air flow rate ideal for high ceiling installation with 4.6m air blow down in cooling mode

Setback temperature control available, leading to better operation

SetDack temperature Control of peration.

Motion sensor available for better energy saving operation.

GentleCool control to ensure you are not bothered by cold

(with P-GP160NAPU)

· Maintenance will be enormously improved by the auto-elevation grille.



with Elevation Grille

Silent-Iconic<sup>™</sup>











- Motion sensor available for better energy saving operation
  Ideal for a higher ceiling location for installation (up to 4.6m in cooling mode)
  Individually operated louvers give room occupants more comfort

  Output Sensor
- Ouiet operation level (as low as 27dB(A))
- Setback temperature control available, leading to better
- operation.

  GentleCool control to ensure you are not bothered by cold draft

  Hitachi exclusive FrostWash<sup>TM</sup> equipped



### 4-WAY CASSETTE TYPE(DC MOTOR TYPE) [RCI-FSKDNQ]

- · With area of air distribution with 7 direction of louvers (distribution with distance available with optional parts (duct
- Motion sensor available for better energy saving operation
   Individual four-way louvres for greater comfort for individual
- · Ideal for a higher ceiling location for installation (up to 5.5m in cooling mode)

  Setback temperature control available, leading to better
- GentleCool control to ensure you are not bothered by cold





### 1-WAY CASSETTE TYPE(DC MOTOR TYPE) [RCS-FSR]

- Notion sensor available for better energy saving operation
  Optimum air flow conditions are created by either downward air discharge of frontal air discharge (via optional grille) or a combination of both
  Quiet operation level (as low as 27dB(A))
- Setback temperature control available, leading to better
- operation.
  GentleCool control to ensure you are not bothered by cold draft
  Hitachi exclusive FrostWash equipped

# **COMPARISON**

draft Hitachi exclusive FrostWash™ equipped

IDU Category		Cooling (kW)	1.6	2.2	2.8	4.0	5.6	7.1	8.0	11.2	14.0	16.0
4-WAY CASSETTE TYPE (DC MOTOR TYPE) [RCI-FSRP, RCI-FSKDNQ]	NEW				•	•	•	•	•	•	•	•
4-WAY CASSETTE COMPACT TYPE (DC MOTOR TYPE) [RCIM-FSRE]	E (NEW)		•	•	•	•	•	•				
2-WAY CASSETTE TYPE (DC MOTOR TYPE) [RCD-FSR]	NEW			•	•	•	•	•	•	•	•	•
1-WAY CASSETTE TYPE (DC MOTOR TYPE)	NEW			•	•	•	•	•	•			

# FEATURES COMPARISON

				SETTE TYPE OR TYPE)	4-WAY CASSETTE COMPACT TYPE (DC MOTOR TYPE)	2-WAY CASSETTE TYPE (DC MOTOR TYPE)	1-WAY CASSETTE TYPE (DC MOTOR TYPE)
Model			NEW		NEW	NEW	NEW
			RCI-FSRP	RCI-FSKDNQ	RCIM-FSRE	RCD-FSR	RCS-FSR
	Temperature Se	tting Rate	0.5°C/1.0°C	0.5°C/1.0°C	0.5°C/1.0°C	0.5°C/1.0°C	0.5°C/1.0°C
	Indoor Fan Spee	ed	4 taps	4 taps	4 taps	4 taps	4 taps
	Louver Direction	n	7 (*4)	7 (*4)	7 (*4)	7 (*4)	7 (*5)
	Individual Louve	er Setting	•	•	•	•	-
	Auto Louver Set	ting	•	•	•	•	•
$\sim$	Dry mode Availa	ability	•	•	•	•	•
	Setback (Away F	Function)	•	•	•	•	•
COMFORT	Cold Draft Preve	ention Availability (*1)	•	•	•	•	•
	Comfort setting	Control Cool Air (GentleCool) (*2)	•	•	•	•	•
	Direct/Indirect l	ouver direction in COOL (NEW)	•	-	-	-	-
	Direct/Indirect louver direction in HEAT		•	-	-	-	-
	FeetWarm air flow control (NEW)		•	-	-	-	-
	FloorSense Cool air flow control (NEW)		•	-	-	-	-
	Power Saving w	ith Motion Sensor (*2)	•	•	•	•	•
	Outdoor Unit capacity control (*2) Indoor Unit Rotation Control (*2)	Peak cut control	•	•	•	•	•
$\left( \overset{\leftrightarrow}{\forall} \right)$		moderate control	•	•	•	•	•
POWER-SAVING		Indoor Unit Address	•	•	•	•	•
		Indoor Air Temperature difference	•	•	•	•	•
	Automatic Fan C	Operation	•	•	•	•	•
	Quick Function	(*2)	•	•	•	•	•
	Daylight Saving	Time	•	•	•	•	•
<b>=</b>	Power Consump	otion visualization (*2)	•	•	•	•	•
MENU	Weekly Schedul	e Setting	•	•	•	•	•
	Power-Saving S	etting (*2)	•	•	•	•	•
	FrostWash™ (NEV	9	•	-	•	•	•
0.0	Dirty Filter Notic	ce Availability	•	•	•	•	•
		Sensor Condition Check	•	•	•	•	•
MAINTENANCE	Check Menu	Model Display (*2)	•	-	-	•	•
PROTEIN COL	CHECK MEHU	Indoor/Outdoor PCB Check	•	•	•	•	•
		Alarm History Display	•	•	•	•	•
	Colored Decorat	tion Panel availability	<b>●</b> (*6)	-	-	• (*6)	• (*6)
	Motion Sensor		P-AP160NAE2	PS-MSK2	SOR-NEC	SOR-NED	SOR-NES
5	Receiver Kit for	wireless remote controller	PC-ALH3	HR4A10NEWQ PC-ALH3	PC-ALHC1	PC-ALHD1	PC-ALHS1
	Drain-up mecha	nism availability	• (*3)	• (*3)	• (*3)	● (*3)	● (*3)
OPTIONAL ACCESSORY	Flesh air intake	accessory	• (*7)	-	• (*7)	• (*7)	• (*7)
	Air filter		F-160L-K F-71L-D1 F-160L-D1 B-160H3	-	-	F-90MD-K1 F-160MD-K1 B-90HD B-160HD	-

- (\*1) This function is utilized to prevent cold discharged air at start-up of heating operation, after defrosting operation, etc.
- $\begin{tabular}{ll} (\begin{tabular}{ll} (\begin$
- (\*3) Included as standard equipment.
- $({}^\star 4) \quad 7 \text{ steps are avilable by individual louver setting.} \ 5 \text{ steps only in the operation of Cooling or Dry.}$
- (\*5) 5 steps only in the operation of Cooling or Dry.

- (\*6)  $\,$  3 colors available (Beige, Grey and Black).
- (\*7) Optional parts: Duct Adapter is availbale. Please consult your distributor.

CEILING CASSETTE



# Silent-Iconic<sup>™</sup>

4-way Cassette Design Panel

A design panel in harmony with the space that responds to the needs of architectural designers



Award Winning





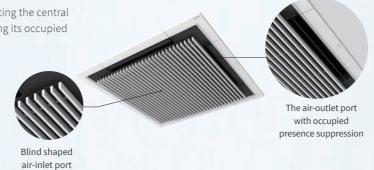






# The design is well-matched to the space

It is designed to harmonize with the space by creating the central part to be a blind shaped air-inlet port and reducing its occupied presence by darkening the air-outlet port.



# Try it with iPhone!!

In AR (Augmented Reality), you can see the image of "4-way Cassette Air Conditioner" and "Silent-Iconic™" installed in the actual space.













# Operating environment

Air Conditioner

[Device] iPhone

iPhone 11 Pro / iPhone 11 Pro Max / iPhone 11 / iPhone XS / iPhone XS Max / iPhone XR / iPhone X / iPhone 8 Plus / iPhone 8 / iPhone 7 Plus / iPhone 7 / iPhone 6s Plus / iPhone 6s / iPhone SE

iPad<sup>\*2</sup> iPad Pro (all models) / iPad (6th generation) / iPad (5th generation)

[OS] iOS<sup>\*3</sup> 12.1 or later

Safari\*4/Google Chrome\*5/Firefox\*6







# Instructions for use

# 1. Scan the QR code<sup>\*7</sup> and open the web page

Display the web page with a QR code, URL,



### 2. Tap the icon

Tap the icon displayed at the bottom right of the 3D Viewer. If the icon is not displayed, please unhide it in Safari or check the OS version.



### 3. AR mode is activated

Hold out the camera toward the ceiling and get it to detect the environment by moving it in a circular motion. You may not be able to scan a single-colored ceiling so scan a place where objects such as downlights or ceiling ventilation fans are installed.



# 4. Adjustment of placement location

You can shift then move it with a single finger, and rotate or zoom it out/zoom it in with two fingers to adjust the size that fits the space. There is also a capture button, so you can take and share the pictures you have placed.

- $^{\star}1\,$  iPhone is a trademark of Apple Inc., registered in the United States and other countries.
- \*2 iPad is a trademark of Apple Inc., registered in the United States and other countries.
- \*3 iOS is the Operating System name of Apple Inc. iOS is a registered trademark or trademark of Cisco Systems, Inc. or its affiliates in the United States and other countries and is used under license.
- $^{\star}4$  Safari is a trademark of Apple Inc., registered in the United States and other countries.
- \*5 Google Chrome is a trademark or registered trademark of Google Inc.
- \*6 Firefox is a trademark or registered trademark of the United States Mozilla Foundation in the United States and other countries.
- \*7 QR code is a registered trademark of Denso Wave Incorporated.

# 4-WAY CASSETTE TYPE (NEW)

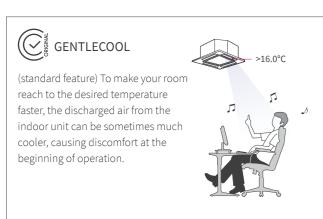
(DC MOTOR TYPE) [RCI-FSRP]

# LINE-UP

Normal	Smart	Asthetics	Maintenance
Standard	with motion sensor + radiant temperature sensor	Color Panel Design Panel	Silent-Iconic with Elevation Grille
P-AP160NA3	P-AP160NAE2	-	P-GP160NAPU
		Standard (Custom Order)  Beige Gray Black  Silent-Iconic <sup>™</sup> (P-GP160NAP)  White Black	
(H×W×D) 40×950×950(mm)	(H×W×D) 40×950×950(mm)	Standard (H×W×D) 40×950×950(mm) Silent-Iconic <sup>™</sup> (H×W×D) 52×950×950(mm)	(H×W×D) 52×950×950(mm)

# Twin-Sense Cassette

Adaptive comfort for real life





# FEETWARM

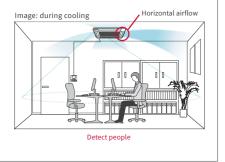
(with radiant temperature sensor) optimization of IDU air flow direction during heating mode by to make sure that leg zone is consistently





# (NEW) FLOORSENSE COOL

(with radiant temperature sensor) optimize both IDU air flow & cooling capacity to prevent floor overcooling





# (NEW) CROWD-SENSE

(with motion sensor + radiant temperature sensor) In case of occupancy changes, predictive adjustment of cooling or heating operation to prevent fluctuations of indoor temperature due to human body heat.



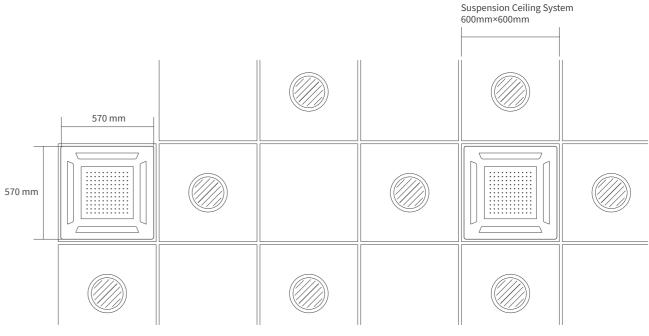
# 4-WAY CASSETTE COMPACT TYPE (NEW)



(DC MOTOR TYPE) [RCIM-FSRE]

### **FEATURES AND BENEFITS**

1) Compact



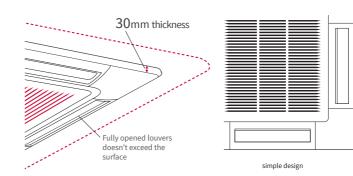
The compact 600×600mm footprint fits a standard ceiling grid, allowing it to be easily incorporated between lighting panels, being ideal for the small place installation!

# 2) Top-class silent operation As quiet as gentle breeze

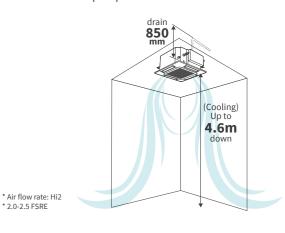


DU Capacity HP(Class)	0.6	0.8	1	1.5	2	2.5	
ound pressure level (dB(A))	24.5	24.5	24.5	27.5	31	35	
Air flow rate: Lo	20dB(A) CLOCK				DdB(A) DNIGHT		IB(A)

3) Aesthetics



4) Suitable for high ceiling space Standard drain-pump with 850mm lift



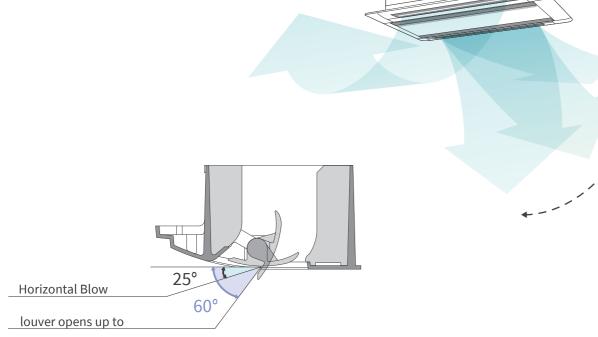
5) FrostWash™



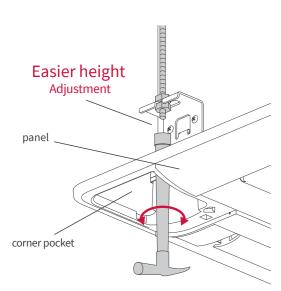
[Constant Performance] FrostWash<sup>™</sup> can collect dirt from the coil and discharge it to outside together with condensate water, thus to maintain airflow and capacity

# FEATURES AND BENEFITS

1) Control air flow with individual louvers Suitable environment can be achieved for each person



2) The height of the space for installing the unit can be fine-tuned



3) Suitable for high ceiling space

Standard drain-pump with 850mm lift

\* Air flow rate: Hi2 \* 2.0-6.0 FSR 4.6m

4) FrostWash™



[Constant Performance] FrostWash<sup>™</sup> can collect dirt from the coil and discharge it to outside together with condensate water, thus to maintain airflow and capacity

# 1-WAY CASSETTE TYPE (NEW)



(DC MOTOR TYPE) [RCS-FSR]

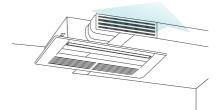
### **FEATURES AND BENEFITS**

# 1) 3 installation types selectable



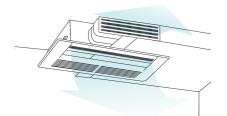
# Corner type (standard)

Allows for ceiling planning for lighting and interiors, suitable for installation in the perimeter zone near the window



# Clipped ceiling (one-way) type

Suitable for design that focuses on lighting and clipped ceilings, in case the unit is unable to be directly embedded in the ceiling

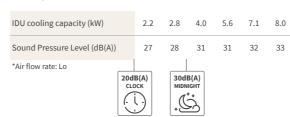


# Clipped ceiling (two-way) type

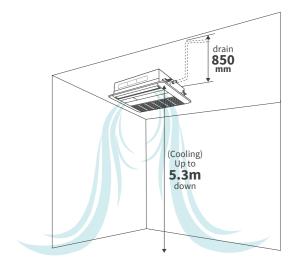
Provides increased comfort through two-direction airflow by utilizing the advantages of installation on a clipped ceiling. Room temperature distribution can be improved by both forward airflow and downward airflow

### 2) Quiet operation

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



4) Suitable for high ceiling space Standard drain-pump with 850mm lift



3) FrostWash™



[Constant Performance] FrostWash<sup>™</sup> can collect dirt from the coil and discharge it to outside together with condensate water, thus to maintain airflow and capacity

\*Air flow rate: Hi2 \*2.5-3.0 FSR

\*standard corner type

CEILING CASSETTE

# **CONCEALED & EXPOSED**

# **KEY INFORMATION**

### FEATURES TO SUIT YOUR PROJECT SPACE

The new SET FREE  $\Sigma$  range offers our widest choice of indoor units to give you the versatility to complement any interior.





WALL MOUNTED TYPE (DC MOTOR TYPE) [RPK-FSRM, RPK-FSRHM]

- Simple installation procedure
   Flexible discreet design suitable for any interior
   Without expansion-valve model available for 0.6-1.5 for more
- silent indoor space Setback temperature control available, leading to better
- operation.

  GentleCool control to ensure you are not bothered by cold draft.





CEILING SUSPENDED TYPE (DC MOTOR TYPE) [RPC-FSR]



WALL MOUNTED TYPE (AC MOTOR TYPE) [RPK-FSNQS]

- Flexible discreet design suitable to any interior



FLOOR/CEILING CONVERTIBLE TYPE (AC MOTOR TYPE) [RPFC-FSNQ]

- Each unit can be floor mounted or ceiling suspended
   Easy installation
   Fresh air-intake design



- [RPC-FSR]
  I deal for a higher ceiling
  (up to 5.6m in cooling)
  Better power-saving with optional Motion Sensor
  Quiet operation level
  (as low as 28dB(A))
  Setback temperature control available, leading to better operation.
  GentleCool control to ensure you are not bothered by cold draft
  FrostWash™



FLOOR EXPOSED TYPE (AC MOTOR TYPE) [RPF-FSN2E]

- Little installation space required, with only 220mm depth
   Suitable for installation under a window, with a 630mm height



FLOOR CONCEALED TYPE (AC MOTOR TYPE) [RPFI-FSN2E] / [RPFI-FSNQ]

- When there is no ceiling void, this unit gives you a minimal, low visibility option as it can be installed in floor cavities and
- waits
  Little installation space required, with only 202/220mm depth
  Suitable for installation under a window, with a 620mm height

# **COMPARISON**

ID	U Category	Cooling (kW)	1.7	2.2	2.8	3.6	4.0	4.3	5.0	5.6	6.3	7.1	8.0	8.4	9.0	11.2	14.0	14.2	16.0
	WALL MOUNTED TYPE (DC MOTOR TYPE) [RPK-FSRM, RPK-FSRHM]		•	•	•		•			•		•	•			•			
	WALL MOUNTED TYPE (AC MOTOR TYPE) [RPK-FSNQS]			•	•	•	•		•	•	•								
& EXPOSED	FLOOR / CEILING CONVERTIBLE TYPE (AC MOTOR TYPE) [RPFC-FSNQ]								•	•	•	•		•	•	•		•	
	CEILING SUSPENDED TYPE (DC MOTOR TYPE) [RPC-FSR]						•			•		•	•			•	•		•
CONCEALED	FLOOR EXPOSED TYPE (AC MOTOR TYPE) [RPF-FSN2E]	NO DESCRIPTION			•		•			•		•							
	FLOOR CONCEALED TYPE (AC MOTOR TYPE) [RPFI-FSN2E]				•		•			•		•							
	FLOOR CONCEALED TYPE (AC MOTOR TYPE) [RPFI-FSNQ]				•			•		•		•							

# **FEATURES COMPARISON**

			WALL M	OUNTED PE	FLOOR/CEILING CONVERTIBLE TYPE	CEILING SUSPENDED TYPE	FLOOR EXPOSED TYPE	FLOOR CONCEALED TYPE
Model			NEW			(NEW)		
			RPK-FSRM RPK-FSRHM	RPK-FSNQS	RPFC-FSNQ	RPC-FSR	RPF-FSN2E	RPFI-FSN2E RPFI-FSNQ
	Temperature Se	etting Rate	0.5°C/1.0°C	1.0°C	1.0°C	0.5°C/1.0°C	1.0°C	1.0°C
	Indoor Fan Spe	ed	4 taps	3 taps	3 taps	4 taps	3 taps	3 taps
	Louver Directio	n	7 (*5)	7 (*5)	7 (*5)	7 (*5)	-	-
	Individual Louv	er Setting	-	-	-	-	-	-
	Auto Louver Set	tting	-	•	-	-	-	-
$\sim$	Dry mode Avail	ability	•	•	•	•	•	•
	Setback (Away	Function)	•	-	-	•	-	-
COMFORT	Cold Draft Preve	ention Availability (*1) (*6)	•	-	•	•	•	•
	Comfort setting	Control Cool Air (GentleCool) (*2)	•	-	-	•	-	-
	Direct/Indirect	louver direction in COOL	-	-	-	-	-	-
	Direct/Indirect	louver direction in HEAT	-	-	-	-	-	-
	FeetWarm air fl	ow control	-	-	-	-	-	-
	FloorSense Coo	ol air flow control	-	-	-	-	-	-
	Power Saving w	vith Motion Sensor (*2)	-	-	-	•	-	-
	Outdoor Unit	Peak cut control	•	-	-	•	-	-
(H)	capacity control (*2)	moderate control	•	-	-	•	-	-
POWER-SAVING	Indoor Unit	Indoor Unit Address	•	-	-	•	-	-
r OWEN-SAVING	Rotation Control (*2)	Indoor Air Temperature difference	•	-	-	•	-	-
	Automatic Fan	Operation	•	•	•	•	•	•
	Quick Function	(*2)	•	-	-	•	-	-
	Daylight Saving	; Time	•	•	•	•	•	•
	Power Consum	ption visualization (*2)	•	-	-	•	-	-
MENU	Weekly Schedu	le Setting	•	•	•	•	•	•
	Power-Saving S	Setting (*2)	•	-	-	•	-	-
	FrostWash™ (NE	w)	-	-	-	•	-	-
	Dirty Filter Noti		•	•	•	•	•	•
S		Sensor Condition Check	•	•	•	•	•	•
50		Model Display (*2)	-	-	-	•	-	-
MAINTENANCE	Check Menu	Indoor/Outdoor PCB Check	•	•	•	•	•	•
		Alarm History Display	•	•	•	•	•	•
	Motion Sensor		-	-	-	SOR-NEP	-	-
	Receiver Kit for	wireless remote controller	PC-ALHZ1	PC-RLH11 (*7) PC-ALHZ1	PC-RLH11 (*7) PC-ALHZ1	PC-ALHP1	PC-ALHZ1	PC-RLH11 (*7
(C)	Drain-up mecha	anism availability	-	-	-	DUPC-63K1 DUPC-71K1 DUPC-160K1	-	PC-ALHZ1 -
OPTIONAL ACCESSORY	Air filter		-	<b>●</b> (*6)	-	-	-	-
	Strainer kit		MSF-NP63A1 MSF-NP112A1 MSF-NP36AH1	MSF-NP63A1	-	-	-	-

- $({}^\star 1) \quad \text{This function is utilized to prevent cold discharged air at start-up of heating operation, after defrosting operation, etc.}$
- (\*2) Advanced wired remote controller PC-ARF1 needs to be connected.
- (\*3) Included as standard equipment.
- (\*4) 7 steps are avilable 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) Please consult your distributor for the availability.
- (\*7) Basic Receiver kit (PC-RLH11) is equipped with the unit in package as standard optional part with Wireless Remote Controller (PC-LH7QE).

# WALL MOUNTED TYPE



(DC MOTOR TYPE) [RPK-FSRM, RPK-FSRHM]

### FEATURES AND BENEFITS

- 1) Simple installation procedure
- 2) Flexible discreet design suitable for any interior
- 3) Without expansion-valve model available for 0.6-1.5HP class for more silent indoor space
- 4) Hotel Setback feature available, leading to better operation
- 5) GentleCool control to ensure you are not bothered by cold draft



# WALL MOUNTED TYPE

(AC MOTOR TYPE) [RPK-FSNQS]

Discontinued in 2021 Please consult your distributor for more detail

### FEATURES AND BENEFITS

# 1) Simple installation procedure

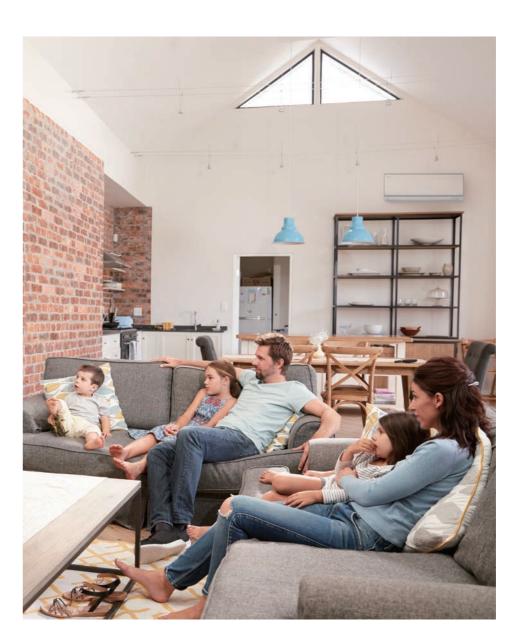
Refrigerant piping can be connected from the rear, base, or left of the unit, providing much greater flexibility for piping and selection of installation sites.

### 2) 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.

### 3) 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.



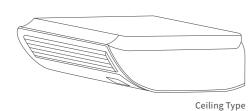
# FLOOR/CEILING CONVERTIBLE TYPE

(AC MOTOR TYPE) [RPFC-FSNQ]

### FEATURES AND BENEFITS

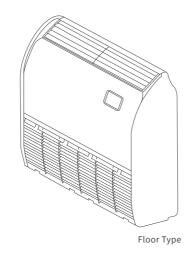
# 1) Adapts to both floor and ceiling [CEILING USE]

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.



### 2) 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.



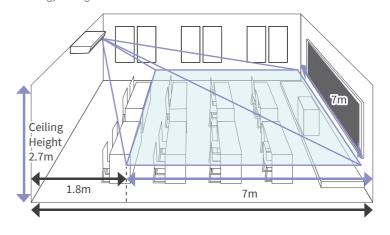
# CEILING SUSPENDED TYPE (NEW)

(DC MOTOR TYPE) [RPC-FSR]

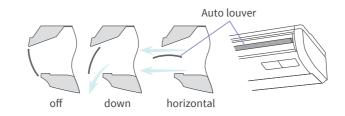
### FEATURES AND BENEFITS

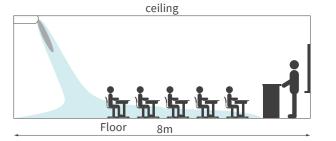
# 1) Wide Detection area of motion sensor (SOR-NEP)

(Optional part) to achieve better energy-saving



### 2) Auto louver





# 3) New design in fan inlet and fan resulted in the low sound pressure

Cooling capacity (kW)	4.0	8.0	0 11.	2 14.0
Sound Pressure Level (dB(A))	28	29	32	2 35
*Air flow rate: Lo	B(A)		30dB(A) MIDNIGHT	

4) FrostWash<sup>™</sup>

[Constant Performance] FrostWash $^{TM}$  can collect dirt from the coil and discharge it to outside together with condensate water, thus to maintain airflow and capacity

# 5) Suitable for high ceiling space

IDU Capacity HP(Class)

Height (m)	3.5	4.3
* air flow volume: high		
	(Option) drain 600 mm	

\* Air flow rate: Hi2

4.0-6.0

\* 4.0-6.0 FSR

Up to **5.6m** 

62

CONCEALED & EXPOSED

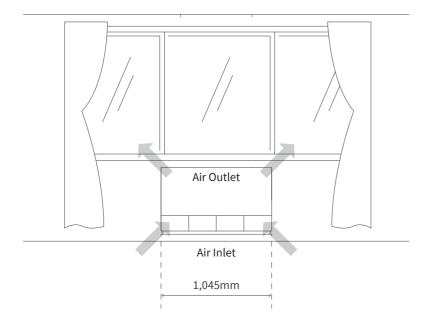
# **CONCEALED & EXPOSED**

# FLOOR EXPOSED TYPE

(AC MOTOR TYPE) [RPF-FSN2E]

### FEATURES AND BENEFITS

Floor Exposed units can be installed with a minimum of disruption to walls and floors, making them an excellent retrofitting option. The 220mm depth means that little installation space is required. With a total height of up to 630mm, they are well suited to installation beneath a window.





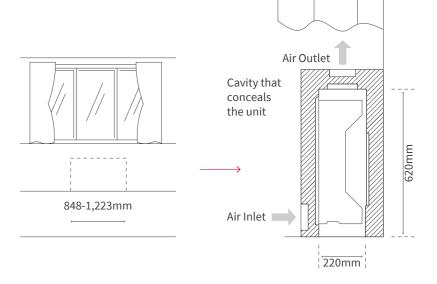
# FLOOR CONCEALED TYPE

(AC MOTOR TYPE) [RPFI-FSN2E]

### FEATURES AND BENEFITS

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 220mm depth.



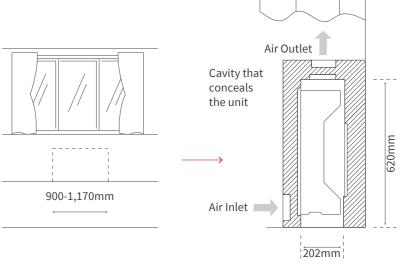
# FLOOR CONCEALED TYPE

(AC MOTOR TYPE) [RPFI-FSNQ]

# FEATURES AND BENEFITS

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.



64

CONCEALED & EXPOSED

# **GENERAL DATA & ACCESSORIES**

# HIGH ESP TYPE (HIGH EXTERNAL STATIC PRESSURE TYPE) (NEW)

(DC MOTOR TYPE) [RPI-FSR, RPI-FSN1]





Model			RPI-2.0FSR	RPI-2.5FSR	RPI-3.0FSR	RPI-4.0FSR	RPI-5.0FSR	RPI-6.0FSR	RPI-8.0FSN1	RPI-10.0FSN1
Indoor Unit Power	Supply		АС 1Ф, [220-240	0V/50Hz] [220V/60	Hz]					
Nominal Cooling C	apacity	kW	5.6	7.1	8.0	11.2	14.0	16.0	22.4	28.0
Nominal Heating C	apacity	kW	6.3	8.5	9.0	12.5	16.0	18.0	25.0	31.5
Sound Pressure Le (Overall A Scale)(H		dB(A)	41/38/35/32	37/35/32/30	39/36/33/31	40/37/34/32	42/39/36/33	44/40/37/34	44/40/37/34	44/40/37/34
Sound Power Leve (Overall A Scale)(H		dB(A)	59/56/53/50	55/53/50/48	57/54/51/49	58/55/52/50	60/57/54/51	62/58/55/52	45/43/40/36	50/48/46/39
Outer Dimensions	H×W×D	mm	300×700×800	300×1,050×800	300×1,050×800	300×1,400×800	300×1,400×800	300×1,400×800	470×1,380×1,060	470×1,380×1,06
Net Weight		kg	29	38	38	48	48	48	94	94
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan	Air Flow Rate (Hi2/Hi/Me/Lo)	m³/min (cfm)	14.5/13/ 11/9.5 (512/459/ 388/335)	18.5/16.5/ 14.5/12 (653/582/ 512/423)	20/17.5/ 15.5/13 (706/618/ 547/459)	30/26.5/ 23/20 (1,059/935/ 812/706)	33.5/29.5/ 26/22 (1,182/1,041/ 917/776)	36/31.5/ 27.5/24 (1,270/1,112/ 970/847)	63/58/ 50/38 (2,224/2,048/ 1,765/1,341)	80/72/ 64/48 (2,825/2,542/ 2,260/1,695)
External Pressure (	*3)	Pa	50(100-200)	50(100-200)	50(100-200)	50(100-200)	50(100-200)	50(100-200)	50(100-230)	50(100-230)
Motor		W	157	190	190	259	259	259	840	840
Connections		m <sup>3</sup>	Flare-Nut Conn	ection (with Flare	· Nuts)					
	Liquid Line	mm	Ф6.35	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Refrigerant Piping	Gas Line	mm	Ф12.7	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф19.05	Ф22.2
	Condensate Drain	ı	VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packi	ng Measurement	m³	0.28	0.39	0.39	0.50	0.50	0.50	0.97	0.97
Receiver kit	Advanced		PC-ALHZ1			NOTES:				44
Motion Sensor			SOR-NEZ			<ol> <li>The nominal cool solit system, and i</li> </ol>	ing capacity is the is based on the JIS		or the Hitachi stan	dard
Condensate Drain	Pump Kit		- (included as s	tandard equipme	nt)	Cooling Operation			ing Operation Conc	litions
	2.0 (HP Cla	ass)	F-56LI			Indoor Air Inlet Te	emperature: 2	7.0°C DB Indo	or Air Inlet Tempera	ature: 20.0°C
Antifungal Long-Life Filter	2.5-3.0 (HF	Class)	F-90LI			Outdoor Air Inlet		9.0°C WB Outo 5.0°C DB	loor Air Inlet Tempe	erature: 7.0°C D 6.0°C V
Long-Life i ittel	4.0-6.0 (HF	Class)	F-160LI			Piping Length:7.5	metre	Pipir	ng Length:7.5 metre	
-11: - 6	2.0 (HP Cla	ass)	B-56LI			Piping Lift:0 metre			ng Lift:0 metre	
Filter Box for Long-Life Filter	2.5-3.0 (HF	Class)	B-90LI			2. The sound pressu			ons. 1.5 metre Bene . Voltage of the pow	
Long Life I litter	4.0-6.0 (HF	Class)	B-160LI						. vollage of the pow d in an anechoic ch	
1 116 511 1611	,									

# MEDIUM ESP TYPE(MEDIUM EXTERNAL STATIC PRESSURE TYPE) (NEW)

(DC MOTOR TYPE) [RPIM-FSR]

MotioFilter Boxn Sensor 8.0-10.0 (HP Class) B-280LI

Long-Life Filter

8.0-10.0 (HP Class) F-280LI



reflected sound should be taken into consideration in the field.

3. The data for external pressure (\*3) indicates "Standard Pressure Setting (High Pressure Setting1 - High Pressure Setting2)" values when a filter is not used. The sound pressure level is based on the Standard Pressure Setting.

reflected sound should be taken into consideration in the field.

3. The data for external pressure (\*3) indicates "Standard Pressure Setting (High Pressure Setting1 - High Pressure Setting2)" values when a filter is not used. The sound pressure level is based on the Standard Pressure Setting.



Model			RPIM-0.8FSR	RPIM-1.0FSR	RPIM-1.5FSR	RPIM-2.0FSR	RPIM-2.5FSR	RPIM-3.0FSR	RPIM-4.0FSR	RPIM-5.0FSR	RPIM-6.0FSR
Indoor Unit Power	Supply		АС 1Ф, [220-24	40V/50Hz] [220\	V/60Hz]						
Nominal Cooling C	apacity	kW	2.2	2.8	4.0	5.6	7.1	8.0	11.2	14.0	16.0
Nominal Heating C	apacity	kW	2.5	3.2	4.8	6.3	8.5	9.0	12.5	16.0	18.0
Sound Pressure Le (Overall A Scale)(H		dB(A)	32/30/28/27	33/31/29/28	38/35/32/30	40/37/34/31	37/35/33/31	38/36/33/31	40/38/35/32	42/39/36/34	43/40/37/34
Sound Power Leve (Overall A Scale)(H	•	dB(A)	50/48/46/45	51/49/47/46	56/53/50/48	58/55/52/49	55/53/51/49	56/54/51/49	58/56/53/50	60/57/54/52	61/58/55/52
Outer Dimensions	H×W×D	mm	250×700×800	250×700×800	250×700×800	250×700×800	250×1,050×800	250×1,050×800	250×1,400×800	250×1,400×800	250×1,400×800
Net Weight		kg	26	26	27	27	36	36	44	44	44
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan	Air Flow Rate (Hi2/Hi/Me/Lo)	m³/min (cfm)	8.5/7.5/ 6.5/5.5 (300/265/ 229/194)	9.5/8.5/ 7.5/6.5 (335/300/ 265/229)	13/11.5/ 10/8.5 (459/406/ 353/300)	14.5/13/ 11/9.5 (512/459/ 388/335)	18.5/16.5/ 14/12 (653/582/ 494/423)	20/17.5/ 15.5/13 (706/618/ 547/459)	30/26.5/ 23/20 (1,059/935/ 812/706)	33.5/29.5/ 26/22 (1,182/1,041/ 917/776)	36/31.5/ 27.5/24 (1270/1,112/ 970/847)
External Pressure (	*3)	Pa	50(100-150)	50(100-150)	50(100-150)	50(100-150)	50(100-150)	50(100-150)	50(100-150)	50(100-150)	50(100-150)
Motor		W	157	157	157	157	190	190	259	259	259
Connections		m³	Flare-Nut Con	nection (with F	lare Nuts)						
	Liquid Line	mm	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Φ9.52	Φ9.52	Ф9.52	Ф9.52	Ф9.52
Refrigerant Piping	Gas Line	mm	Ф12.7	Ф12.7	Ф12.7	Ф12.7	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88
	Condensate Drain	ı	VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packi	ng Measurement	m <sup>3</sup>	0.24	0.24	0.24	0.24	0.33	0.33	0.42	0.42	0.42
Receiver kit	Advanced		PC-ALHZ1			NOTES:			5 61 1	e. 1	
Motion Sensor			SOR-NEZ				cooling capacity and is based on			litacni standard	
Condensate Drain	Pump Kit		- (included as	standard equip	oment)		ration Conditions			ration Conditions	
A 4: f 1	0.8-2.0 (HF	P Class)	F-56LI				let Temperature:	27.0°C DB	Indoor Air Inl	et Temperature:	20.0°C DB
Antifungal Long-Life Filter	2.5-3.0 (HF	P Class)	F-90LI			Outdoor Air	Inlet Temperature	19.0°C WB e: 35.0°C DB	Outdoor Air I	nlet Temperature	e: 7.0°C DB 6.0°C WB
20116 2110 111101	4.0-6.0 (HF	P Class)	F-160LI			Piping Lengt	h:7.5 metre	00.0 0 55	Piping Lengtl		0.0 0 112
Filter Deviden	0.8-2.0 (HP	Class)	B-56LI			Piping Lift:0			Piping Lift:0 r		
Filter Box for Long-Life Filter	2.5-3.0 (HP	Class)	B-90LI				ressure level is ba act (2.0 metre) an				
20119 2.1.01 11101	4.0-6.0 (HP	Class)	B-160LI			indoor fan m	otor is 220V. The	above data was i	measured in an a		

## **HIGH ESP TYPE** (HIGH EXTERNAL STATIC PRESSURE TYPE)

(AC MOTOR TYPE) [RPIH-HNAUNQ, RPI-FSNQ]



Model				RPIH-3.0HNAUNQ	RPIH-3.3HNAUNQ	RPIH-4.0HNAUNQ	RPIH-5.0HNAUNQ	RPIH-6.0HNAUNQ	RPI-8.0FSNQ	RPI-10.0FSNQ
Indoor Unit Power S	Supply	,		AC 1Φ, [220-240V/5	50Hz]				АС 3Ф, [380-415V/5	50Hz]
Nominal Capacity	Coolir	ng	kW	8.4	9.0	11.2	14.2	16.0	22.4	28.0
Nominal Capacity	Heati	ng	kW	9.6	10.0	13.0	16.3	18.0	25.0	31.5
Sound Pressure Level	(Hi/M	e/Lo)	dB(A)	42/39/34	42/39/34	43/39/34	44/41/37	48/42/37	50	52
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	470×1,060×1,120	470×1,250×1,120
Net Weight			kg	45	45	45	53	54	96	104
Refrigerant				R410A	R410A	R410A	R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/M	e/Lo)	m³/min	30/28/23	30/28/23	30/28/23	35.5/32/27	41/33/26	58	72
External Static Pres	sure (*	3)	Pa	120(90)	120(90)	120(90)	120(90)	120(90)	180	180
Connections				Flare-Nut Connect	ion (with Flare Nuts	5)			Brazing	
Refrigerant Piping	Liquid	l Line	mm	Ф9.52	Ф9.52	Ф9.52	Ф9.52	Ф9.52	Ф9.52	Ф9.52
Diameter	Gas Li	ine	mm	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф19.05	Ф22.23
Condensate Drain				VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packir	ng Volu	ıme	m <sup>3</sup>	0.40	0.40	0.40	0.49	0.49	0.90	1.06
		Basic		PC-RLH11						
Receiver Kit		Advanced		PC-ALHZ1						
Candanasta Daria Dari	1/24	PRIH-HNAU	JNQ	DUPI-361Q						
Condensate Drain Pun	iip Kit -	PRI-FSNQ		DUPI-15H2Q						
Air filter		3.0-4.0 (HP	class)	KW-PP9Q						
All litter		5.0-6.0 (HP	class)	KW-PP10Q						

- $1. \ {\it The cooling capacities above show the maximum capacities when the outdoor}$ and indoor temperature are under the following conditions.
- Cooling Operation Conditions Indoor Air Inlet Temperature:
- Outdoor Air Inlet Temperature: 35.0°C DB Piping Length:7.5 metre Piping Lift:0 metre
- Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature: Piping Length:7.5 metre Piping Lift:0 metre
- 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

# MEDIUM ESP TYPE(MEDIUM EXTERNAL STATIC PRESSURE TYPE)

(AC MOTOR TYPE) [RPIM-HNAUNQ, RPI-FSN3Q]



Model			RPIM- 0.8HNAUNQ	RPIM- 1.0HNAUNQ	RPIM- 1.3HNAUNQ	RPIM- 1.5HNAUNQ	RPIM- 1.8HNAUNQ	RPIM- 2.0HNAUNQ	RPIM- 2.3HNAUNQ	RPIM- 2.5HNAUNQ	RPI- 8.0FSN3Q	RPI- 10.0FSN3Q
Indoor Unit Power	Supply		АС 1Ф, [220-	240V/50Hz]							АС 3Ф, [380-	415V/50Hz]
N :   C : b -	Cooling	kW	2.2	2.8	3.6	4.3	5.0	5.6	6.3	7.1	22.4	28.0
Nominal Capacity	Heating	kW	2.8	3.3	4.2	4.9	5.6	6.5	7.5	8.5	25.0	31.5
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	32/27/24	32/27/24	35/33/28	35/33/28	35.5/33/28	35.5/33/28	39/34/26	39/34/26	50	52
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	270×975 ×720	470×1,060 ×1,120	470×1,250 ×1,120
Net Weight		kg	24	24	25	25	31	31	32	32	96	104
Refrigerant			R410A	R410A								
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m³/min	10/8/7	10/8/7	12/11/9	12/11/9	16/14/11.5	16/14/11.5	20/16/11	20/16/11	58(56*)	72(70*)
External Static Pres	sure (*3)	Pa	50(80)	50(80)	50(80)	50(80)	50(80)	50(80)	50(80)	50(80)	100	100
Connections			Flare-Nut Co	nnection (wit	h Flare Nuts)						Brazing	
Refrigerant Piping	Liquid Line	mm	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф9.52	Ф9.52	Ф9.52	Ф9.52
Diameter	Gas Line	mm	Ф12.7	Ф12.7	Ф12.7	Ф12.7	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф19.05	Ф22.23
Condensate Drain			VP25	VP25								
Approximate Packii	ng Volume	m³	0.22	0.22	0.22	0.22	0.28	0.28	0.28	0.28	0.90	1.06
Receiver Kit	Basic		PC-RLH11									
Receiver Rit	Advance	d	PC-ALHZ1									
Condensate	0.8-2.5 (H	HP class)	DUPI-131Q									
Drain Pump Kit	8.0-10.0	(HP class)	DUPI-15H2Q									
Air filtor	0.8-1.5 (H	HP class)	KW-PP7Q									

and indoor temperature are under the following conditions.

1.8-2.5 (HP class) KW-PP8Q

- Piping Length:7.5 metre Piping Lift:0 metre
- Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature:

- 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

Cooling Operation Conditions

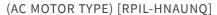
Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature: 19.0°C WB 35.0°C DB

Cooling & Heating

# DATA & ACCESSORIES GENERAL

# **GENERAL DATA & ACCESSORIES**

# LOW ESP TYPE (LOW 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 1Ф, [220-240V/	50Hz]					
Naminal Canasitu	Cooling	kW	2.2	2.8	3.6	4.3	5.0	5.6	6.3
Nominal Capacity	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)	m³/min	9/8/7	9/8/7	13/11/9	13/11/9	15/14/12	15/14/12	21/14/11
External Static Pres	sure (*3)	Pa	30	30	30	30	30	30	30
Connections			Flare-Nut Connect	ion (with Flare Nut	s)				
Refrigerant Piping	Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Ф9.52
Diameter	Gas Line	mm	Ф12.7	Ф12.7	Ф12.7	Ф12.7	Ф15.88	Ф15.88	Ф15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packi	ng Volume	m³	0.22	0.22	0.22	0.22	0.28	0.28	0.28

Model			RPIL-2.5HNAUNQ	RPIL-3.0HNAUNQ	RPIL-3.3HNAUI	NQ RPIL-4.0HNA	UNQ RPIL-5.0HNAUNG	RPIL-6.0HNAUNQ
Indoor Unit Power	Supply		АС 1Ф, [220-240V/	50Hz]				
Naminal Canacity	Cooling	kW	7.1	8.4	9.0	11.2	14.2	16.0
Nominal Capacity	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	300×1,175×80	00 300×1,475×800	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)	m³/min	21/14/11	29/25/21	29/25/21	29/25/21	36/31/26	42/34/26
External Static Pres	ssure (*3)	Pa	30	60	60	60	60	60
Connections			Flare-Nut Connect	tion (with Flare Nut	s)			
Refrigerant Piping	Liquid Line	mm	Ф9.52	Ф9.52	Ф9.52	Ф9.52	Ф9.52	Φ9.52
Diameter	Gas Line	mm	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packi	ng Volume	m³	0.28	0.40	0.40	0.40	0.49	0.49
Receiver Kit	Basic		PC-RLH11				0.8-1.5 (HP class)	KW-PP7Q
Receiver All	Advance	ed	PC-ALHZ1		Air filte	-	1.8-2.5 (HP class)	KW-PP8Q
Condensate	0.8-2.5 (	(HP class)	DUPI-131Q		Air iitte	ī	3.0-4.0 (HP class)	KW-PP9Q
Drain Pump Kit	3.0-6.0 (	(HP class)	DUPI-361Q				5.0-6.0 (HP class)	KW-PP10Q

NOTE:

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

1. Occasion Conditions

Heating Operation Conditions

Indoor Air Inlet Temperature: 27.0°C DB

Outdoor Air Inlet Temperature: 35.0°C DB Piping Length: 7.5 metre Piping Lift: 0 metre

Heating Operation Conditions
Indoor Air Inlet Temperature: 20.0°C DB

Outdoor Air Inlet Temperature: 7.0°C DB 6.0°C WB Piping Length: 7.5 metre Piping Lift: 0 metre

2. The sound pressure level is based on following conditions. 1.4 metre

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

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

# (DC MOTOR TYPE) [RPIZ-HNDTSQ]



Model			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		АС 1Ф, [220-240	V/50Hz] [220V/60	)Hz]					
Naminal Canasitu	Cooling	kW	2.2	2.8	3.6	4.0	5.0	5.6	6.3	7.1
Nominal Capacity	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	37/36/33/ 30/28/25	37/36/33/ 30/28/25
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)	m³/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	14.5/13.2/11.8/ 10.5/9.2/8.0	14.5/13.2/11.8/ 10.5/9.2/8.0	16.5/15/13/ 12/10/9	16.5/15/13/ 12/10/9
External Static Pres	ssure (*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 Conn	ection (with Flare	e Nuts)					
Refrigerant Piping	Liquid Line	mm	Φ6.35	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф9.52	Φ9.52
Diameter	Gas Line	mm	Ф12.70	Ф12.70	Ф12.70	Ф12.70	Ф15.88	Ф15.88	Ф15.88	Ф15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packi	ng Volume	m³	0.142	0.142	0.142	0.15	0.18	0.18	0.18	0.18
Dannis on Vit	Basic		PC-RLH11							
Receiver Kit	Advan	ced	PC-ALHZ1							
Condensate Drain	Pump Kit		- (included as s	tandard equipme	ent)					
Air filter	0.8-1.5	(HP Class)	KW-PP5Q							
All litter	1.8-2.5	(HP Class)	KW-PP6Q							

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

Indoor Air Inlet Temperature: 27.0°C DB 19.0°C WB
Outdoor Air Inlet Temperature: 35.0°C DB Piping Length:7.5 metre Piping Lift:0 metre

Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature:

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

### COMPACT TYPE

# (AC MOTOR TYPE) [RPIZ-HNATNQ]



Model			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		АС 1Ф, [220-240	)V/50Hz]						
Naminal Caracita	Cooling	kW	2.2	2.8	3.6	4.0	5.0	5.6	6.3	7.1
Nominal Capacity	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							
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m³/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 Pres	sure (*3)	Pa	10(30)	10(30)	10(30)	10(30)	10(30)	10(30)	10(30)	10(30)
Connections			Flare-Nut Conn	ection (with Flar	e Nuts)					
Refrigerant Piping	Liquid Line	mm	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф9.52	Φ9.52
Diameter	Gas Line	mm	Ф12.70	Ф12.70	Ф12.70	Ф12.70	Ф15.88	Ф15.88	Ф15.88	Ф15.88
Condensate Drain			VP25							
Approximate Packi	ng Volume	m <sup>3</sup>	0.142	0.142	0.142	0.15	0.18	0.18	0.18	0.18
Receiver Kit	Basic		PC-RLH11							
Receiver Kit	Advanc	ed	PC-ALHZ1							
Condensate Drain I	Pump Kit		- (included as s	tandard equipme	ent)					
Air filter	0.8-1.5	(HP Class)	KW-PP5Q							
Air iiller	1.8-2.5	(HP Class)	KW-PP6Q							

### NOTES:

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 19.0°C WB
Outdoor Air Inlet Temperature: 35.0°C DB

Piping Length:7.5 metre Piping Lift:0 metre

Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature:

- 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 sound pressure in the folder.
- 3. The data for external pressure (\*3) indicates "Standard Pressure Setting values when a filter is

# **GENERAL DATA & ACCESSORIES**

# LARGER AIR VOLUME TYPE

(AC MOTOR TYPE) [RPI-FSN2SQ]



Model		RPI-3.0FSN2SQ	RPI-4.0FSN2SQ	RPI-5.0FSN2SQ	RPI-6.0FSN2SQ	RPI-7.0FSN2SQ	
Indoor Unit Power Supply			AC 1 Φ, [220-240V/50Hz]	AC 1Ф, [240V/50Hz]			
Nominal Cooling Capacity kW		8.0	11.2	14.0	16.0	18.0	
Nominal Heating C	apacity	kW	9.0	12.5	16.0	18.0	20.0
Sound Pressure Level	High Pressure Setting	dB(A)	46/44/40	48/45/41	49/46/43	53/49/45	51/47/42
(Overall A Scale) (Hi/Me/Lo)	Standard Pressure Setting	dB(A)	45/43/39	47/44/40	48/45/42	52/48/44	-
Outer Dimensions	H×W×D	mm	350×1,076×800	350×1,076×800	350×1,300×800	350×1,300×800	440×1,430×550
Net Weight		kg	52	57	61	63	75
Refrigerant			R410A	R410A	R410A	R410A	R410A
Indoor Fan	High Pressure Setting	m³/min (l/s)	29/26/20 (483/433/333)	36/33/25 (600/550/417)	47/43/34 (783/717/567)	56/50/40 (933/833/667)	65/57/46 (1,083/950/767)
Air Flow Rate (Hi/Me/Lo)	Standard Pressure Setting	m³/min (l/s)	29/26/20 (483/433/333)	36/29/25 (600/483/417)	47/39/36 (783/650/600)	56/48/42 (933/800/700)	-
External Pressure (	*1)	Pa	120 (70)	120 (70)	120 (70)	120 (70)	140
Motor Output		W	250	300	420	550	650
Connections			Flare-Nut Connection (wi	th Flare Nuts)			
	Liquid Line	mm	Ф9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Refrigerant Piping	Gas Line	mm	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88
	Condensate Drain		VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement m <sup>3</sup>			0.49	0.49	0.57	0.57	0.54
Receiver kit	Basic		PC-RLH11				
receiver Kit	Advanced		PC-ALHZ1				

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

Heating Operation Conditions Indoor Air Inlet Temperature: 20.0°C DB Outdoor Air Inlet Temperature: 7.0°C DB

Piping Length: 7.5 metre Piping Lift: 0 metre

Indoor Air Inlet Temperature: 27.0°C DB

Outdoor Air Inlet Temperature: 35.0°C DB 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. 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 or 2dB(A). The data in the table above was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

The data for external pressure (\*1) indicates "High Pressure Setting (Standard Pressure Setting)" values when a filter is not used. The sound pressure level is based on the Standard Pressure Setting.











F-160L-K

B-160H3

1.0-2.5 (HP Class) F-71L-D1

3.0-6.0 (HP Class) F-160L-D1

Model			RCI-1.0FSRP	RCI-1.5FSRP	RCI-2.0FSRP	RCI-2.5FSRP	RCI-3.0FSRP	RCI-4.0FSF	RP RCI-5.0FSRP	RCI-6.0FSRP		
Indoor Unit Powe	r Supply		АС 1Ф, [220-24	0V/50Hz] [220V/6	0Hz]							
Nominal	Cooling	kW	2.8	4.0	5.6	7.1	8.0	11.2	14.0	16.0		
Capacity	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	248×840×840	248×840×840	248×840×840	248×840×840	298×840×840	298×840×	840 298×840×840	298×840×840		
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)	m³/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 Conr	nection (with flare	e Nuts)							
Refrigerant	Liquid Line	mm	Ф6.35	Ф6.35	Ф6.35	Ф9.52	Ф9.52	Ф9.52	Ф9.52	Ф9.52		
Piping Diameter	Gas Line	mm	Ф12.7	Ф12.7	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88		
Condensate Drain	1		VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25		
Approximate Pacl	king Volume	m <sup>3</sup>	0.21	0.21	0.21	0.21	0.25	0.25	0.25	0.25		
		Twin-Sense panel		P-AP160NAE2			3-Way Outlet Parts Set			PI-160LS2		
Decoration panel	otarraara	Standard (without sensor)		P-AP160NA3			T-Pipe Connection Kit			TKCI-160K		
	sensor)						Antihactorial Long Life					

Antibacterial Long Life

Air Filter

Receiver kit

Duct Adapter

Fresh Air Intake Kit

Condensate Drain Pump Kit

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

Heating Operation Conditions Indoor Air Inlet Temperature: Cooling Operation Conditions Indoor Air Inlet Temperature:

PC-ALH3

PD-75A

- (Standard)

OACI-160K3

20.0°C DB 7.0°C DB 6.0°C WB 27.0°C DB 19.0°C WB Outdoor Air Inlet Temperature:

Outdoor Air Inlet Temperature: Piping Length:7.5 metre Piping Lift:0 metre

# 4-WAY CASSETTE TYPE

(DC MOTOR TYPE) [RCI-FSKDNQ]

Advanced



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	Cooling	kW	2.8	4.0	5.6	7.1	8.0	11.2	14.0	16.0	
Capacity	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)	m³/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	Liquid Line	mm	Ф6.35	Φ6.35	Ф6.35	Φ9.52	Φ9.52	Ф9.52	Φ9.52	Ф9.52	
Piping Diameter	Gas Line	mm	Ф12.7	Ф12.7	Ф12.7	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25	
Approximate Packing Volume m³		m³	0.21	0.21	0.21	0.21	0.25	0.25	0.25	0.25	

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

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:

19.0°C WB (66.2°F WB) 35.0°C DB (95.0°F DB)

27.0°C DB (80.0°F DB)

Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature:

20.0°C DB (68.0°F DB) 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.

3. Decoration panel is included.

Piping Length: 7.5 metre
Piping Lift: 0 metre

Outdoor Air Inlet Temperature:

<sup>2.</sup> 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.

# GENERAL DATA & ACCESSORIES

### **GENERAL DATA & ACCESSORIES**

### Silent-Iconic<sup>™</sup> for 4-WAY CASSETTE (RCI-FSRP)







Model	P-GP160NAP	P-GP160NAPU	Custom Order
satandard/option	Design Panel Standard	Design Panel with an Elevation Grille	Design Panel Standard
color	Natural White	Natural White	Black

# 4-WAY CASSETTE COMPACT TYPE (NEW)





Model			RCIM-0.6FSRE	RCIM-0.8FSRE	RCIM-1.0FSRE	RCIM-1.5FSRE	RCIM-2.0FSRE	RCIM-2.5FSRE		
Indoor Unit Powe	r Supply		AC 1Φ, [230V/50Hz] [220-240V/50Hz] [220V/60Hz]							
Nominal	Cooling	kW	1.6	2.2	2.8	4.0	5.6	7.1		
Capacity	Heating	kW	1.9	2.5	3.2	4.8	6.3	8.5		
Sound Pressure Level	(Hi2/Hi/Me/Lo)	dB(A)	34/30/28/24.5	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	285×570×570		
Net Weight		kg	16	16	16	16	17	17		
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A		
Indoor Fan Air Flow Rate	(Hi2/Hi/Me/Lo)	m³/min	10/8.5/7.5/6	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 Connect	ion (with Flare Nuts)						
Refrigerant	Liquid Line	mm	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф9.52		
	Gas Line	mm	Ф12.7	Ф12.7	Ф12.7	Ф12.7	Ф12.7	Ф15.88		
Condensate Drain	ı		VP25	VP25	VP25	VP25	VP25	VP25		
Approximate Pack	king Volume	m <sup>3</sup>	0.13	0.13	0.13	0.13	0.13	0.13		

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

NOTES:

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

Heating Operation Conditions Indoor Air Inlet Temperature: Cooling Operation Conditions 27.0°C DB 19.0°C WB 35.0°C DB 20.0°C DB 7.0°C DB 6.0°C WB Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature: Outdoor Air Inlet Temperature:

Piping Length:7.5 metre Piping Lift:0 metre 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.

3. RCIM-0.6FSRE cannot be connected to HNRQ series. Please refer to the technical catalogue for the details.

2-WAY CASSETTE TYPE

TYPE\ [PCD-FSR]



Model			RCD-0.8FSR	RCD-1.0FSR	RCD-1.5FSR	RCD-2.0FSR	RCD-2.5FSR	RCD-3.0FSR	RCD-4.0FSR	RCD-5.0FSR	RCD-6.0FSR
Indoor Unit Powe	r Supply		АС 1Ф, [220-24	40V/50Hz] [220\	//60Hz]						
Nominal	Cooling	kW	2.2	2.8	4.0	5.6	7.1	8.0	11.2	14.0	16.0
Capacity	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)	m³/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 Con	nection (with F	lare Nuts)						
Refrigerant	Liquid Line	mm	Ф6.35	Ф6.35	Φ6.35	Ф6.35	Φ9.52	Ф9.52	Ф9.52	Ф9.52	Ф9.52
Piping Diameter	Gas Line	mm	Ф12.7	Ф12.7	Ф12.7	Ф12.7	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88
Condensate Drain			VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Pack	king Volume	m³	0.24	0.24	0.24	0.24	0.24	0.24	0.36	0.36	0.36
			D ADOODNIA			Described and a section			DD 150D		

Description name!	0.8-3.0 (HP Class)	P-AP90DNA	Duct Adapter		PD-150D
Decoration panel	4.0-6.0 (HP Class)	P-AP160DNA	Antibacterial	0.8-3.0 (HP Class)	F-90MD-K1
Receiver kit	Advanced	PC-ALHD1	Long-life Filter	4.0-6.0 (HP Class)	F-160MD-K1
Motion Sensor SOR-NED		SOR-NED	Files Dev	0.8-3.0 (HP Class)	B-90HD
Condensate Drain Pump I	Kit	- (Standard)	Filter Box	4.0-6.0 (HP Class)	B-160HD

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

Indoor Air Inlet Temperature:

20.0°C DB

20.0°C DB 7.0°C DB 6.0°C WB 19.0°C WB Outdoor Air Inlet Temperature: Outdoor Air Inlet Temperature Piping Length:7.5 metre Piping Lift:0 metre Piping Length:7.5 metre Piping Lift:0 metre

### 1-WAY CASSETTE TYPE







Model			RCS-0.8FSR	RCS-1.0FSR	RCS-1.5FSR	RCS-2.0FSR	RCS-2.5FSR	RCS-3.0FSR
Indoor Unit Powe	r Supply		АС 1Ф, [220-240V/5	0Hz] [230V/50Hz] [220	V/60Hz]			
Nominal	Cooling	kW	2.2	2.8	4.0	5.6	7.1	8.0
Capacity	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)	m³/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 Connect	ion (with Flare Nuts)				
Refrigerant	Liquid Line	mm	Φ6.35	Ф6.35	Ф6.35	Ф6.35	Ф9.52	Φ9.52
Piping Diameter	Gas Line	mm	Ф12.7	Ф12.7	Ф12.7	Ф12.7	Ф15.88	Ф15.88
Condensate Drain	1		VP25	VP25	VP25	VP25	VP25	VP25
Approximate Pack	king Volume	m³	0.25	0.25	0.25	0.25	0.32	0.32

	0.8-1.0 (HP Class)	P-AP36CNA	Duct Adapter		PD-100
· -	1.5-2.0 (HP Class)	P-AP56CNA	Drille for	0.8-2.0 (HP Class)	DG-56SW1
	2.5-3.0 (HP Class)	P-AP80CNA	Front Discharge	2.5-3.0 (HP Class)	DG-80SW1
Receiver kit	Advanced	PC-ALHS1	A:- O H-+ Cl+ Dl-+-	0.8-2.0 (HP Class)	PIS-56LS
Motion Sensor		SOR-NES	Air Outlet Shutter Plate	2.5-3.0 (HP Class)	PIS-80LS
Condensate Drain Pump Kit		- (Standard)			

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

20.0°C DB 7.0°C DB 6.0°C WB Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature: Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature: Piping Length:7.5 metre Piping Lift:0 metre 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.

<sup>2.</sup> 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.

# GENERAL DATA & ACCESSORIES

## **GENERAL DATA & ACCESSORIES**

### WALL MOUNTED TYPE

(DC MOTOR TYPE) [RPK-FSRM, RPK-FSRHM]



Expansion Valvo built in type



туре			Expansion valv	e buitt-in type									
Model			RPK-0.6FSRM	RPK-0.8FSRM	RPK-1.0FSRM	RPK-1.5FSRM	RPK-2.0FSRM	RPK-2.5FSRM	RPK-3.0FSRM	RPK-4.0FSRM			
Indoor Unit Power	Supply		АС 1Ф, [220-240	AC 1Φ, [220-240V/50Hz] [220V/60Hz]									
Naminal Canasitus	Cooling	kW	1.7	2.2	2.8	4.0	5.6	7.1	8.0	11.2			
Nominal Capacity	Heating	kW	1.9	2.5	3.2	4.8	6.3	8.5	9.0	12.5			
Sound Pressure Level	(Hi2/Hi/Me/Lo)	dB(A)	35/32/31/29	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			
Color			White										
Outer Dimension	(H×W×D)	mm	300×790×230	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			
Net Weight		kg	10	10	10	11	14.5	15	15	15			
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A			
Indoor Fan Air Flow Rate	(Hi2/Hi/Me/Lo)	m³/min	8/7.5/7/6	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			
Motor			38	38	38	38	38	38	38	38			
Connections			Flare-Nut Conn	ection (with Flar	e Nuts)								
Refrigerant Piping	Liquid Line	mm	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Φ9.52	Φ9.52	Φ9.52			
Diameter	Gas Line	mm	Ф12.7	Ф12.7	Ф12.7	Ф12.7	Ф12.7	Ф15.88	Ф15.88	Ф15.88			
Condensate Drain			VP16	VP16	VP16	VP16	VP16	VP16	VP16	VP16			
Approximate Packi	ng Volume	m³	0.09	0.09	0.09	0.11	0.14	0.14	0.14	0.14			
Accessory included	1		Wall Mounting	Bracket									

Туре			External Expans	ion Valve type					
Model			RPK-0.6FSRHM	RPK-0.8FSRHM	RPK-1.0FSRHM	RPK-1.5FSRHM			
Indoor Unit Power	Supply		AC 1Φ, [220-240V/50Hz] [220V/60Hz]						
Nominal Capacity	Cooling	kW	1.7	2.2	2.8	4.0			
Normal Capacity	Heating	kW	1.9	2.5	3.2	4.8			
Sound Pressure Level	(Hi2/Hi/Me/Lo)	dB(A)	35/32/31/29	39/35/32/30	39/35/32/30	46/40/36/33			
Color			White						
Outer Dimension	(H×W×D)	mm	300×790×230	300×790×230	300×790×230	300×900×230			
Net Weight		kg	10	10	10	11			
Refrigerant			R410A	R410A	R410A	R410A			
Indoor Fan Air Flow Rate	(Hi2/Hi/Me/Lo)	m³/min	8/7.5/7/6	10/8/7/6.5	10/8/7/6.5	14/11/9/7.5			
Motor			38	38	38	38			
Connections			Flare-Nut Conne	ection (with Flare	Nuts)				
Refrigerant Piping	Liquid Line	mm	Ф6.35	Ф6.35	Ф6.35	Ф6.35			
Diameter	Gas Line	mm	Ф12.7	Ф12.7	Ф12.7	Ф12.7			
Condensate Drain			VP16	VP16	VP16	VP16			
Approximate Packi	ng Volume	m <sup>3</sup>	0.09	0.09	0.09	0.11			
Accessory included	1		Wall Mounting Bracket						

		lan uuri
Receiver kit	Advanced	PC-ALHZ1
	FSRM: 0.6-2.0 (HP Class)	MSF-NP63A1
Strainer kit	FSRM: 2.5-4.0 (HP Class)	MSF-NP112A1
	FSRHM: 0.6-1.5 (HP Class)	MSF-NP36AH1
External Expansion Valve Kit	FSRHM	EV-1.5N1

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 Indoor Air Inlet Temperature: 20.0°C I

Outdoor Air Inlet Temperature: 35.0°C DB Piping Length: 7.5 metre
Piping Lift: 0 metre

Outdoor Air Inlet Temperature:

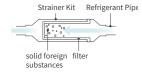
7.0°C DB 6.0°C WB Piping Length: 7.5 metre Piping Lift: 0 metre

20.0°C DB

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.

### 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-

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

### WALL MOUNTED TYPE

(AC MOTOR TYPE) [RPK-FSNQS]

Discontinued in 2021

Please consult your distributor for more detail



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		АС 1Ф, [220-240V	/50Hz]						
Naminal Caracita	Cooling	kW	2.2	2.8	3.6	4.0	5.0	5.6	6.3	
Nominal Capacity	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)	m³/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 Connec	ction (with Flare Nu	ts)					
Refrigerant Piping	Liquid Line	mm	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф6.35	Ф6.35	
Diameter	Gas Line	mm	Ф12.7	Ф12.7	Ф12.7	Ф12.7	Ф15.88	Ф15.88	Ф15.88	
Condensate Drain			VP16	VP16	VP16	VP16	VP16	VP16	VP16	
Approximate Packi	ng Volume	m <sup>3</sup>	0.12	0.12	0.12	0.12	0.15	0.15	0.15	
Donois son leit	Basic		PC-RLH11							
Receiver kit	Advanced		PC-ALHZ1							
Strainer kit			MSF-NP63A1							

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 27.0°C DB (80.0°F DB) Indoor Air Inlet Temperature: Indoor Air Inlet Temperature:

19.0°C WB (66.2°F WB) 35.0°C DB (95.0°F DB) Outdoor Air Inlet Temperature: Piping Length:7.5 metre
Piping Lift:0 metre

Outdoor Air Inlet Temperature: Piping Length:7.5 metre

20.0°C DB (68.0°F DB)

6.0°C WB (43.0°F WB)

20.0°C DB

7.0°C DB

6.0°C WB

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.

### FLOOR/CEILING CONVERTIBLE TYPE

(AC MOTOR TYPE) [RPFC-FSNQ]



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 Powe	r Supply		АС 1Ф, [220-240	V/50Hz] [220V/60	Hz]					
Nominal	Cooling	kW	5.0	5.6	6.3	7.1	8.4	9.0	11.2	14.2
Capacity	Heating	kW	5.6	6.5	7.5	8.5	9.6	10.0	13.0	16.3
Sound Pressure	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
Level	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)	m³/h	780/660/540	780/660/540	966/840/678	966/840/678	1,092/912/732	1,164/978/798	1,488/1,230/978	1,980/1,680/1,380
Connections			Flare-Nut Conn	ection (with Flare	Nuts)					
Refrigerant	Liquid Line	mm	Ф6.35	Ф6.35	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Ф9.52	Ф9.52
Piping Diameter	Gas Line	mm	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88
Condensate Drain	1		VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Pack	king Volume	m <sup>3</sup>	0.31	0.31	0.31	0.31	0.40	0.40	0.40	0.48
Receiver kit	Basic		PC-RLH11							
Neceivei KIL	Advance	d	PC-ALHZ1							

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

35.0°C DB

Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature:

Outdoor Air Inlet Temperature: Piping Length: 7.5 metre Piping Lift: 0 metre Piping Length: 7.5 metre Piping Lift: 0 metre

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

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.

# GENERAL DATA & ACCESSORIES

### **GENERAL DATA & ACCESSORIES**

# CEILING SUSPENDED TYPE (NEW)

(DC MOTOR TYPE) [RPC-FSR]



Model				RPC-1.5FSR	RPC-2.0FSR	RPC-2.5FSR	RPC-3.0FSR	RPC-4.0FSR	RPC-5.0FSR	RPC-6.0FSR
Indoor Unit Powe	r Supply			АС 1Ф, [220-240\	//50Hz] [220V/60Hz]					
Nominal	Cooling	5	kW	4.0	5.6	7.1	8.0	11.2	14.0	16.0
Capacity	Heatin	g	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)	m³/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 Conne	ction (with Flare Nu	ts)				
Refrigerant	Liquid	Line	mm	Φ6.35	Φ6.35	Φ9.52	Φ9.52	Ф9.52	Φ9.52	Ф9.52
Piping Diameter	Gas Lin	ie	mm	Ф12.7	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88
Condensate Drain	1			VP20	VP20	VP20	VP20	VP20	VP20	VP20
Approximate Pack	king Volu	ime	m³	0.23	0.23	0.31	0.31	0.38	0.38	0.38
Receiver kit		Advanced		PC-ALHP1						
Motion Sensor				SOR-NEP						
	_	1.5 (HP Cl	ass)	DUPC-63K1						
Condensate Drain Kit	Pump	2.0 (HP Cl	lass)	DUPC-71K1						
M		2.5-6.0 (H	P Class)	DUPC-160K1						

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 Indoor Air Inlet Temperature: 27.0°C DB Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature:

Outdoor Air Inlet Temperature: Piping Length: 7.5 metre
Piping Lift: 0 metre 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

### FLOOR EXPOSED TYPE

(AC MOTOR TYPE) [RPF-FSN2E]



Model			RPF-1.0FSN2E	RPF-1.5FSN2E	RPF-2.0FSN2E	RPF-2.5FSN2E
I d I I it D	- C l	Current	AC 1 Phase			
Indoor Unit Powe	r Supply		[220-240V/50Hz] [220V/6	0Hz]		
Nominal	Cooling	kW	2.8	4.0	5.6	7.1
Capacity	Heating	kW	3.2	4.8	6.3	8.5
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	35/32/29	38/35/31	39/36/32	42/38/34
Color			Spring White			
Outer Dimension	(H×W×D)	mm	630×1,045×220	630×1,170×220	630×1,420×220	630×1,420×220
Net Weight		kg	25	28	33	34
Refrigerant			R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m³/min	8.5/7/6	12/10/09	16/14/11	16/14/11
Motor		W	20	28	45	45
Connections			Flare-Nut Connection (v	vith Flare Nuts)		
Refrigerant	Liquid Line	mm	Φ6.35	Ф6.35	Ф6.35	Ф9.52
Piping	Gas Line	mm	Ф12.70	Ф12.70	Ф15.88	Ф15.88
Condensate Drair	1		Φ18.5 OD	Ф18.5 OD	Ф18.5 OD	Ф18.5 OD
Packaging Volum	e	m <sup>3</sup>	0.22	0.24	0.29	0.29
Receiver kit	Advance	ed	PC-ALHZ1			

### 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 Indoor Air Inlet Temperature: 19.0°C WB 35.0°C DB Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature

Piping Length: 7.5 metre Piping Lift: 0 metre

Outdoor Air Inlet Temperature:

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.

Voltage of the power source for the indoor fan motor is 220V.
The above data was measured in an anechoic chamber.

### FLOOR CONCEALED TYPE

(AC MOTOR TYPE) [RPFI-FSN2E]



Model			RPFI-1.0FSN2E	RPFI-1.5FSN2E	RPFI-2.0FSN2E	RPFI-2.5FSN2E
Indeed In the Danie	- C	Current	AC 1 Phase			
Indoor Unit Powe	r Supply		[220-240V/50Hz] [220V/60Hz]			
Nominal	Cooling	kW	2.8	4.0	5.6	7.1
Capacity	Heating	kW	3.2	4.8	6.3	8.5
Sound Pressure Level	(Hi/Me/Lo)	dB(A)	35/32/29	38/35/31	39/36/32	42/38/34
Outer Dimension	(H×W×D)	mm	620×848×220	620×973×220	620×1,223×220	620×1,223×220
Net Weight		kg	19	23	27	28
Refrigerant			R410A	R410A	R410A	R410A
Indoor Fan Air Flow Rate	(Hi/Me/Lo)	m³/min	8.5/7/6	12/10/09	16/14/11	16/14/11
Motor		W	20	28	45	45
Connections			Flare-Nut Connection (with Flar	e Nuts)		
Refrigerant	Liquid Line	mm	Ф6.35	Ф6.35	Ф6.35	Ф9.52
Piping	Gas Line	mm	Ф12.70	Ф12.70	Ф15.88	Ф15.88
Condensate Drain	1		VP25	VP25	VP25	VP25
Packaging Volume	е	m <sup>3</sup>	0.22	0.23	0.25	0.25
Receiver kit	Advanced	I	PC-ALHZ1			

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 19.0°C WB 35.0°C DB Heating Operation Conditions Indoor Air Inlet Temperature: 7.0°C DB 6.0°C WB Outdoor Air Inlet Temperature:

Piping Length: 7.5 metre Piping Lift: 0 metre

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 floor level.

Voltage of the power source for the indoor fan motor is 220V.
The above data was measured in an anechoic chamber.

### FLOOR CONCEALED TYPE

(AC MOTOR TYPE) [RPFI-FSNQ]



Model			RPFI-1.0FSNQ	RPFI-1.5FSNQ	RPFI-2.0FSNQ	RPFI-2.5FSNQ
Indoor Unit Powe	r Supply		AC 1Ф, [220-240V/50Hz]			
Nominal	Cooling	kW	2.8	4.3	5.6	7.1
Capacity	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)	m³/min	8.5/7/6	12/8/7	16/12.5/10.5	16/14/11
Connections			Flare-Nut Connection (	with Flare Nuts)		
Refrigerant	Liquid Line	mm	Ф6.35	Ф6.35	Ф6.35	Ф9.52
Piping	Gas Line	mm	Ф12.70	Ф12.70	Ф15.88	Ф15.88
Condensate Drair	1		VP25	VP25	VP25	VP25
Packaging Volum	е	m³	0.19	0.19	0.23	0.23
Danish and Life	Basic		PC-RLH11			
Receiver kit	Advanc	ed	PC-ALHZ1			

20.0°C DB

6.0°C WB

NOTES:

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

Cooling Operation Conditions Indoor Air Inlet Temperature: 27.0°C DB Outdoor Air Inlet Temperature: Piping Length: 7.5 metre
Piping Lift: 0 metre

35.0°C DB

Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature:

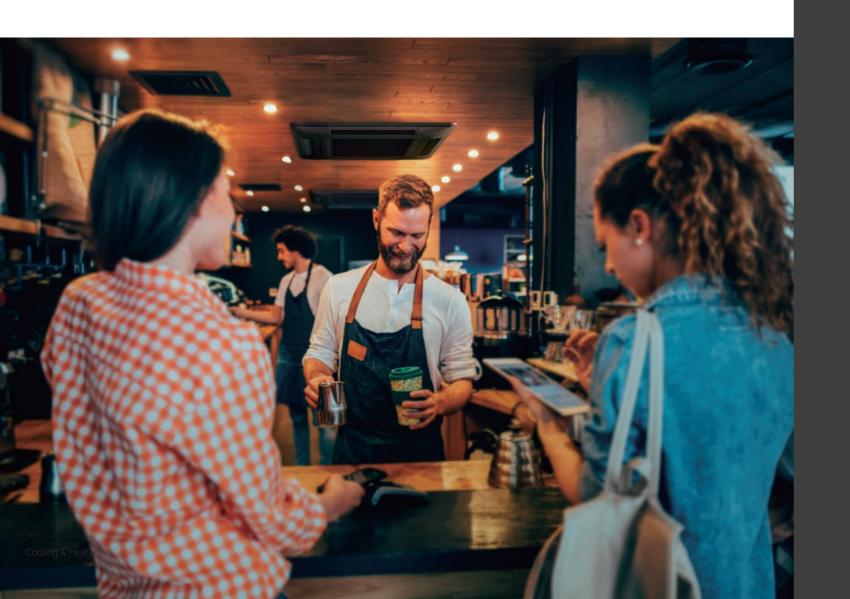
Piping Length: 7.5 metre Piping Lift: 0 metre

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

1.0 metre from the unit. 1.0 metre from floor level. Voltage of the power source for the indoor fan motor is 220V. The above data was measured in an anechoic chamber.

# Ventilations

78	OUR LINE-UP
79	VENTILATIONS
79	ALL FRESH AIR UNIT
80	TOTAL HEAT EXCHANGER
81	DX-KIT





### **RENEW AIR**

Today, the average person spends more than 75% of their day indoors; at home, at work, in the gym, shopping or socializing. Many of these environments are effectively sealed and fresh air isn't easily available

Without proper ventilation, CO2 levels rise, pollutants circulate and potentially harmful bacterias build-up, impacting on the wellbeing, comfort and productivity of occupants.

Make these spaces as healthy and comfortable as possible by providing fresh air with our premium air renewal systems for commercial buildings

### OUR LINE-UP

Our line-up fulfils the ventilation requirements of the desired space by drawing in clean air from the outside and replenishing indoor spaces. It features solutions that suit every type of building; You can use the ventilation technology as it is or it can be incorporated design of your system to meet your needs.





COMPARISON	Fan Air Flow Rate (m³/h)	165	250	350	500	670	800	870	1,000	1,080	1,680	2,100	3,000	4,020	4,980	6,000
	ALL FRESH AIR UNIT									•	•	•	•	•	•	•
	TOTAL HEAT EXCHANGER	•	•	•	•	•	•	•	•							

### EXTRA OFFERING OF AIR-RENEWAL SOLUTION

we have two additional offering to meet your needs and building demand to renew the

One is DX-Kit, Air Handling Unit Integration to

The other is Fresh-Air Intake port accessory for the indoor units.



fresh-air intake port



2-way cassette type, 1-way cassette type

·Optional parts which enables fresh air into the unit so that it can be blown out with conditioned air

# **VENTILATIONS**

# ALL FRESH AIR UNIT



Model			RPI-5.0KFNQ		RPI-8.0KFNQ		RPI-10.0KFN(	Q	RPI-12.0KFN(	2
Power Suppl	У		AC 1Φ 220-240V/ 50Hz	AC 1Φ 220V/ 60Hz	AC 1Φ 220-240V/ 50Hz	АС 1Ф 220V/ 60Hz	AC 1Φ 220-240V/ 50Hz	AC 1Φ 220V/ 60Hz	АС 3Ф 380-415V/ 50Hz	АС 3Ф 380V/ 60Hz
Connectable	Outdoor Unit		SET FREE Σ He	eat Pump Type FS	NS/FSNP Series				RAS-12FSNS/	P
	Capacity	kW	14.0	14.0	22.4	22.4	28.0	28.0	33.5	33.5
Cooling	Power	kW	0.30	0.35	0.48	0.55	0.50	0.58	0.68	0.78
	Nominal Current	Α	1.4	1.61	2.2	2.53	2.3	2.65	1.43	1.64
	Capacity	kW	13.7	13.7	21.9	21.9	24.5	24.5	26.8	26.8
Heating	Power	kW	0.30	0.35	0.48	0.55	0.50	0.58	0.68	0.78
	Nominal Current	Α	1.4	1.61	2.2	2.53	2.3	2.65	1.43	1.64
Sound Pressi (overall a sca		dB(A)	42	42	44	44	47	47	56	56
Dimensions	H×W×D	mm	370×1320×800	)	486×1270×10	69	486×1270×10	69	486×1270×10	69
Net Weight		kg	63	63	110	110	110	110	110	110
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Air Flow Rate		m³/min	18	18	28	28	35	35	50	50
External Pres	sure	Pa	200	200	220	220	220	220	220	220
	Liquid	mm	Ф9.53	Ф9.53	Ф9.53	Ф9.53	Ф9.53	Ф9.53	Ф12.7	Ф12.7
Piping	Gas	mm	Ф15.88	Ф15.88	Ф19.05	Ф19.05	Ф22.2	Ф22.2	Ф25.4	Ф25.4
	Condensate Drain		VP25, Outer D	iameter: Φ32mm						
Гетрегаture	range of fresh air dra	awn	Cooling: 20.0°	C~43.0°C, Heating	: -7.0°C~15.0°C					

Model			RPI-16.0KI	NQL	RPI-16.0KI	FNQH	RPI-20.0KI	FNQL	RPI-20.0KI	NQH	RPI-20.0KI	FNQLF	RPI-20.0KI	FNQHF
Power Suppl	у		АС 3Ф 380-415V/ 50Hz	АС 3Ф 380V/ 60Hz										
Connectable	Outdoor Unit		RAS-16FSI	NS/P	RAS-16FSI	NS/P	RAS-20FSI	NS/P	RAS-20FSN	NS/P	RAS-20FSI	NS/P	RAS-20FSI	NS/P
	Capacity	kW	45.0	45.0	45.0	45.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
Cooling	Power	kW	0.72	0.83	1.06	1.22	1.06	1.22	1.39	1.6	1.39	1.60	1.72	1.98
	Nominal Current	А	1.8	2.07	2.2	2.53	2.22	2.55	3.14	3.61	3.0	3.45	3.9	4.45
	Capacity	kW	36.0	36.0	36.0	36.0	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8
Heating	Power	kW	0.72	0.83	1.06	1.22	1.06	1.22	1.39	1.6	1.39	1.60	1.72	1.98
	Nominal Current	А	1.8	2.07	2.2	2.53	2.22	2.55	3.14	3.61	3.0	3.45	3.9	4.45
Sound Pressi (overall a sca		dB(A)	58	58	62	62	61	61	65	65	63	63	67	67
Dimensions	H×W×D	mm	635×1950>	·805	635×1950	×805	735×1950>	×805	735×1950>	·805	735×1950>	<805	735×1950>	<805
Net Weight		kg	196	196	196	196	222	222	222	222	222	222	222	222
Refrigerant			R410A	R410A										
Air Flow Rate		m³/min	67	67	67	67	83	83	83	83	100	100	100	100
External Pres	sure	Pa	200	200	300	300	200	200	300	300	200	200	300	300
	Liquid	mm	Ф12.7	Ф12.7	Ф12.7	Ф12.7	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88	Ф15.88
Piping	Gas	mm	Ф25.4	Ф25.4	Ф25.4	Ф25.4	Ф28.6	Ф28.6	Ф28.6	Ф28.6	Ф28.6	Ф28.6	Ф28.6	Ф28.6
	Condensate Drain		RC1 (Inter	nal Screw)										
Temperature	range of fresh air dra	awn	Cooling: 2	0.0°C~43.0°	C, Heating:	-7.0°C~15.0	)°C							

- NOTES:

  1. Cooling capacity and heating capacity test in the following conditions:

  Cooling conditions: 33.0°CDB, 28.0°CWB, pipeline length 7.5 metre, pipe height difference 0 metre

  Heating conditions: 0°CDB, -2.9°CWB, pipeline length 7.5 metre, pipe height difference 0 metre (heating is the data without defrosting)
- 2. Noise test conditions are as follows: At a distance of 1.5 metre from the unit surface
- The above parameters are measured in the anechoic chamber without reflected echo, therefore the impact of the reflected echo must be counted at the scene.
- 3. An air filter with dust removal efficiency of 50% or more needs to be installed at the air inlet.
- 4. When the field duct resistance is small and the fan speed is too high, the unit will appear the phenomena of abnormal shutdown, fault, water spray etc., and the duct pipe should be insulated to prevent appears to the field duct resistance is small and the fan speed is too high, the unit will appear the phenomena of abnormal shutdown, fault, water spray etc., and the duct pipe should be insulated to prevent appears to the field duct resistance is small and the fan speed is too high, the unit will appear the phenomena of abnormal shutdown, fault, water spray etc., and the duct pipe should be insulated to prevent appears to the field duct resistance is small and the fan speed is too high, the unit will appear the phenomena of abnormal shutdown, fault, water spray etc., and the duct pipe should be insulated to prevent appears to the field duct resistance is small and the fan speed is too high, the unit will appear the phenomena of abnormal shutdown, fault, water spray etc., and the duct pipe should be insulated to the field duct resistance in the field duct resistance is a speed of the field duct resistance in the field duct resistance in the field duct resistance is a speed of the field duct resistance in the field duct resistance in the field duct resistance is a speed of the field duct resistance in the field duct resistance
- 5. Air processor can only be used for processing fresh air, indoor air conditioning load processing need to use other air conditioners.
- 6. Fresh air processing unit should be connected with SET FREE Σ Heat Pump Type outdoor unit.

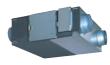
  When fresh air processing unit and other indoor units air all connected to the same SET-FREE outdoor unit, Its equivalent cooling capacity is calculated by the following criteria: Type\_SHP class: 21.0kW; 8HP class: 33.3kW; 10HP class: 42.0kW
- 7. Refer to capacity restrains shown on Table below for indoor unit capacity connectable to outdoor unit.

System	All Fresh Air Unit System (Only All Fresh Air Unit)	Mixed System (All Fresh Air Unit and Other Indoor Unit)
Range of Combination Capacity	80 to 100%	i) 80 to 100% and ii) Total Capacity of All Fresh Air: 30%

8. When outdoor temperature is below 20.0°C in cooling operation, the system will be automatically converted to ventilation operation.

When outdoor temperature is higher than 15.0°C in heating operation, it will be automatically converted to ventilation operation. When lower than -7.0°C, the fresh air processing unit will stop running.

### TOTAL HEAT EXCHANGER

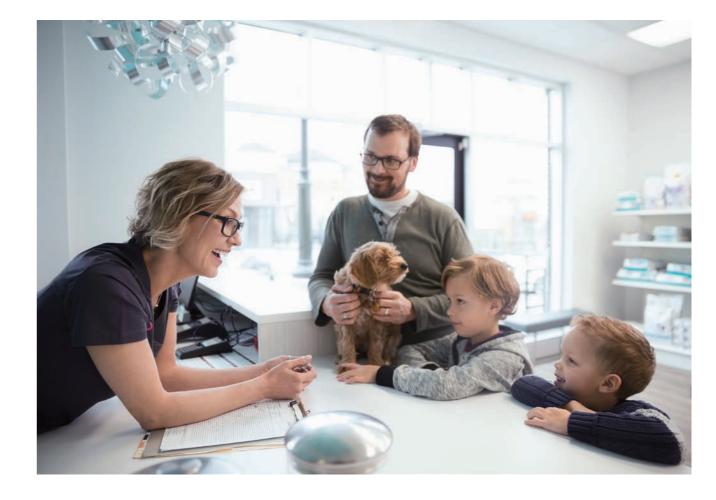


Model			KPI-2521	KPI-5021	KPI-8021	KPI-10021 (*1)
Unit Power Supp	ly		AC 1Φ, [220-240V/50Hz]			
Air Flow Rate	(Hi/Me/Lo)	m³/h	250/250/165	500/500/350	800/800/670	1,000/1,000/870
External Pressure	(Hi/Me/Lo)	Pa	65/40/20	150/60/30	140/100/70	160/100/80
Temp. Exchange Efficiency	(Hi/Me/Lo)	%	78/78/83	77/77/82	78/78/80.5	79/79/81
Enthalpy Exchange	For Heating (Hi/Me/Lo)	%	69/69/74	67/67/73	71/71/73	70/70/73
Efficiency	For Cooling (Hi/Me/Lo)	%	62.5/62.5/68	61.5/61.5/68	64.5/64.5/68	64.5/64.5/67
Sound Pressure Level (Over A Scale)	at 1.5m from the unit (under) (Hi/Me/Lo) (*2)(*4)	dB(A)	26.5-27.5/25-26/21-22	32.5-33.5/30-31/23.5-24.5	33.5-34.5/32-33/30-31	36-37/34-35/31.5-32.5
(Over A Scale)	at Air Outlet (Hi/Me/Lo) (*3)(*4)	dB(A)	33.5-34.5/32-33/26-27	40.5-41.5/38-39/29.5-30.5	44.5-45.5/43-44/40-41	47-48/45-46/41.5-42.5
	Height	mm	275	317	398	398
Outer Dimensions	Width	mm	735	1,016	1,004	1,231
DIIIICII310113	Depth	mm	780	888	1,164	1,164
Net Weight		kg	21	33	61	72
Connection Duct	Diameter	mm	Ф150	Ф200	Ф250	Ф250

- NOTES:
  (1): KPI-10021 has different units according to the applied power supply, 220-240V/50Hz.
  (\*2): The sound pressure level is based on following conditions.

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

- (\*3): The noise at the air outlets is the values at a 45° angle, 1.5 metre in front of the unit.
  (\*4): The sound pressure level is based on the total heat exchange mode.
  In case of the bypass ventilation mode, the sound pressure level increase by approximately 1 dB(A).

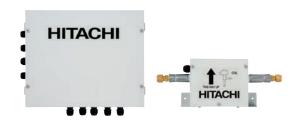


# DX-KIT

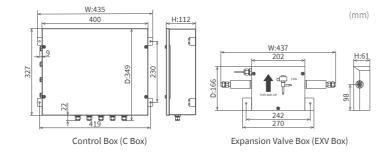
# Air Handling Unit Integration to Hitachi VRF



### **IMAGE**



### **DIMENSIONS**



### **SPECIFICATION**

HP class			2	4	6	8/10	12~20	22~30
Model			DXF-2.0A1	DXF-4.0A1	DXF-6.0A1	DXF-10.0A1	DXF-20.0A1	DXF-30.0A1
	Power Supply		АС1Ф, [220-240	V /50Hz] [220V 60Hz	z]			
	Height	mm	112	112	112	112	112	112
Control Box	Width	mm	435	435	435	435	435	435
(C Box)	Depth	mm	349	349	349	349	349	349
	Weight	kg	5.2	5.2	5.2	5.2	5.2	5.2
	Material		Steel Plate + W	hite Grey Coating				
	Height	mm	61	61	61	61	61	61
	Width	mm	437	437	437	437	437	437
	Depth	mm	166	166	166	166	166	166
Expansion Valve Box (EXV Box)	Weight	kg	1.7	1.7	1.7	1.7	1.7	1.7
(LAV DOX)	Quantity		1	1	1	1	1	2
	Material		Steel Plate + W	hite Grey Coating				
	Liquid Pipe Diameter		φ6.35	ф9.52	ф9.52	ф9.52	ф12.7	ф12.7
AHU Suction	Cooling		21.0°C to 32.0°	C (DB) / 15.0°C to 23	3.0°C (WB)			
Temperature Range	Heating		15.0°C to 27.0°C	C (DB)				
→ Total AHU or AHU & ODU capacity = X	ifferent configurations IDU Connection Ratio against Temperature Control")		• 1 ODU to 1 AH • 1 ODU to Mult • 1 ODU to AHU (1) 50% < X ≤ 1	iple AHUs : <u>50% &lt; X</u> & IDUs : <u>100%</u> → Total AHU ca	apacity: No limitation	n / Each AHU capacit		between 2-6HP class
Maximum	Total	m				the system is the sar		
Piping Length	Between AHU Heat Exchanger and EXV Box	m	5	5	5	5	5	5
Maximum	Between ODU and [AHU/IDU]	m		J is <u>above</u> [AHU & ID J is <u>below</u> [AHU & ID				
Level Difference	Between AHU Heat Exchanger and EXV Box	m	2	2	2	2	2	2
Maximum	Control wiring between AHU Heat Exchanger and EXV Box	m	10	10	10	10	10	10
Length	Thermistor to AHU Heat Exchanger from C Box	m	10	10	10	10	10	10
Temperature Control	Modes (*)			erature Control nperature Control				

(\*) [Outlet Air Temperature Control] & [Duty Control] are available only in case of connections "1 ODU to 1 AHU" & "1 ODU to 1 AHU(Separate Heat Exchanger Type)".

### FEATURES AND BENEFITS

### Maximum optimization achievable thanks the great flexibility in DX-Kit!

### (1) Wide range of capacity

- (DX-Kit) Single capacity from 2HP class to 30HP class
- (Custom AHU) Maximum up to 96HP class available by DX-Kit combination
- $\rightarrow$  Our DX-Kit can cover from small to large capacity AHU  $\rightarrow$  It can meet any requirement in any application

# VRF IDU 4-WAY CASSETTE TYPE GROCERY COSMETICS ELECTRONICS MENS FASHION **1** ATH ATH ATH ATH Above : Expansion Valve Box (EXV Box) Below : Control Box (C Box)

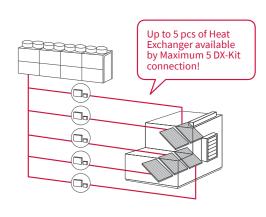
### (3) Flexible configuration

- $\rightarrow$  1 Outdoor Unit(ODU) & 1 Air Handling Unit (AHU)  $\rightarrow$  1 ODU & 1 AHU (Separate Heat Exchanger Type)  $\rightarrow$  1 ODU & Multiple AHUs  $\rightarrow$  1 ODU & AHU & IDUs

### [Example]

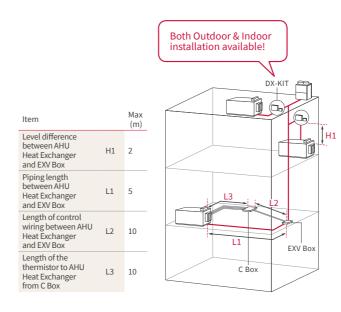


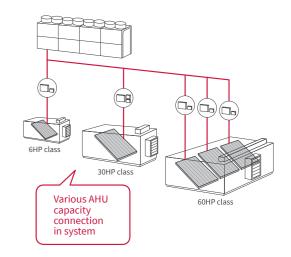
DX-KIT Left: Control Box (C Box) Right: Expansion Valve Box (EXV Box)

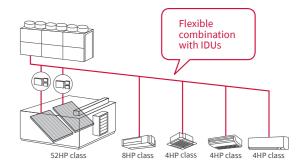


### (2) Flexible installation

- Both Outdoor & Indoor installation of DX-Kit available
- Design Flexibility in wiring & piping
- → This Installation flexibleness can fit in various design situation







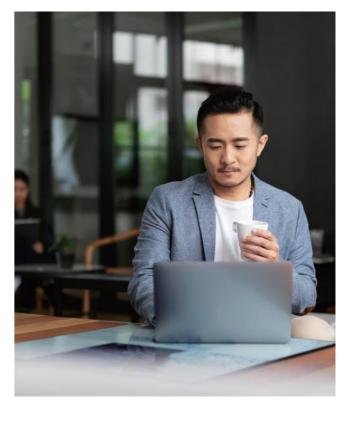
### 84

# CONTROLLERS

# **CONTROLLERS**

85	CENTRALIZED CONTROLLERS
85	LINE UP OVERVIEW
87	airCloud Pro REMOTE CONTROL BY IOT HC-IOTGW
89	CENTRAL STATION EX FOR LARGE-SCALE BUILDINGS PSC-A128EX1
90	CENTRAL STATION EZ FOR MEDIUM-SCALE BUILDINGS PSC-A64GT
	CENTRAL STATION mini FOR SMALL-SCALE BUILDINGS PSC-A32MN
91	INDIVIDUAL CONTROLLERS
91 91	INDIVIDUAL CONTROLLERS LINE UP OVERVIEW
91	LINE UP OVERVIEW  ADVANCED COLOR WIRE REMOTE CONTROLLER
91 93	LINE UP OVERVIEW  ADVANCED COLOR WIRE REMOTE CONTROLLER PC-ARFG  ADVANCED WIRED REMOTE CONTROLLER
91 93 96	LINE UP OVERVIEW  ADVANCED COLOR WIRE REMOTE CONTROLLER PC-ARFG  ADVANCED WIRED REMOTE CONTROLLER PC-ARF1  WIRED REMOTE CONTROLLER
91 93 96	LINE UP OVERVIEW  ADVANCED COLOR WIRE REMOTE CONTROLLER PC-ARFG  ADVANCED WIRED REMOTE CONTROLLER PC-ARF1  WIRED REMOTE CONTROLLER HCWA10NEGQ  SIMPLIFIED WIRED REMOTE CONTROLLER





# New generation: simple and smart!

Everyone deserves comfort, but comfort does not mean the same to everyone. That's why control is key.

Our controllers offer best-in-class simplicity. Using our appraised Central Stations, building managers can instantly optimize air conditioning in targeted zones. For occupants, our new Advanced Color controller provides intuitive navigation with a premium design.

With airCloud Pro, our exclusive new-generation solution, users can manage from one indoor unit to several systems remotely through IoT (web/smartphone).



### airCloud Pro (HC-IoTGW)

- Remote access by smartphone app or web
- Unlimited number of systems, zones and users
- Intuitive scheduling function
- Troubleshooting with access to error history and alerts
- Filter sign display to quickly overview daily maintenance needs

### Central Station EX (PSC-A128EX1)

- · Centralized Controller installed in the monitoring room.
- With 15 units of Extension Adapter (PSC-AD128EX1), max 2,560 IDUs can be controlled
- With Energy Calculation Software (PSC-AS01EXC), it helps you to offer each tenant's energy calculation.
- Easy monitoring achieved by several monitoring features like layout plan
- Best option for middle-large size building
- Remote Access! Operate Central Station EX from your laptop PC or touch-panel PC.

### Central Station EZ (PSC-A64GT)

- Max 64 Remote Controller Groups can be controlled & monitored
- Focusing on the monitor & control features
- 170mm×250mm body to fit in any wall space
- Best option for middle size building

### Central Station EZ (PSC-A32MN)

- Max 32 Remote Controller Groups can be controlled & monitored
- Focusing on the monitor & control features
- 120mm×140mm body to fit in any wall space
- Best option for small size building

### **COMPARISON**

				,		5 . 7 . 5 . 5 . 5 . 5 . 5 . 5 . 5 . 5 .
			HC-IoTGW	PSC-A32MN	PSC-A64GT	PSC-A128EX1
		RC group	64 (*6)	32	64	2,560 (*1)
		Group	64 (*6)	4	64	2,048 (*1)
	T. 10	Block	Unlimited (*7)	2/4/8/16	4	512 (*2)
Capacity	Total Connection capacity	Area	Unlimited (*7)	-	-	512 (*2)
comparison		Indoor unit	80 (*6)	160	160	2,560 (*1)
		Outdoor unit	16 (*6)	64	64	1,024 (*1)
	Building scale		Small - Large	Small	Medium	Large
	Operation		Web + Mobile Phone	Touch screen	Touch screen	Touch screen + Web (New!)
	Operation panel size options		Adaptive	4	2	7
Display	Layout		-	-	-	•
	List options		-	-	-	3
	All together		•	•	•	•
	By layout		-	-	-	•
	By area		•	-	-	•
Operation unit	By block		•	•	•	•
	By group		•	-	-	•
	By RC group		-	•	•	-
	By indoor unit		•	-	-	•
	Main 5 functions (*5)		•	•	•	•
	Individual controller lock		•	•	△ (*3)	•
Control Function	Filter sign reset		•	•	•	•
	Outdoor unit capacity control		-	△ (*4)	-	•
	Outdoor unit noise control		-	-	-	•
	Main 5 functions (*5)		•	•	•	•
	Individual controller lock		•	•	•	•
	Alarm status & code		•	•	•	•
Monitor Function	Filter sign		•	•	•	•
	Air inlet temperature of indoor unit		-	•	-	•
	Air inlet temperature of outdoor unit		-	•	-	•
	Weekly		•	•	•	•
	Setting times per day		16	10	10	16
Schedule Function	Special day setting		5	-	-	5
	Annual/Summer/Winter sche	edule	Future Version	-	-	•
	Alarm history (records numb		Unlimited	100	100	10,000
	External in/output history		-	-	-	1,000
Other function	Management report visualization(*11)		Energy Estimation (*8) - Future	•	•	•
	Data output by external med	ia	Download from Web - Future	-	-	SD card, USB flash dev
	Connectivity		Ethernet + 4G (*9)	-	-	-
oT Functions	Future Extendability		Firmware OTA (*10) Web + Mobile Update	-	-	-

air Cloud Pro

CENTRAL STATION mini CENTRAL STATION EZ CENTRAL STATION EX

(\*1) One Extension Adapter (PSC-AD128EX1) enable CENTRAL STATION EX to control additional 160 RC groups / 128 groups / 160 IDUs / 64 ODUs, 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

(\*3) Individual runicion: Control in Each reinder Control is Not applicable
(\*4) Applicable only with 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) Ability to connect unlimited number of "HC-IoTGW" in one project and control all AC units through one single screen on Web or Mobile Phone
(\*7) Ability to create unlimited levels of groups, across multiple "HC-IoTGW" units within same project
(\*8) Visualization of ODU energy consumption without needing to connect power meter
(\*9) 4G available through optional 4G module; 4G module package come with global SIM and pre-paid global data plan

(\*10) OTA: Over-the-air firmware update, provides always up-to-date firmware and latest functionalities (\*11) Mini , EZ : Accumulated operation time ( min ) , Accumulated thermo - ON ( min )

EX: 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.

# air Cloud Pro



### **SPECIFICATIONS**

### Outer Dimensions (H×W×D)

(mm) 200.0×138.0×41.0

Gateway Model	HC-IoTGW
Net weight (g)	540
Connection capacity	16 outdoor + 80 indoor units
Power supply (V)   (Hz)	100-240, AC   50/60
Max. power consumption (W)	10
Communication port	1 H-LINK, 1 RS485 Port
Internet connection	LAN (Ethernet) or 4G <sup>*3</sup>
External interface (log storage)	1 micro SD card slot

### **FUNCTIONS**

10110110110	
Monitor Function	Run/Stop/Abnormality
Control Function	• Run/Stop* • Fan Speed • Operation Mode • Louver • Temperature Setting • RC Operation Prohibited • Filter Sign Reset

<sup>\* &</sup>quot;All Groups Run/Stop" command signal exception function for selected groups is available by "Exception of Run/Stop Operation." function.

### **EXAMPLE OF SYSTEM CONFIGURATION**



### RECOMMENDED FACILITIES (EXAMPLE)









COLLEGE







RETAIL

### **FEATURES AND BENEFITS**

### Is airCloud Pro for me?

All VRF users can enjoy these benefits!

- Save energy
- Save time and unnecessary transportation
- Delegate administrators of VRF systems
- Create a comfortable climate for guests

### Future-proof

With updates and new features added regularly, airCloud Pro ensures you are always up to date.



Compatible with new and previous Hitachi Variable Refrigerant Flow

### Control is in your hands

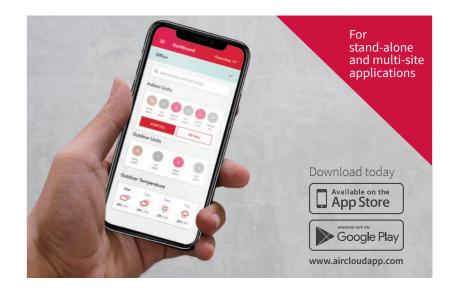
24/7 control at your fingertips on smartphone, tablet, or PC

### √ Intuitive simplicity

airCloud Pro is designed to make your job easier. An intuitive app that anyone can use, airCloud Pro makes managing your VRF systems simpler than ever before.

### √ Control from anywhere

Enjoy the freedom of remote access from your smartphone, tablet or laptop. airCloud Pro allows you to remotely control your VRF system(s) from a single app, saving you travel time.



### A simple yet powerful tool

### Simplify your job

The Pilot app makes managing your VRF systems easy.

### Centralized control

Control your entire VRF system or selected zones in one touch.

### Simplified troubleshooting

A clear error history, concise error description and follow-up.

### Smartphone alerts<sup>2</sup>

In the event of a critical malfunction.

### Flexible user management\*2

Add users and custom access restrictions.

### Save more energy

Monitor energy consumption and optimize usage.

### Energy consumption data\*2

Simple graphs visualize power consumption.

### Intuitive scheduling

Plan operations ahead based on your business hours.

### Individual controller lock

Prevent inappropriate usage from occupants.



### Create better comfort

Adjust temperature, fan speed, and modes with ease, creating total comfort and the ideal climate throughout your building.

An integrated weather forecast\*2 display helps you determine the most suitable conditions for your indoor spaces all year round.

# **Easy plug-and-play**

Our airCloud Gateway makes installation easy.

Connect to the airCloud via 3G/4G\*3 or Ethernet and pair your VRF systems via QR code scan. With automatic detection of indoor units and an optimized installer view, configuring your site and zones has never been quicker.

### + Data security

### Best-in-class standards:

TLS.v1.2, HTTPS 2038 encryption

### Minimal personal details:

only your name, email address and phone number are required for login

\*3 4G module available as a side accessory.

<sup>\*1</sup> Confirm compatibility of your VRF installation with your Hitachi Cooling & Heating representative.

<sup>\*2</sup> Functions not available as of September 2019, coming soon.





H-LINK	16
RC 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 Extension Adapter (PSC-AD128EX1) enable CENTRAL STATION EX to control additional 160 RC groups /128 groups / 160 IDUs / 64 ODUs, and Central Station EX can connect up to 15 adapters.

(\*2) No restriction on the number of H-LINK







Energy Calculation Software\* PSC-AS01EXC

\*Required only for calculating electricity



### **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

For Middle-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-AD128EX1).

Also, with Energy Calculation Software (PSC-AS01EXC)

CENTRAL STATION EX can help you easily manage each tenant's electricity & report the power consumption of VRF system for each tenant. Install by add-on software and activate, then, you can select Electricity Ratio or Usage Ratio from several methods.

### **REMOTE ACCESS**

You can now operate Central Station EX from your laptop PC or tough panel PC. Install our software and you can connect from anywhere, using our VPN network.

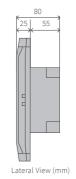


### **FUNCTIONS**

Operation unit	All together Each area Each block Each group Each RC group		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		Energy saving Run/Stop RC prohibition Temperature shift (For Cool/Dry mode: +1.0°C-+9.0°C (+1.0°F-+18.0°
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)	Schedule function	→ 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	External input / output	Control/Monitor → Controlled items: • Run/Stop • Mode (Cool/Heat)
	On/Off Mode	History	Alarm history: 10,000 records External In/Output history: 1,000 records Pulse input history: 6 months		<ul><li>→ Monitored items:</li><li>• Run/Stop</li><li>• Mode (Cool/Heat)</li></ul>
Monitor function	Set temperature Air intake temperature RC sensor temperature (*3) Air intake temperature of outdoor unit Fan Speed	Management	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		Alarm state     Others     Power consumption signal input     Emergency stop
L R T F	repo	report visualization	indoor unit  • Average air intake temperature of outdoor unit  • Average setting temperature  • Average RC sensor temperature	(*2) It is availabl (*3) There is a ca	or units may not fully support all functions. e for applicable outdoor units only. use that it cannot be shown in the screen, on the remote controller setting.

# 250mm

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 this Centralized Controller, CENTRAL STATION EZ.



### **CAPACITY**

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

### **SPECIFICATIONS**

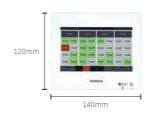
Rated Power Supply	1-, AC 100-240V, 50/60Hz
Electrical Power Consumption	30W (Max.)
Communication Unit	Units of Adopting for H-LINK
Communication Line	Non-polar 2-wire
Communication Speed	9,600bps
Wiring Length	1,000m (Total Length)
Display	8.5-inch Wide Color LCD (Full Dot)
Display Control	Touch Panel

### **FUNCTIONS**

Monitor Function	Run/Stop/Abnormality
Control Function	Run/Stop* • Fan Speed Operation Mode • Louver - Temperature Setting - RC Operation Prohibited - Filter Sign Reset

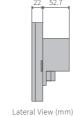
<sup>\* &</sup>quot;All Groups Run/Stop" command signal exception function for selected groups is available by "Exception of Run/Stop Operation." function.

# **CENTRAL STATION mini**



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 this Centralized Controller, CENTRAL STATION mini.

### FOR SMALL-SCALE BUILDINGS PSC-A32MN





### 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 RC 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 RC Operation Prohibited Filter Sign Reset	

 $<sup>^{\</sup>star}$  "All Groups Run/Stop" command signal exception function for selected groups is available by "Exception of Run/Stop Operation." function.



### Advanced Color wire remote controller (PC-ARFG)

- Exclusive colored screen & Award winning design
- Simplified menu and enhanced UIUX
- Includes latest VRF features such as FrostWash<sup>™</sup> or several comfort settings

### Wired remote controller (HCWA10NEGQ)

- 88mm square controller with LCD screen
- Smaller body with multiple features
- Best option for spaces where users are limited, like office

### Advanced Wireless remote controller (PC-AWR)

- Wireless remote controller with more features
- Several temperature setting units available; 0.5°C/1.0°C/1.0°F
- Best option for those who needs to control unit wherever, like home or hotel

## Advanced wired remote controller (PC-ARF1)

- 120mm square controller with LCD screen
- Multiple saving-power features equipped
- Best option for spaces where users are limited, like office

### Simplified Wired remote controller (PC-ARH1)

- Focusing on easy operation
- Mainly for temperature setting
- Best option for Hotels or Hospitals rooms many & unspecified users are expected to use it

### Wireless remote controller (PC-LH7QE)

- Economic and limited features
- 1.0°C temperature unit only
- Best option for those who needs to control unit wherever, like home or hotel

			WIRE REMOTE CONTROLLER	WIRED REMOTE CONTROLLER	CONTROLLER	WIRED REMOTE CONTROLLER	WIRELESS REMOTE CONTROLLER	REMOTE CONTROLLER
			26° ± 2.1.2.2	2. 2	-88e <sup>-</sup>	W 1885		
			NEW PC-ARFG	PC-ARF1	HCWA10NEGQ	PC-ARH1	PC-AWR	PC-LH7QE
Connection Ca	nacity	RC Groups	1	1	1	1	-	-
		Indoor units (*1)	16	16	16	16	-	-
	Temperature Setti		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	0.5°C/1.0°C/1.0°F	1.0°C
	Indoor Fan Speed		3/4/6 taps	3/4/6 taps	3/4/6 taps	3/4/6 taps	3/4/6 taps	3/4/6 taps
	Louver Direction (	·	•	•	•	•	•	•
	Individual Louver	rimary-Secondary Setting	•	•	•	-	-	-
etting		, , ,	•	•	-	•	-	-
	In Use of Total- Heat-Exchanger	Ventilation	•	•				
	rieat-Excilatiget	Total Heal Exchanger Setting Automatic Restart with Eco-operation	•	-				
	Function	Automatic Reset Temperature (Cooling)			•	•		
	Selection	Temperature Indication (*4)		-	•		-	
	Admin Password S			<u> </u>	<u> </u>			
	Filter Sign	Jetting .		•	•			
	Filter Sign Reset				•		•	•
	Louver Open/Clos	9						
	Room Name Setti				_			
		''B			•	•		
	Alarm Sign	units side-by-side					•	•
	Hotel mode	a	•	-		-		
		rmo-Off (Cooling/Heating)		•(*7)			-	
	. an Speed at Tilel	Screen Adjustment		• • • • • • • • • • • • • • • • • • • •		-	-	
		Screen Aujustinent	English, Japanese,		-	-	-	-
	Screen	Language	Chinese (traditional & simplified), French,	English, French	-	-	-	-
		Temperature Unit_°C/°F (*5)	Spanish, Portuguese	_		(*F)		
			•	•	•	• (*5)	•	-
Service & Installation		Adjusting Brightness of Run Indicator  Key touch sound	•		-	-	-	-
		Sensor Condition Check	•		•	-	-	
		Sensor Condition Check Sensor Data Check		•		-	-	
	Check Menu				-	-	-	
	CHECK MEHU	Model Display (*2) Indoor/Outdoor PCB Check			-	-	-	-
				•		-	-	-
		Alarm History Display	•		•	-		
		Test Run  Function Selection (Optional Function Setting)	•	•	-	-	-	-
		Function Selection (Optional Function Setting)	•			-	-	
		Thermistor Calibration	•	(*7)	-		-	-
		Thermistor Calibration	•	<b>(</b> *7)	-	-		-
	Test Pun	Input / Output Setting Indoor Unit Address Change	•	•	-	-	-	
	Test Run	Indoor Unit Address Checking Operation			-	-	-	
			•	•				
		Indoor Unit Address Initialization	•	•	-	-		-
		Input / Output Setting Initialization	•	•	-	-	-	-
		Compressor Pre-Heat Control Cancellation	•	•	-	-	-	-
	0 1 1 1 (0	Contact Information Registration	•	•	- (+c)	-	-	-
	Operation Lock/S		•		● (*6)	-	-	-
	Lower Limit for Co		•	•	•	•	-	-
	Upper Limit for He		•	•	•	•	-	-
	Simple Timer (On		•	•	•	-	•	•
lanagement	Adjusting Date/Tir		•	•	•	-	-	-
	Automatic OFF Tir	<u> </u>	•		-	•	-	-
		Weekly Schedule	-			-	-	-
	Schedule	Settable Timer Operation Times (Per Day)	5	5	1	-	-	-
		Holiday Setting	•	•	-	-	-	-
	D C	Schedule On/Off	•	•	-	-	-	-
	Power Saving with		•	•	-	-	-	-
	Outdoor Unit	Peak cut control	•	•	-	-	-	-
ower	Capacity Control	moderate control	•	•	-	-	-	-
aving	Indoor Unit	Indoor Unit Address	•	•	-	-	-	-
	Rotation Control	Indoor Air Temperature difference	•	•	-	-	-	-
	A	With Motion Sensor	•	•	-	-	-	-
	Automatic Fan Op	eration	•	•	-	-	-	-
	Elevating Grille	Anda	•	•	-	-	-	-
	ODU Night Quiet N		•	•	-	-	-	-
	AutoBoost (quick		•	•	-	-	-	-
		Control Cool Air (GentleCool)	•	•	-	-	-	-
		Direct/Indirect louver direction in COOL	•	•	-	-	-	-
	Comfort Setting	Direct/Indirect louver direction in HEAT	•	•	-	-	-	-
		Radiant Sensor Control for Heating	-	•	-	-	-	-
IENU		FeetWarm air flow control	•	-	-	-	-	-
		FloorSense Cool air flow control	•	-	-	-	-	-
		ht Quiet Schedule	•	•	-	-	-	-
	Filter Cleaning		•	•	-	-	-	-
	FrostWash Setting		•	-	-	-	-	-
	Daylight Saving Ti		•	•	-	-	-	-
		mperature Setback)	•	•	-	-	-	-
	Power Consumpti	on visualization	•		_	-		-

ADVANCED COLOR

WIRED REMOTE SIMPLIFIED ADVANCED WIRED REMOTE WIRELESS REMOTE

**COMPARISON** 

<sup>(\*2)</sup> Availability depends on the indoor unit type connected to the each individual controllers

Please consult your distributors for more details.

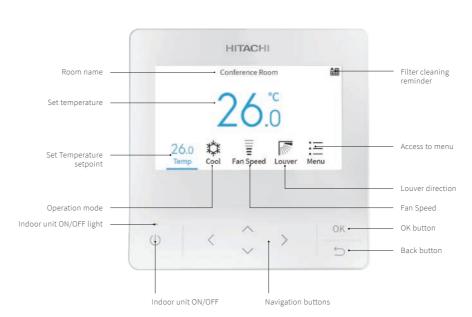
(\*3) 6 taps is available for Ducted indoor unit, compact type, RPIZ-HNDTSQ only.

or in the individual controller.

<sup>(\*5)</sup> Please contact your distributor in case temperature unit needs to be changed from °C to °F. (\*6) Only "bulk operation lock" available.

<sup>(\*7)</sup> Optional Setting Items for Function Selection



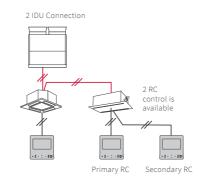


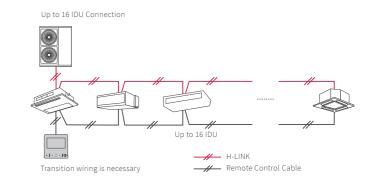
### **SPECIFICATIONS**

### Outer Dimensions (H×W×D)

121×120×16.5mm (Thinnest part) 121×120×21.5mm (Thickest part)

### **EXAMPLE OF SYSTEM CONFIGURATION**





### **FUNCTIONS**

	Simple Timer						
	Operation Schedule						
	Power Saving Setting						
	Night Quiet Operation						
	Power Saving/Night Quiet Schedule						
	Power Consumption Display						
	Autoboost						
	Comfort Setting						
Function	Motion Sensor Setting						
menu	Setback Setting						
	Elevating Grille						
	Reset Filter Reminder Time						
	Filter cleaning						
	FrostWash Setting						
	Individual Louver Setting						
	Louver Open/Close						
	Ventilation						
	Total Heat Exchanger SET						
	Adjust Date/Time						
Screen	Run Indicator Brightness						
Display	Display Adjustment						
setting	Temperature						
	Language Setting						

	Lock Function					
	Password Setting					
	Hotel Mode Set hotel mode valid/invalid					
rvice	Power Saving Detail Setting					
d tallation	Temperature Range Restriction					
enu /	Dual Setpoint					
rvice	Main/Sub Display					
	Set Room Name					
	Set Contact Information					
	Simple Maintenance					
	Test Run					
	Function Selection					
	Input/Output					
rvice	Thermistor Selection					
d 	Thermistor Calibration in Controller					
tallation enu / tallation	Fan Speed at Thermo-Off (cooling/heating mode)					
	Indoor Unit Address Change					
	Address Check Operation					
	Address Initialization					

	Setting Initialization
Service	Main Remote Setting
and	Priority Setting
installation	Cancel Preheating Control
menu /	Elevating Grille Setting
Installation	Power Up Setting
	Setback Trigger Unit
	Check 1
	Check 2
Service and installation	Alarm History Display
menu / Check	Display Model Number
, , , , , , , , , , , , , , , , , , , ,	Check PCB of the Units
	Self Check

NDIVIDUAL CONTROLLERS





# Outstanding aesthetics and user experience

Our new Advanced Color controller offers elegance, ease of use, and sleek award-winning design.

A simplified, intuitive and colorful menu makes controlling your ideal climate a breeze.









### From basic to advanced functions

Adjust the air conditioning to enhance comfort and save energy

Functions include GentleCool, which controls the discharged air temperature for a smooth cooling down and prevents cold drafts. AutoBoost activates for 30 minutes every time the AC is turned on, helping the room reach the desired temperature faster with a powerful automatic mode.

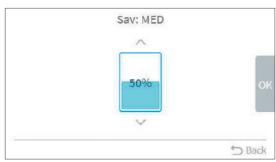
AC scheduling is easier than ever, thanks to flexible options such as a holiday calendar.

Save even more energy with power saving functions for VRF system operators. Cut peak capacity, rotate the thermal operation of indoor units, and use Hitachi's dedicated power saving schedule to match your utility tariffs plan.

### Additional functions

- $\bullet$  Activate, schedule and check the history of indoor units' FrostWash  $^{\text{TM}}$
- Minimize outdoor unit's noise at night with the schedulable quiet mode
- Hotel mode display provides quick access to the most popular AC functions for guests, including language selection





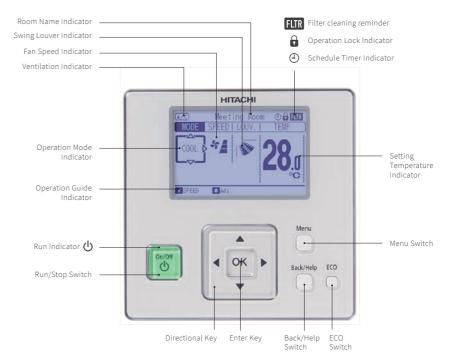
Capacity control setting



Schedule menu



# ADVANCED WIRED REMOTE CONTROLLER PC-ARF1

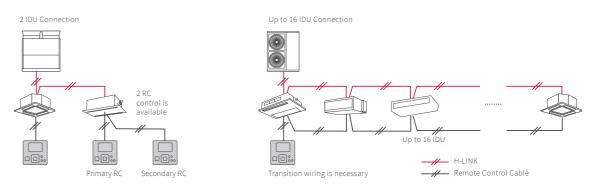


### **SPECIFICATIONS**

Outer Dimensions (H×W×D)

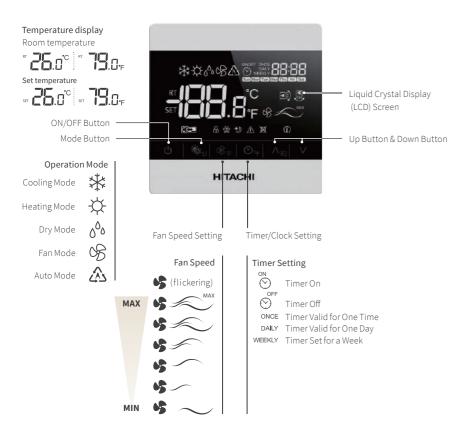
(mm) 120.0×120.0×17.9

### **EXAMPLE OF SYSTEM CONFIGURATION**



### **FUNCTIONS**

O <sub>I</sub>	Run/Stop	Run/Stop		Screen Adjustment		Operation Lock/Set
	Operation N	Node	Screen	Language		Main/Sub Control
	Auto Mode	Auto Mode Setting		Temperature Unit_°C /°F	Management	Built-in-Timer (On/Off)
	Temperatur	Temperature Setting		Adjusting Brightness of Run Indicator		Adjusting Date/Time Setting
	Temperatur	re Setting Rate_0.5°C/1.0°C/1.0°F		Sensor Condition Check		Thermometer Indication
	Fan Speed_	Fan Speed_3/4/6 Taps		Sensor Data Check		With Motion Sensor Kit
	Louver Dire	Louver Direction		Model Display		ODU Capacity Control
Setting		Individual Louver Setting		Indoor/Outdoor PCB Check		Peak-cut Control
000000		Remote Control Primary-Secondary Setting		Self Checking		Moderate Control
	In Use of	Ventilation		Alarm History Display		Indoor Unit Rotation Control
	Total-Heat- Exchanger	Total Heal Exchanger Setting		Test Run	Power-Saving	Automatic Fan Operation
		Automatic Restart with		Function Selection (Optional Function Setting)		Auto Recovery of Temperature
	Function	Eco-operation		Thermistor Selection		Upper Limit for Heating Operation
	Selection	Automatic Reset Temperature		Input/Output Setting		Lower Limit for Cooling Operation
		(Cooling /Heating)		Indoor Unit Address Change		Power Consumption Visualization
	Filter Sign	Temperature Indication	Test Run	Indoor Unit Address Checking Operation		Weekly Schedule
	Filter Sign F	Pocat		Indoor Unit Address Initialization		Settable Timer Operation Times (per day): 5
Service		Louver Open/Close		Input-Output Setting Initialization	Schedule	Holiday Setting
JCI VICE	Room Name	,		Compressor Pre-Heat Control Cancellation		Schedule On/Off
	Alarm Sign	c occurs		Contact Information Registration		ODU Noise Reduction Schedule



### **SPECIFICATIONS**

Outer Dimensions (H×W×D)

(mm) 88.0×88.0×15.5

### **FUNCTIONS**

	Run/Stop
	Operation Mode
	Auto Mode
C-44:	Temperature Setting Rate_0.5°C/1.0°C/1.0°F
Setting	Temperature Unit_°C/°F
	Fan Speed_3/4/6 taps
	Louver Direction
	Individual Louver Setting
	Filter Sign
Service	Filter Sign Reset
Service	Alarm Sign
	Alarm Sign History
	Daily Timer
Schedule &	Weekly Timer
Management	Main-sub Control
	Operation Lock

- 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**

	Run/Stop
	Operation Mode
	Auto Mode Setting
Cotting	Temperature Setting
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 WIRELESS REMOTE CONTROLLER PC-AWR



Outer Dimensions (H×W×D) (mm) 140.0×55.0×16.8

**SPECIFICATIONS** 

Run/Stop

Operation Mode

Auto Mode Setting Temperature Setting

Rate 0.5°C/1.0°C/1.0°F Fan Speed\_3/4/6 Taps Louver Direction

**FUNCTIONS** 

### **SPECIFICATIONS**

**WIRELESS** 

Outer Dimensions (H×W×D) (mm) 140.0×52.0×19.3

0

9

9 5

999

HITACHI

REMOTE CONTROLLER PC-LH7QE

LCD (Liquid Crystal Display)

Louver Angle Switch

Reset Switch

### **FUNCTIONS**

	Run/Stop		Identifying indoor units
	Operation Mode	Operation Mode Service side-by-side	side-by-side
	Auto Mode Setting		Temperature Unit_°C
Setting	Temperature Setting	Schedule	Built-in Timer (On/Off)
Setting	Temperature Setting Rate_1.0°C		
	Fan Speed_3/4/6 Taps		
	Louver Direction		

# RECEIVER KIT FOR WIRELESS REMOTE CONTROLLER

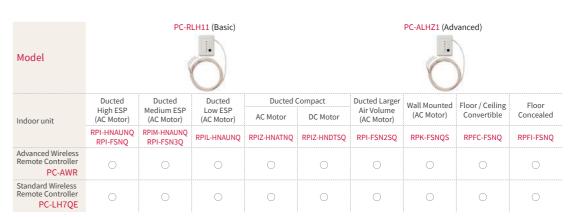
Filter Sign Reset

side-by-side

Temperature

Schedule Built-in Timer (On/Off)

Identifying indoor units



Model	HR4A10NEWQ (Basic)	(Advanced)		PC-ALHD1 (Advanced)	PC-ALHS1 (Advanced)	(Advanced)			ALHZ1 (Advance	,	
Indoor unit	4-way Cassette	4-way Cassette	4-way compact Cassette	2-way Cassette	1-way Cassette	Ceiling Suspended	Wall Mounted		Floor Concealed	Ducted High ESP	Ducted Medium ESP
	RCI-FSKDNQ	RCI-FSRP	RCIM-FSRE	RCD-FSR	RCS-FSR	RPC-FSR	RPK-FSRM RPK-FSRHM	RPF-FSN2E	RPFI-FSN2E	RPI-FSR RPI-FSN1	RPIM-FSR
Advanced Wireless Remote Controller PC-AWR	0	0	0	0	0	0	0	0	0	0	0
Standard Wireless Remote Controller PC-LH7QE	0	_	_	_	-	_	-	-	_	_	-

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]

(\*) Basic function receiver kit is installed as a standard part in this wall mounted unit. Wireless Remote Controller (PC-LH7QE) is delivered as a standard accessory as well. If separate placement of receiver kit is required, please use optional basic receiver kit [PC-RLH11] or optional advanced receiver kit [PC-ALHZ1]

1) It is not available to set up "remote control switch operation prohibited by each function setting" from central station (mini/EZ/EX) 2) It is not available to set up "remote control switch temperature setting range limitation function" from central station (mini/EZ/EX)

# **3P CONNECTOR CABLE**

(For Connection to Remote On/Off Device/Receipt of Output Signal)

Operation «example»

Cooling Operation: Compressor is ON by closing terminals 2

Compressor is OFF by opening terminals 2 and 3 of CN3

Heating Operation:

and 3 of CN3

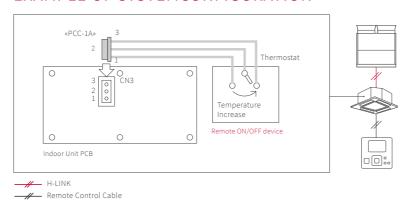
Compressor is ON by closing terminals 1 and 2 of CN3

Compressor is OFF by opening terminals 1 and 2 of CN3

\*One set contains five 3P connector cables.

 $^{\star}$ PCC-1A can connect to external signal input-output terminal both in Outdoor Unit and Indoor Unit.

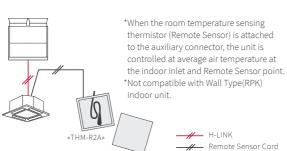
### **EXAMPLE OF SYSTEMCONFIGURATION**



# REMOTE SENSOR (To sense the indoor temperature)



### **EXAMPLE OF SYSTEM** CONFIGURATION



### **SPECIFICATIONS**

Outer Dimensions (H×W×D)

(mm) 50.0×50.0×15.0

Length m 8.00

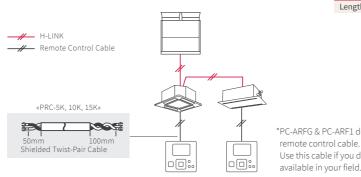
# REMOTE CONTROL CABLE

PRC-5K, 10K, 15K

(For PC-ARFG & PC-ARF1 connection (to IDU))



### **EXAMPLE OF SYSTEM CONFIGURATION**



### **SPECIFICATIONS**

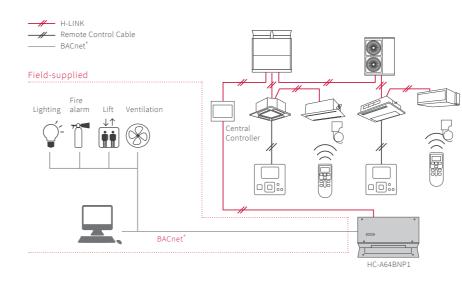
			PRC-5K	PRC-10K	PRC-15K
	Length	m	5.00	10.00	15.00
k PC-	ARF1 doe	s no	ot include a	а	
ntro	l cable.				
able	if you dor	't h	ave one		

# BMS ADAPTER for BACnet®

Control up to 64 Indoor Units



### **EXAMPLE OF SYSTEM CONFIGURATION**



### **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



# Flexible Wiring Routes

### 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.

### **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 FACILITIES (EXAMPLE)



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



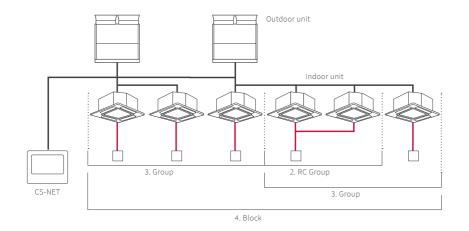
Hotels where it is preferable to complete installation work during



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. RC 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 "RC groups" that are registered in the central controller network setting.
- $\Rightarrow$  Stands for the multiple "groups" that are registered in the central controller network setting.



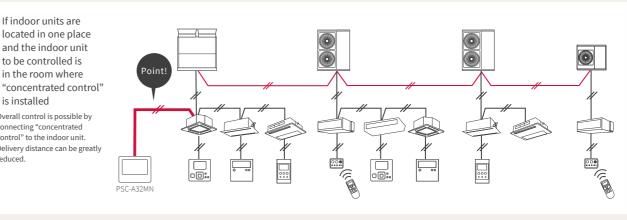
### (1) If indoor units are located in one place and the indoor unit to be controlled is in the room where

POINT

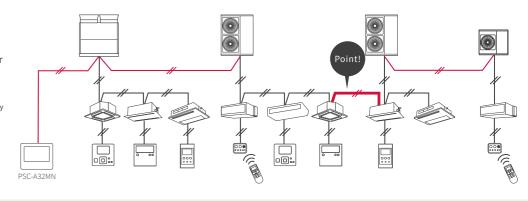
→ Overall control is possible by connecting "concentrated control" to the indoor unit.

is installed

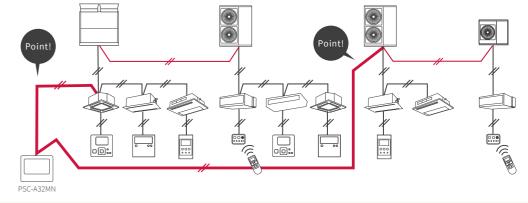
→ Delivery distance can be greatly reduced.



- (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 "concentrated
- → 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.

