

Johnson Controls - Hitachi Air Conditioning

<http://www.jci-hitachi.com>

HITACHI

Hitachi commercial VRF SET FREE Σ

Heat Recovery Type
FSXNP series / FSXNS series

Manufactured by

Distributed by



JQA-1084

ISO 9000 series The quality of our design and manufacturing systems has been approved.

We are a domestic business office designing and manufacturing air conditioners. We have obtained the international standard ISO 9001 certification regarding quality management systems.

Shimizu Air Conditioning Headquarters, Professional-Use Air Conditioning Business Division, Johnson Controls - Hitachi Air Conditioning
JQA-1084 obtained in November 1995



EC97J1107

ISO 14000 series Our environmental preservation activities have been approved.

We are a domestic business office designing and manufacturing air conditioners. We have obtained the international standard ISO 14001 certification regarding environmental management systems.

Shimizu Business Office, Johnson Controls - Hitachi Air Conditioning
EC97J1107 obtained in October 1997



Enjoy a new chapter in Hitachi VRF history

Let us regale you,
with the story of our new VRF system, SET FREE Σ.
Leave behind the agonies caused by limitations or inclement weather.
You will be captivated by the freedom and comfort that we offer.
It's a new chapter in VRF history,
where you can feel the future with air conditioning solutions by Hitachi.



Hitachi commercial VRF SET FREE Σ

Heat Recovery Type
FSXNP series / FSXNS series

Index	03	What can Hitachi VRF offer ?
	05	Outdoor Units
	71	Indoor Units
	139	Controllers
	169	Hitachi VRF History

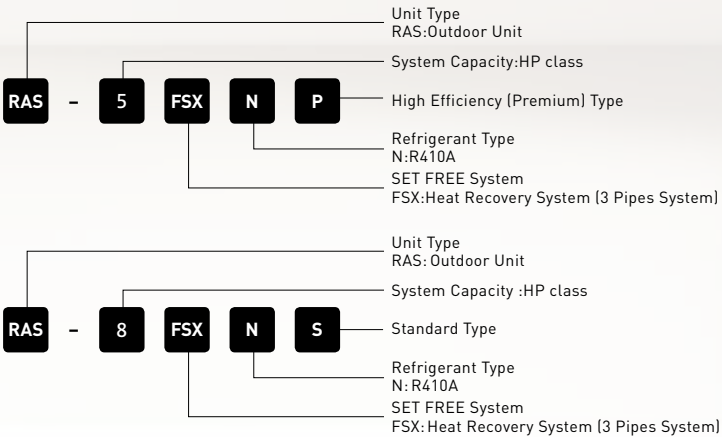
What can Hitachi VRF offer ?



 Greater Performance An average of up to 39% energy savings for some applications compared to conventional HVAC systems. - Higher efficiency ratio in APF, EER and COP - Lower CO₂ emissions - Lower power consumption	 Greater Design Flexibility Meet any local requirements and constraints with a number of improvements of Outdoor unit (e.g. Larger capacity range or Smaller footprints). - Larger capacity with smaller footprint - Better piping limit - FSXNP(54HP) / FSXNS(54HP) - Extended external static pressure - Widest Multi-Port CH-Box line-up - Improved corrosion resistance in heat exchanger	 Easier Installation Overall cost/time reduction thanks to the lightweight and modular VRF systems. [FSXNS] - Overall lighter cabinet (15% lighter on average) - Available for the lift transportation - New package design to be craned more easily - Multi-Port CH-Box newly available	 Comfort Delivering precisely the correct amount of heating or cooling to each zone leads to the comfortability, and also quiet operation and defrosting are upgraded. - Smart compressor control: keep indoor temperature more constant - Lower noise operation - New defrosting technology	 System Integration Delivering the ability of Integrating all management systems, from individual IDU to whole building, which leads to both time saving and cost saving. - H-LINK solution - Advanced individual and centralized control system - Easy BMS connection	 Maintenance Ease Easier maintenance thanks to Both the elimination of any water treatment like pumps etc., and Design change in unit. - All PCB visible and easily accessible - Easy access to compressors and valves - Smart refrigerant pump-down - New Multi-Port CH-Box leading to less expansion valves	 Better life-cycle costs VRF can operate for 20-30 years with whole easier maintenance, that leads to "Better Lifecycle Costs"! - More Efficiency Operation thanks to DX system - Maintenance Ease - Higher Control capacity thanks to Advanced Individual/Centralized control system	 Aesthetics Let alone total line-up of Ceiling Concealed type of IDU, Ceiling Cassette type of IDU are also designed not to be the noise in space. - Higher ESP ODU: the better visual aesthetics compared to outdoor installment - Wide range of ceiling concealed type of IDU (Ducted type) will suit to your interior requirement - Ceiling cassette type IDU are also designed to be clean and simple without any disturbance to indoor space.
---	--	---	---	---	--	--	---

OUTDOOR UNITS

Nomenclature



Outdoor Units Index

- 07 Line-up Overview
- 11 What is Heat Recovery System?
- 13 Features and Benefits Overview
- 15 Design Flexibility

NEW CH-BOX
COMPACT
EASY TRANSPORTATION
IMPROVED EXTERNAL STATIC PRESSURE
BETTER PIPING LIMIT
OPERATION TEMPERATURE RANGE
IDU COMBINATIONS RANGE

- 21 Adaptability
 - AUTOMATIC COOLING/HEATING OPERATION
 - SILENT MODE
 - IMPROVED STRENGTH
 - MAINTENANCE EASE
 - TO PREVENT FAILURE AND EMERGENCY OPERATION IN CASE OF FAILURE
 - DEFROSTING
 - LOW NOISE OPERATION
 - CORROSION RESISTANCE

- 25 High Efficiency
 - EFFICIENCY RATIO
 - 4 ADVANCED TECHNOLOGY
 - FAN
 - HEAT EXCHANGER
 - COMPRESSOR
 - COMPRESSOR CONTROL

Line-up Overview

FSXNP SERIES

Weight (N/W): in case of cabinet for “400V/50Hz, 380-415V/50Hz, 380V/60Hz”

Single module



5HP class[14.0kW] : RAS-5FSXNP 195kg
6HP class[16.0kW] : RAS-6FSXNP 195kg



8HP class[22.4kW] : RAS-8FSXNP 258kg
10HP class[28.0kW] : RAS-10FSXNP 262kg
12HP class[33.5kW] : RAS-12FSXNP 263kg
14HP class[40.0kW] : RAS-14FSXNP 273kg



16HP class[45.0kW] : RAS-16FSXNP 350kg
18HP class[50.0kW] : RAS-18FSXNP 365kg

Combination of single module



20HP class[56.0kW] : RAS-20FSXNP 524kg
22HP class[61.5kW] : RAS-22FSXNP 525kg
24HP class[67.0kW] : RAS-24FSXNP 526kg



26HP class[73.0kW] : RAS-26FSXNP 612kg
28HP class[77.5kW] : RAS-28FSXNP 613kg
30HP class[85.0kW] : RAS-30FSXNP 628kg
32HP class[90.0kW] : RAS-32FSXNP 638kg



34HP class[95.0kW] : RAS-34FSXNP 715kg
36HP class[100.0kW] : RAS-36FSXNP 730kg



38HP class[106.0kW] : RAS-38FSXNP 799kg
40HP class[112.0kW] : RAS-40FSXNP 809kg
42HP class[118.0kW] : RAS-42FSXNP 819kg



44HP class[122.0kW] : RAS-44FSXNP 901kg
46HP class[128.0kW] : RAS-46FSXNP 911kg



48HP class[136.0kW] : RAS-48FSXNP 993kg
50HP class[140.0kW] : RAS-50FSXNP 1003kg



52HP class[145.0kW] : RAS-52FSXNP 1080kg
54HP class[150.0kW] : RAS-54FSXNP 1095kg

Summary table

Item	Unit	New FSXNP series	Current (FSXNH)
Capacity	HP class	5-54 ↑	5-36
Nominal cooling capacity	kW	14.0 - 150.0 ↑	14.0 - 100.0
Nominal heating capacity	kW	16.0 - 165.0 ↑	16.0 - 112.0
Maximum connectable indoor unit quantity		64	64
Combination capacity ratio between ODU and IDU	%	50-150 ↑	50-130
Total piping length	m (ft.)	1000 (3281)	1000 (3281)
Maximum piping length between ODU and IDU	m (ft.)	165 (541)	165 (541)
Maximum equivalent piping length between ODU and IDU	m (ft.)	190 (623)	190 (623)
Maximum piping length between 1st branch and IDU	m (ft.)	90 (295)	90 (295)
Maximum height difference between ODU and IDU * (when ODU is higher than IDU)	m (ft.)	110 (361) ↑	90 (295)
Maximum height difference between ODU and IDU (when IDU is higher than ODU)	m (ft.)	40 (131)	40 (131)
Maximum height difference between IDU and IDU	m (ft.)	15 (49)	15 (49)
Cooling Operation Range **	°C DB (°F)	-5 to 52 (23 to 125.6) ↑	-5 to 43 (23 to 109)
Cooling Operation Range with Low Ambient setting **	°C DB (°F)	-10 to 52 (14 to 125.6)	-
Heating Operation Range **	°C WB (°F)	-20 to 15 (-4 to 59)	-20 to 15 (-4 to 59)
Simultaneous cooling and heating operation range ***	°C	-5 to 24°C DB -6 to 15°C WB	-5 to 24°C DB -6 to 15°C WB
Simultaneous cooling and heating operation range with Low Ambient setting ***	°C	-10 to 24°C DB -11 to 15°C WB	-

* Please consult your distributor or dealer if the height different is over 50m.
** For more details, please consult your distributors or dealer, or, refer to technical manuals.
*** Upper: mainly cooling / Lower: mainly heating for more details, please consult your distributors or dealer, or, refer to technical manuals.

Line-up Overview

FSXNS SERIES

Weight (N/W): in case of cabinet for “400V/50Hz, 380-415V/50Hz, 380V/60Hz”

Single module



8HP class(22.4kW) : RAS-8FSXNS 195kg
10HP class(28.0kW) : RAS-10FSXNS 195kg
12HP class(33.5kW) : RAS-12FSXNS 215kg



14HP class(40.0kW) : RAS-14FSXNS 271kg
16HP class(45.0kW) : RAS-16FSXNS 314kg
18HP class(50.0kW) : RAS-18FSXNS 315kg



20HP class(56.0kW) : RAS-20FSXNS 355kg
22HP class(61.5kW) : RAS-22FSXNS 369kg
24HP class(67.0kW) : RAS-24FSXNS 370kg

Combination of single module



26HP class(73.0kW) : RAS-26FSXNS 486kg
28HP class(77.5kW) : RAS-28FSXNS 529kg
30HP class(85.0kW) : RAS-30FSXNS 530kg



32HP class(90.0kW) : RAS-32FSXNS 586kg
34HP class(95.0kW) : RAS-34FSXNS 629kg
36HP class(100.0kW) : RAS-36FSXNS 630kg



38HP class(106.0kW) : RAS-38FSXNS 641kg
40HP class(112.0kW) : RAS-40FSXNS 684kg
42HP class(118.0kW) : RAS-42FSXNS 685kg



44HP class(122.0kW) : RAS-44FSXNS 738kg
46HP class(128.0kW) : RAS-46FSXNS 739kg
48HP class(136.0kW) : RAS-48FSXNS 740kg



50HP class(140.0kW) : RAS-50FSXNS 901kg
52HP class(145.0kW) : RAS-52FSXNS 944kg
54HP class(150.0kW) : RAS-54FSXNS 945kg

Summary table

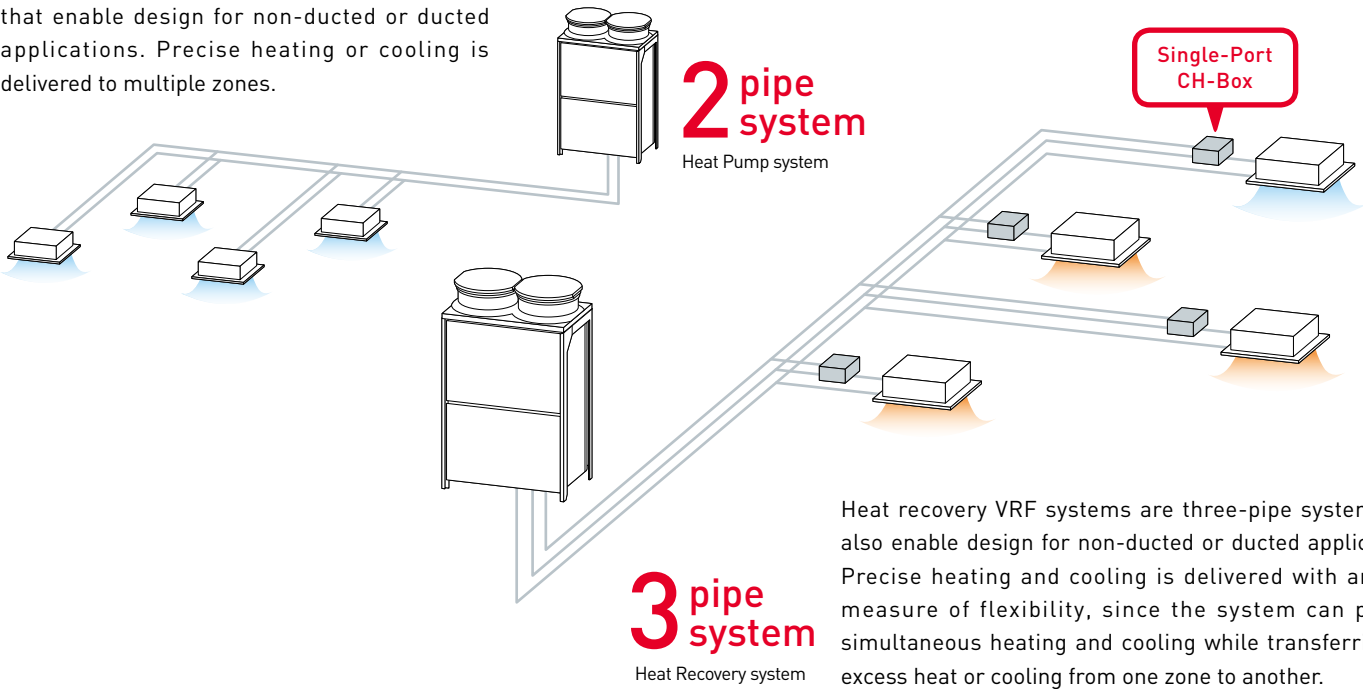
Item	Unit	New FSXNS series	Current (FSXN1)
Capacity	HP class	8-54	8-54
Nominal cooling capacity	kW	22.4 - 150.0	22.4 - 150.0
Nominal heating capacity	kW	25.0 - 165.0	25.0 - 165.0
Maximum connectable indoor unit quantity		64	64
Combination capacity ratio between ODU and IDU	%	50-130	50-130
Total piping length	m (ft.)	1000 (3281)	1000 (3281)
Maximum piping length between ODU and IDU	m (ft.)	165 (541)	165 (541)
Maximum equivalent piping length between ODU and IDU	m (ft.)	190 (623)	190 (623)
Maximum piping length between 1st branch and IDU	m (ft.)	90 (295)	90 (295)
Maximum height difference between ODU and IDU * (when ODU is higher than IDU)	m (ft.)	110 (361) ↑	90 (295)
Maximum height difference between ODU and IDU (when IDU is higher than ODU)	m (ft.)	40 (131)	40 (131)
Maximum height difference between IDU and IDU	m (ft.)	15 (49)	15 (49)
Cooling Operation Range **	°C DB (°F)	-5 to 48 [23 to 118] ↑	-5 to 43 [23 to 109]
Cooling Operation Range with Low Ambient setting **	°C DB (°F)	-10 to 48 [14 to 118] ↑	-5 to 43 [23 to 109]
Heating Operation Range **	°C WB (°F)	-20 to 15 [-4 to 59]	-20 to 15 [-4 to 59]
Simultaneous cooling and heating operation range ***	°C	-5 to 24°C DB -6 to 15°C WB	-5 to 24°C DB -6 to 15°C WB
Simultaneous cooling and heating operation range with Low Ambient setting ***	°C	-10 to 24°C DB -11 to 15°C WB	-

* Please consult your distributor or dealer if the height different is over 50m.
** For more details, please consult your distributors or dealer, or, refer to technical manuals.
*** Upper: mainly cooling / Lower: mainly heating for more details, please consult your distributors or dealer, or, refer to technical manuals.

What is Heat Recovery System ?

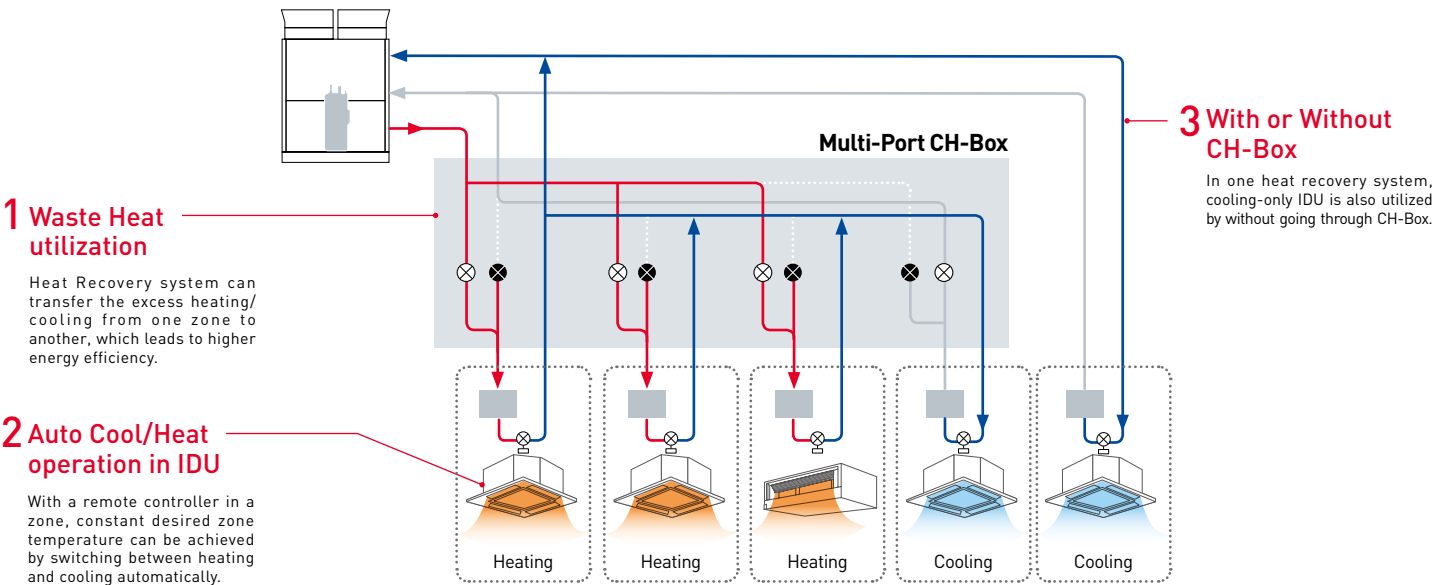
Heat Pump system and Heat Recovery system

Heat Pump VRF systems are two-pipe systems that enable design for non-ducted or ducted applications. Precise heating or cooling is delivered to multiple zones.



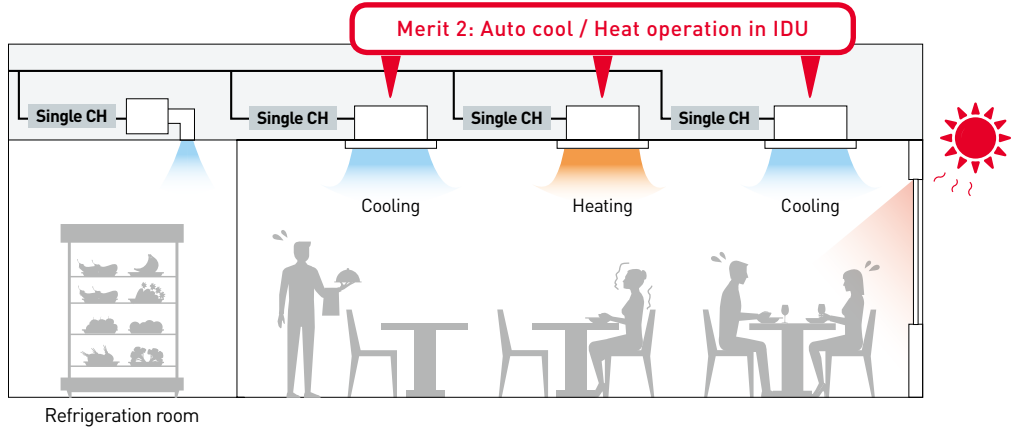
Heat recovery VRF systems are three-pipe systems that also enable design for non-ducted or ducted applications. Precise heating and cooling is delivered with an extra measure of flexibility, since the system can provide simultaneous heating and cooling while transferring any excess heat or cooling from one zone to another.

Merits in Heat Recovery system



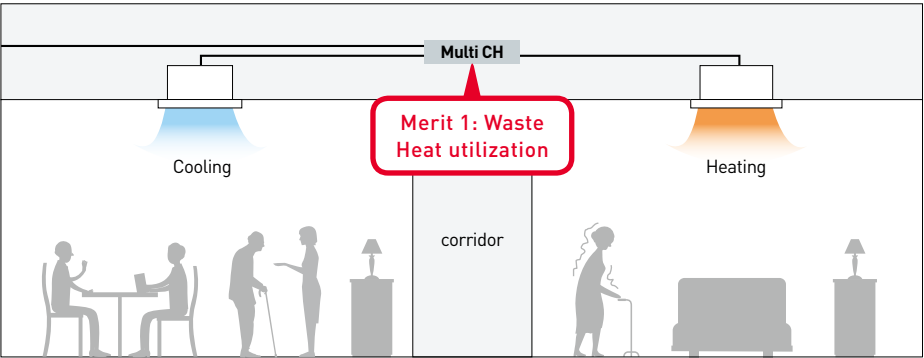
RECOMMENDED APPLICATIONS

Restaurant in shoulder season



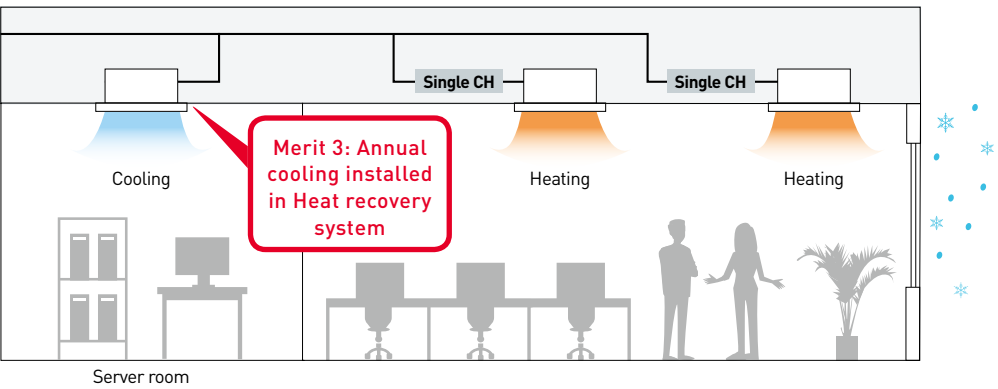
In AUTO mode, by thermistor built in IDU air inlet or RCS, IDU check the gap between the current temperature and set-point, which leads to the great comfortability and energy saving as well.

Nursing home in all season



Heat Recovery system able to individual heating and cooling simultaneously along each room's requirement.

Office in winter season



Cooling-only IDU is also utilized in the heating recovery system, which is useful for small server room for offices.

Features and Benefits Overview

FEATURES		ADVANTAGES	BENEFITS	
 ARCHITECT & SYSTEM DESIGNER	Heat recovery systems	• Allows simultaneous heating/cooling • Allows transfer of excess heat/cooling from one zone to another • Cooling only IDU can be included	• Maximizes comfort and efficiency • Maximizes design flexibility • Increases occupant comfort to specified zones	
	New CH-Box	• Multi-Port CH-Box (up to 16 ports) • Liquid-piping built-in design • No drain-piping needed • Top-in-class compact body • Top-in-class lightweight unit • Height difference between CH-Box to IDU extended up to 40m	• Allows design freedom • Reduces system costs	
	ODU Compact footprint	• Requires less indoor space than conventional systems	• Expands options for positioning outdoor units	
	Modular components ODU	• Provides flexibility to customize systems to each project's needs	• Simplifies design process • Allows easy updates as space is reconfigured or expanded	
	Piping flexibility: with pipe runs up to 1000 meter	• Suitable for short or long runs; accommodates nearly all projects	• Allows design freedom	
	Higher ESP: up to 80 Pa	• Provides more options for outdoor units to be installed inside building by using ducts	• Leads to both less piping length and lower installation cost • Better efficiency • Better visual aesthetics compared to outdoor installment	
	Temperature Range	• Operates from -20°C DB to 52°C DB (FSXNP series) • Operates from -20°C DB to 48°C DB (FSXNS series) • Heat Recovery Operates available: -5°C DB to 24°C DB	• Allows design freedom	
	Night Quiet Mode	• Lower sound power/sound pressure level by Three steps	• Meet the local limitations to sound level	
	Non-ducted systems	• Ultimate in design flexibility • Reduces clearance between building floors	• Reduces system costs • Ideal for historic renovations	
	Ducted systems	• Accommodates retrofits by making use of existing duct infrastructure • Suits unique buildings that include ducted and non-ducted areas	• Reduces overall construction costs	
	Connectable IDU/ODU capacity ratio up	• Up to 150% for Combination Capacity (FSXNP series) • Up to 130% for Combination Capacity (FSXNS series)	• Reduces system costs	
	VRF Selection Software	• Intuitive functionality that simplifies and speeds designs	• Allows confident selection and right-sizing of systems	
	H-LINK: Hitachi original communication system to control multiple ODUs and IDUs from one control point.		• No connection boundary among RAC, PAC and VRF • Flexible wiring routes	• Allows design freedom • Reduces system costs
	FEATURES		ADVANTAGES	BENEFITS
 MECHANICAL CONTRACTOR & INSTALLER	Compact footprint	• Requires less indoor space than conventional systems	• Ease of transportation leads to time/cost saving in installation	
	New CH-Box	• Multi-Port CH-Box (up to 16 ports) • Liquid-piping built-in design • No drain-piping needed • Top-in-class compact body • Top-in-class lightweight unit • Less expansion valve (Single-Port)	• Ease of transportation • Time/cost saving in installation	
	Lighter cabinet	• [FSXNP]13% lighter cabinet on average compared to Current Model (FSXNH) • [FSXNS]15% lighter cabinet on average compared to Current Model (FSXN1)	• Ease of transportation leads to time/cost saving in installation	
	New Package of ODU	• Easy to understand for craning	• Reduces installation time and cost	
	Installation simplicity	• Outdoor unit piping can be connected from front, back or underneath. • Small and light indoor units are easy to handle without heavy equipment	• Reduces installation time and cost	
	Comprehensive training	• Modules tailored to specific job functions	• Enables professional, high-quality, timely installation	
	Consistent, reliable product delivery	• Ensures correct components are delivered to job sites on time	• Enhances installation efficiency • Allows efficient labor scheduling	
	Easy maintenance access	• The upper panel (on the side of an electric box) independently detached from the lower panel (on the compressor chamber side) • All PCB visible and easily accessible including 7-segment display • More Space in lower section, easy access to compressors and each valve • Refrigerant evacuation: Enforced operation to open ODU EVO/EVB, IDU EVI, and Hi/Low pressure Bi-pass SVB	• Speeds up time spent on maintenance, repair, and troubleshooting	
	Improved Strength	• Rigidity ratio increased by 36.7%	• Extends service life	
	Technical Support Web	• All product information is available on TS-Web → http://www.jci-hitachi.com/support/technical	• Reduce time to check up the necessary resources	

FEATURES		ADVANTAGES	BENEFITS
 BUILDING OWNER	Rotational operation	In multiple-unit applications at partial load, outdoor units operate alternately so that operating hours are shared equally.	- Optimizes efficiency - Extends service life - Increases reliability
	Backup operation function	Allows one outdoor unit to be taken off-line for maintenance while remaining units keep operating.	- Avoids system downtime - Protects occupant comfort
	Efficiency optimized for part-load operation	APF cooling among industry's highest for VRF systems	Saves energy
	Optimum individualized comfort	Heat recovery systems deliver simultaneous heating and cooling	- Efficient heating/cooling - Maximizes occupant comfort
	Noise reduction preference mode	Let users choose from three settings for a "not to exceed" sound level	- Extremely quiet (sound ratings as low as 50 dB for outdoor units; 24.5-28 dB for indoor units) - Ideal where outdoor units are positioned on side of building or in locations where there are noise restrictions
	New CH-Box	- Quieter operation sound - less expansion valve and no drain-piping	- Lower sound pressure level - Maintenance Ease
	DC inverter-driven scroll compressor	Engineered to deliver the optimum efficiency at normal load conditions	- Among industry's most efficient VRF systems: - Highest EER - Highest APF - Highest COP in low and high heating modes
	Newly introduced compressor shield cover	New cover can shield up the compressor sound	Lower sound pressure level
	Compressor modulation in 0.1 Hz increments	Smoothly delivers only the exact amount of refrigerant needed for the load	- Allows fine control for optimum comfort - Saves energy
	Demand control	Users can select from a wide variety of power settings from 100% to 60% and program "not to exceed" a given power level	- Limits electric demand charges - Limits equipment wear and tear - Reduces noise
	Corrosion-resistance improved / Protection layer of "Phosphoric acid chromate treatment" added	More reliable cabinet	Life of cabinet extended
	Smooth Drive: new compressor control operation system	Controls compressor more efficiently	- Saves energy - Constant room temperature
	Load shedding	Allows programming to turn units on/off in rotation at 10- to 20-minute intervals	- Saves energy - Limits demand charges
	Low noise operation	- Improved compressor cover - Improved Fan + Fan-inlet structure	More quiet operation
	New Heat Exchanger (Σ shape!)	Heat exchange are increased by more than 10 % (compared to current model)	- Greater heat exchange rate - More efficient operation
	New long blade propeller fan	Longer fan blades increase airflow quantity by 25%, resulting in higher static pressure	- Operates more efficiently - Extends motor life
	As high as 200 Pa static pressure in ducted systems	Offers adjustable speeds to match the static pressure requirement	Flexibility to accommodate long or short ductwork runs
	Widest range of line-up	meets any of your indoor requirement	keeps aesthetic
	Optional motion and radiant sensors	Sets back temperature when space is unoccupied, increasing efficiency even further	Saves energy
	"H-LINK" Protocol	- Controls multiple indoor and outdoor units from one control point - Adds versatility to connect various central control options	- Maximizes indoor comfort - Saves energy - Improves system management
	Temperature control	- Adjusts in 0.5/1 °C increments - Adjustable fan speeds	- Auto-adjusts for daylight saving time - Provides options to satisfy multiple projects/buildings
	H-LINK BACnet adapter for integration into BMS	Enables control of VRF systems by way of a building management system [e.g. Metasys®] for almost unlimited control in a building of campus enterprise.	- Optimizes comfort - Saves energy - Unified interface for all HVAC systems
	Wide controllers line-up / variety of individual controllers & centralized controllers	Meets any requirement for your application	Better management achieved thanks to our advanced controllers

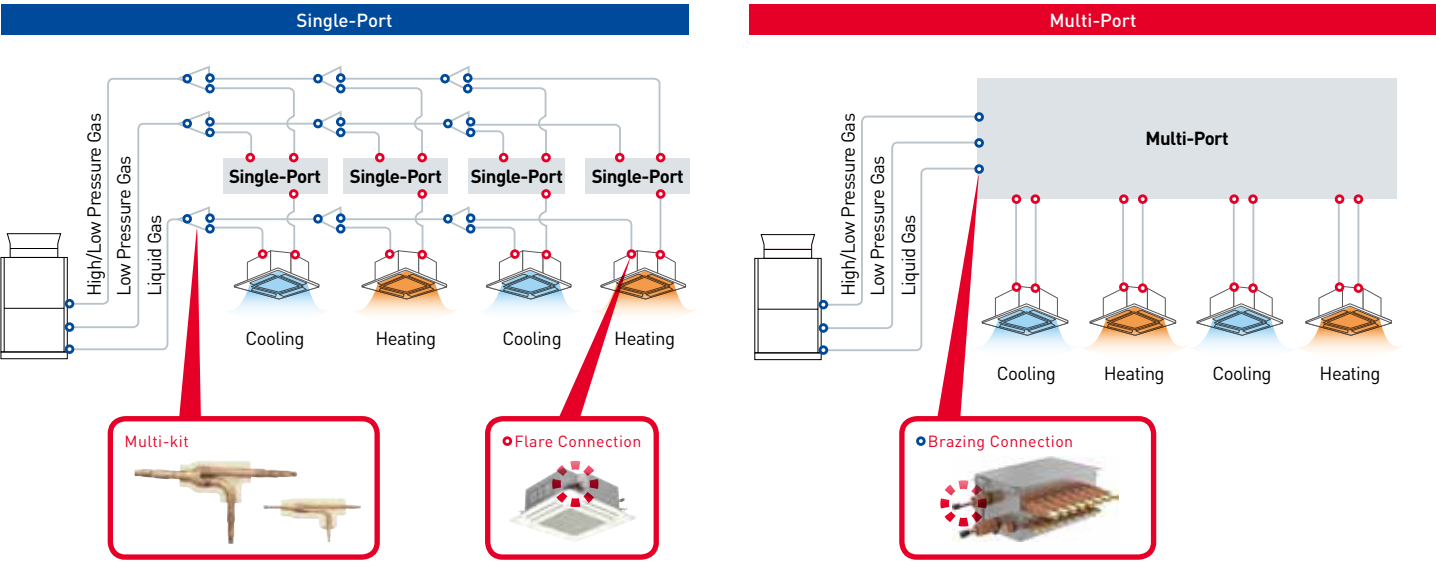
Design Flexibility

NEW CH-BOX (CHANGE-OVER BOX)

Wider line-up

Type		Single-Port		Multi-Port			
Model Name		CH-AP160SSX	CH-AP280SSX	CH-AP04MSSX	CH-AP08MSSX	CH-AP12MSSX	CH-AP16MSSX
Images							
							
Dimensions (H*W*D) (mm)		191 × 301 × 214	191 × 301 × 214	260 × 303 × 352	260 × 543 × 352	260 × 783 × 352	260 × 1023 × 352
N/W (kg)		6 ↓	6 ↓	14	25	36	47
Electrical Details	Power Supply	AC1ϕ 230V/50Hz, 220-240V/50Hz, 220V/60Hz			AC1ϕ 230V/50Hz, 220-240V/50Hz, 220V/60Hz		
	Power Input [W]	5	5	11.2	22.4	33.6	44.8
	Current [A]	0.1	0.1	0.2	0.4	0.6	0.8
Maximum Total Capacity Index (kW)		16	28	44.8	85	85	85
Number of port (for IDU)		1	1	4	8	12	16
Maximum Connectable IDUs per Port		7	8	6	6	6	6
Maximum Piping length	between CH-Box and the IDU	40m ↑					
	between CH-Box	15m					
Maximum Height difference	Between CH-Box and IDU	15m					
	between IDUs connecting to same CH-Box	4m					

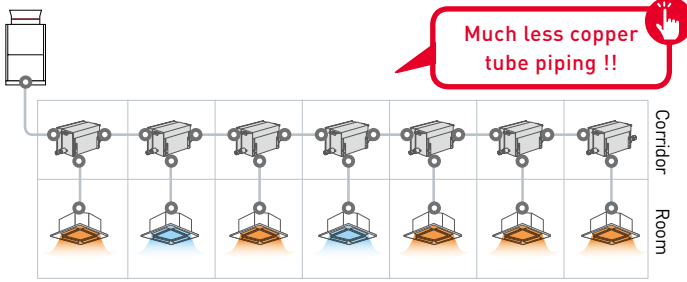
System configuration



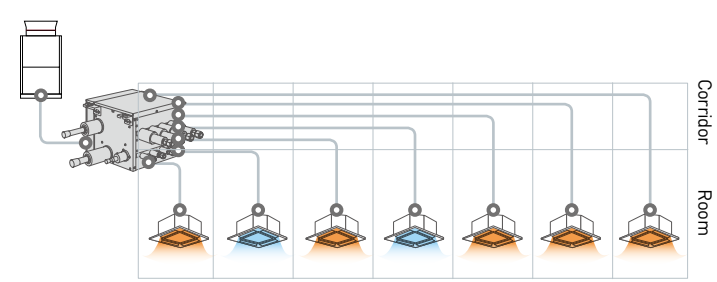
Which is better?

▼ “Long narrow building” application

Single-Port



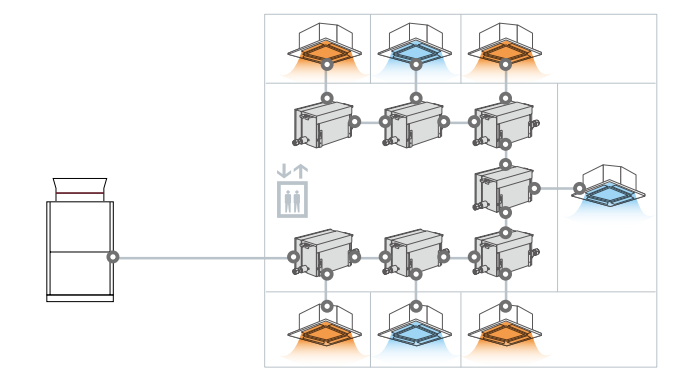
Multi-Port



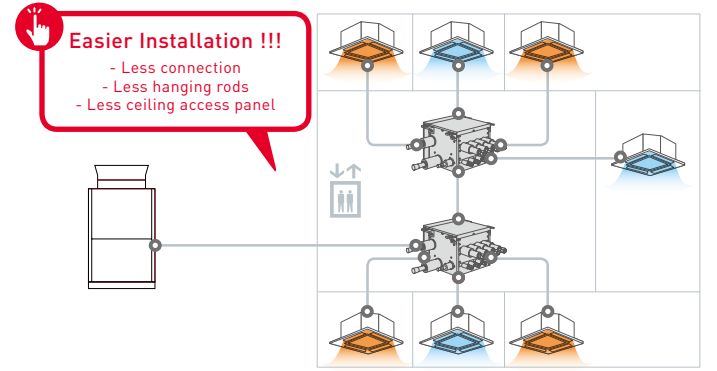
Single-Port	Item	Multi-port
58m	Total piping Length	136m
6	Needed multi-kit sets	0
92 points (Brazing: 57 / Flare: 32)	Connection Points	34 points (Brazing: 6 / Flare: 28)
14	Hanging Rods for CH-Box	4
14 pieces	Total Ceiling Access Panel	8 pieces

▼ “Central CH-Box location” application

Single-Port



Multi-Port



Single-Port	Item	Multi-Port
60m	Total piping Length	63m
6	Needed multi-kit sets	1
92 points (Brazing: 57 / Flare: 32)	Connection Points	40 points (Brazing: 12 / Flare: 28)
14	Hanging Rods for CH-Box	8
14 locations	Total Ceiling Access Panel	9 locations

Hitachi's CH-Box merit

Top-in-class compact body
Top-in-class light-weight unit

More Design Flexibility



No drain connection needed

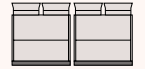
Easier Installation

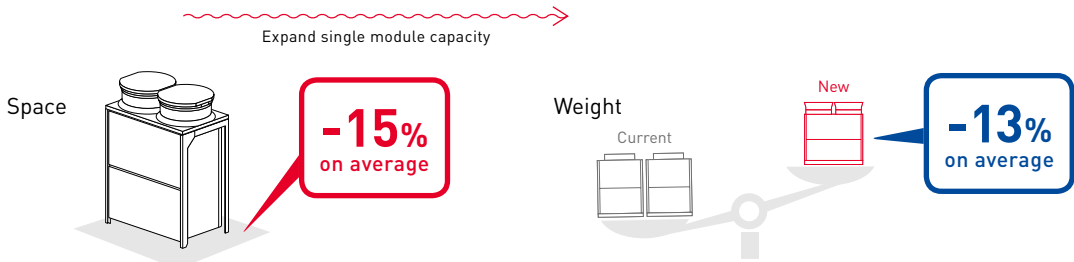


COMPACT

FSXNP

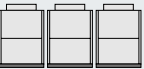
Combination comparison of outdoor unit

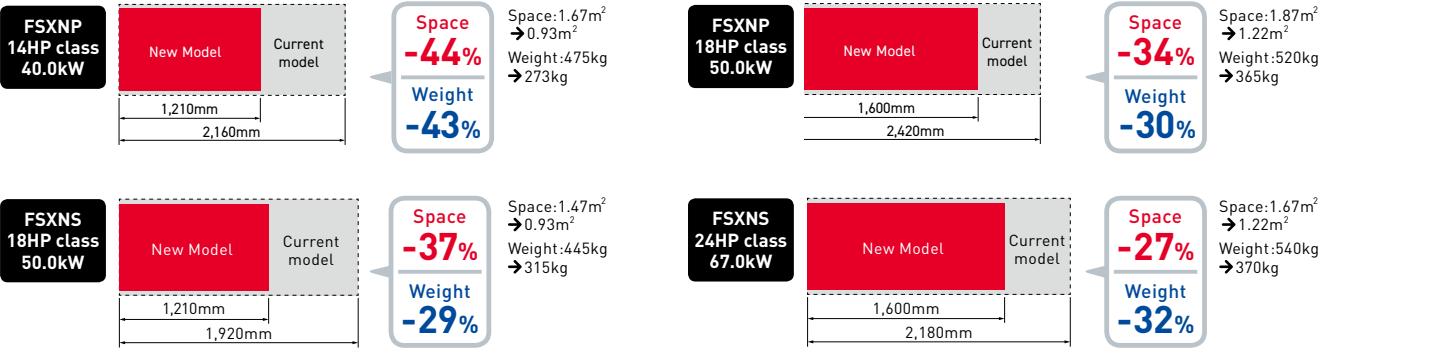
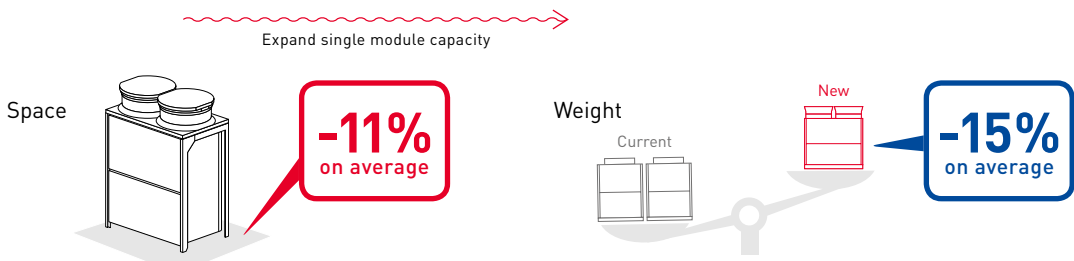
HP class	5 to 12	14 to 18	20 to 24	26 to 36	38 to 54
Cooling Capacity(kW)	14.0 to 33.5	40.0 to 50.0	56.0 to 67.0	73.0 to 100.0	106.0 to 150.0
Current Model (RAS-FSXNH)	 Single Module	 Two Units	 Two Units	 Three Units	—
New Model (RAS-FSXNP)	 Single Module	 Single Module	 Two Units	 Two Units	 Three Units



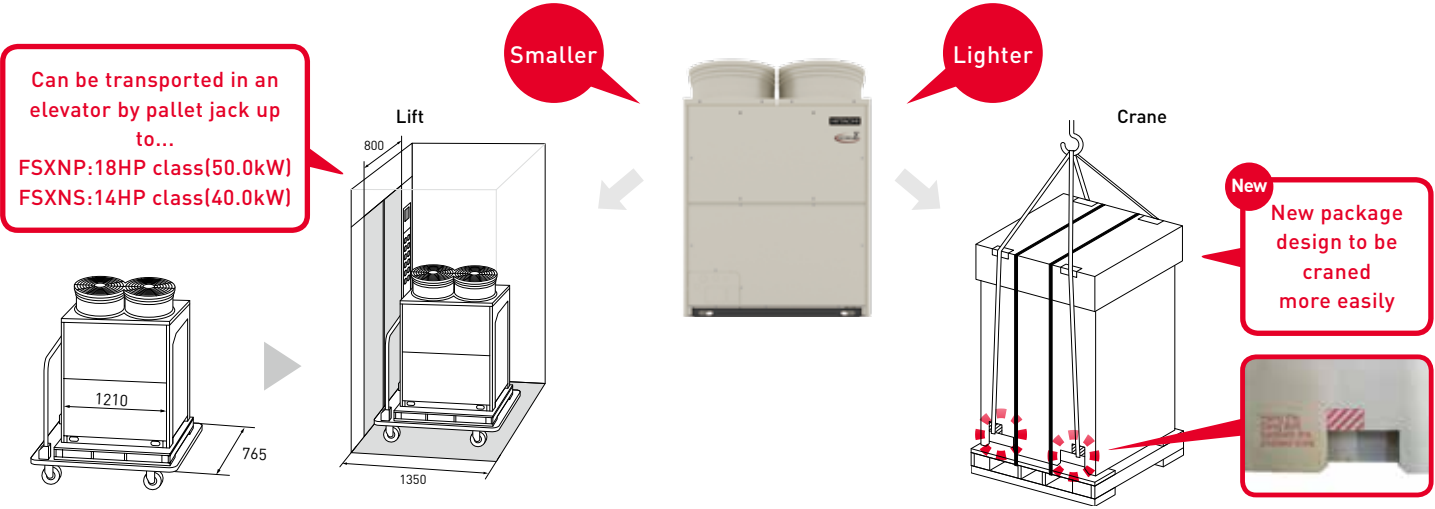
FSXNS

Combination comparison of outdoor unit

HP class	8 to 16	18 to 24	26 to 32	34 to 48	50 to 54
Cooling Capacity(kW)	22.4 to 45.0	50.0 to 67.0	73.0 to 90.0	95.0 to 136.0	140.0 to 150.0
Current Model (RAS-FSXN1)	 Single Module	 Two Units	 Two Units	 Three Units	 Four Units
New Model (RAS-FSXNS)	 Single Module	 Single Module	 Two Units	 Two Units	 Three Units

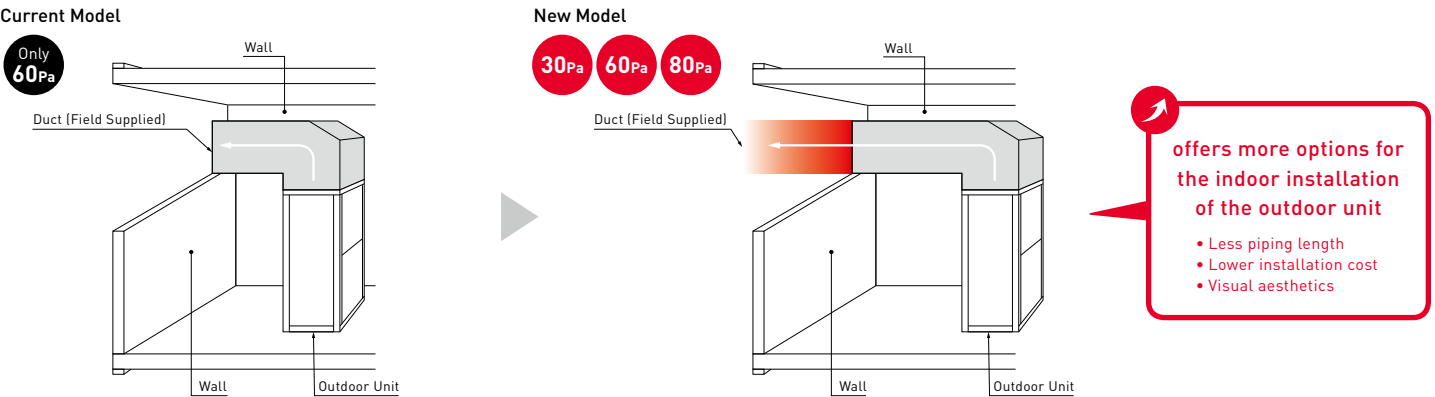


EASY TRANSPORTATION



IMPROVED EXTERNAL STATIC PRESSURE

High static pressure for outdoor units: can handle up to 80Pa



* Please refer to the technical catalogue for more details.

BETTER PIPING LIMIT

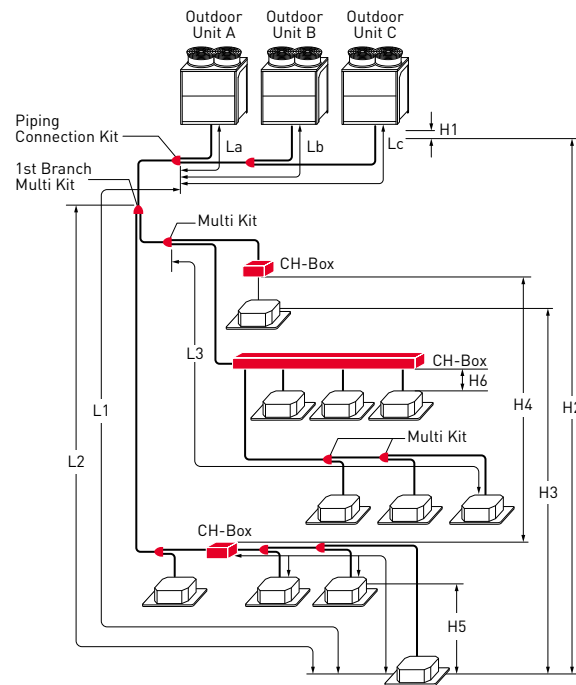
Improvement of restrictions on piping construction

		Example	Length (m)
Maximum Piping Length	Total piping length	-	1000
	Refrigerant piping length	L1	165 (190)
	Between Piping connection kit and each ODU	La, Lb, Lc	10
	Between "1st branch Multi-kit" and the farthest IDU	L2	90
	Between "Multi-kit" and each IDU	L3	40
	Total piping length Between CH-Box and IDU	-	40

		Example	Height (m)
Maximum Height Difference	Between ODUs (combination of base units)	H1	0.1
	Between ODUs and IDUs	ODU is higher than IDU	≤ 110(*)
		IDU is higher than ODU	40
	Between IDUs	H3	15
	Between CH-Box	H4	15
	Between IDUs connecting to one CH-Box	H5	4
	Between IDU and CH-Box	H6	≤ 15

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

(*) Custom Order: up to 110m / Standard: up to 50m



Piping direction

The pipes can be installed in three directions (front, rear or bottom side) from the bottom base.

For Piping from Front Cover

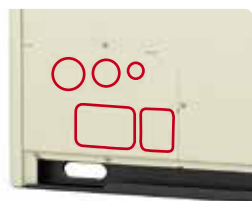
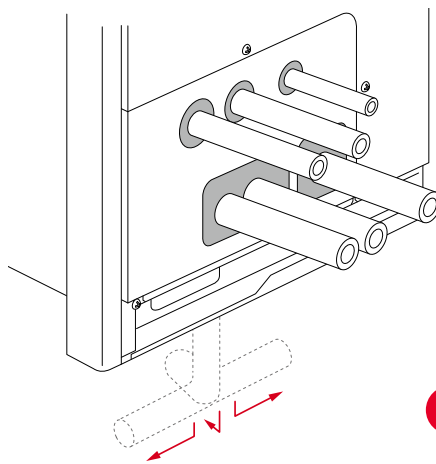
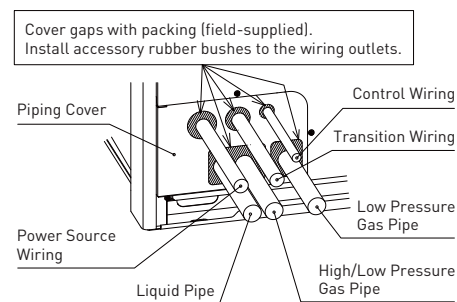
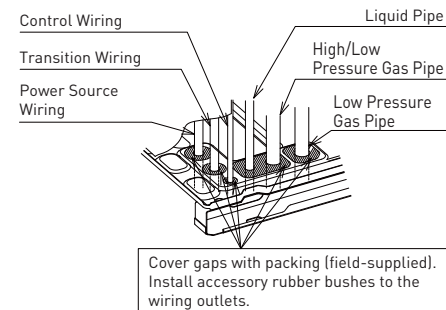
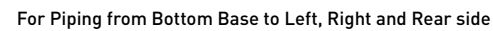


image: front



For more
service spa
in front.

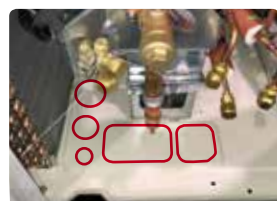
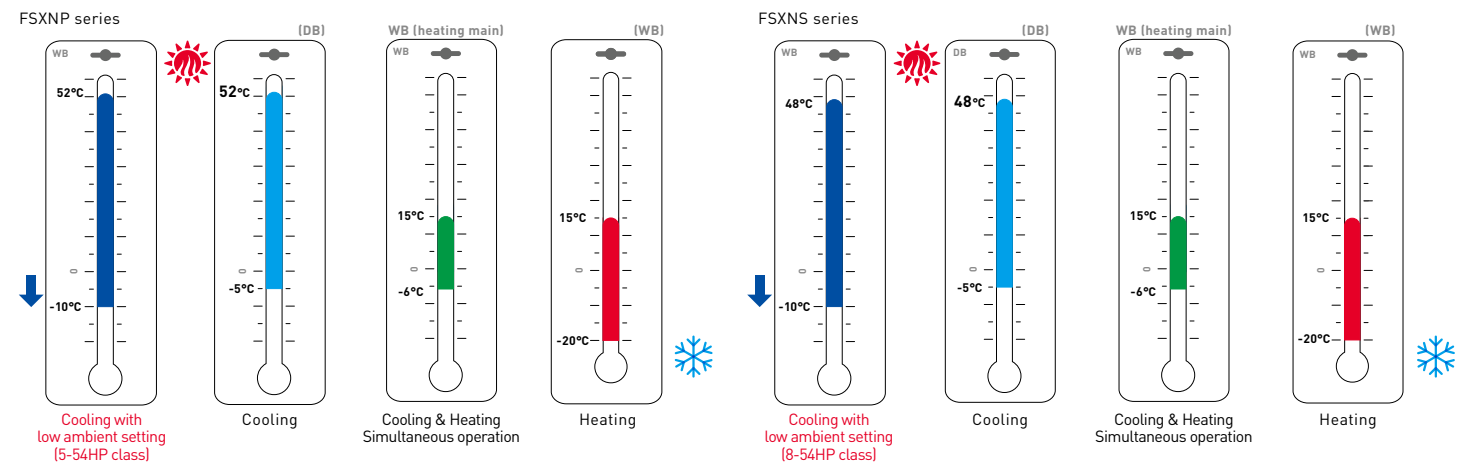


image: bottom

OPERATION TEMPERATURE RANGE

Expansion of scope of outdoor operating temperature

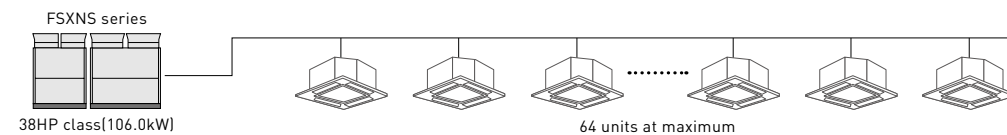


NOTES:

1. Cooling operation at maximum 48°C DB [for standard type] and 52°C DB [for high efficiency type] should be available only if the outdoor air inlet temperature increases temporarily according to the installation condition.
2. If install the units to the place where exceed ambient temperature 48°C continuously, the combination ratio must be lower 130% and not to operate all of the indoor unit simultaneously.
3. The cooling capacity is deteriorated at high ambient temperature. Select the larger capacity outdoor unit than compatible building heat load.
4. The appropriate amount 100% of refrigerant must be charged. Excessive charging of refrigerant is forbidden.
5. It must be avoided to install the units where affected by direct sunlight reflection and short circuit. There may be the possibility to activate protection control and alarm system if parts of the units to inappropriate place. Also the life time of parts must be considerably shorter.
6. Periodic maintenance 1 [certain month] must be applied to the heat exchanger fin to avoid adhesion of dirt and clogging of sand to the outdoor unit heat exchanger.
7. Refer to the technical catalog for the detail.
8. Operation temperature range in simultaneous heating & cooling varies depending on whether mainly heating or mainly cooling. Refer to technical catalogue for more detail.

IDU COMBINATIONS RANGE

Expansion of number of connectable indoor units



Outdoor Unit Capacity_HP class	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38-54
Cooling Capacity_kW	14.0	16.0	22.4	28.0	33.5	40.0	45.0	50.0	56.0	61.5	67.0	73.0	77.5	85.0	90.0	95.0	100.0	106.0-150.0
Range of Combination Capacity	50-150%: High Efficiency Type (FSXNP)(5-54HP class) 50-130%: Standard Type (FSXNS)(5-54HP class)																	
Maximum Connectable IDU Quantity	8	9	13	16	19	23	26	26	33	36	40	43	47	50	53	56	59	64
Recommended Connectable IDU Quantity	5	5	8	10	10	16	16	16	18	20	26	26	32	32	32	32	32	38

NOTES:

- NOTES:
1. The connectable indoor unit capacity ratio can be calculated as follows.

$$\text{Connectable Indoor Unit Capacity Ratio} = \frac{\text{Total Indoor Unit Capacity}}{\text{Total Outdoor Unit Capacity}}$$
 2. For the system under which all the indoor units are supposed to operate simultaneously, the total indoor unit capacity should be less than outdoor unit capacity. Otherwise, it may cause a decrease of operating performance and operating limit in overload operation.
 3. For the system under which all the indoor units are not supposed to operate simultaneously, the total indoor unit capacity is available up to 130% [FSXNS Type] / 150% [FSXNP Type] against the outdoor unit capacity.
 4. When operating the outdoor unit in cold areas with temperatures of -10°C, or under the high heating load conditions, the total indoor unit capacity should be less than 100% against the outdoor unit capacity and the total piping length should be less than 300m.
 5. The air flow volume for indoor units of 0.8 and 1.0HP class is set higher than that for indoor units of 1.5HP class or more. Make sure to select appropriate indoor units when installing indoor units where cold draft may occur during heating operation. If installing indoor units in such places, refer to the recommended number of connectable indoor units.
 6. If combination capacity of indoor units exceeds 100% of outdoor unit capacity, there might be the possibility of insufficient capacity of 130% [FSXNS Type] and 150% [FSXNP Type] combination ratio. Refer to the technical catalogue for details.
 7. If combination exceeds 130% [FSXNS Type] or 150% [FSXNP Type], please contact your distributor or dealer.

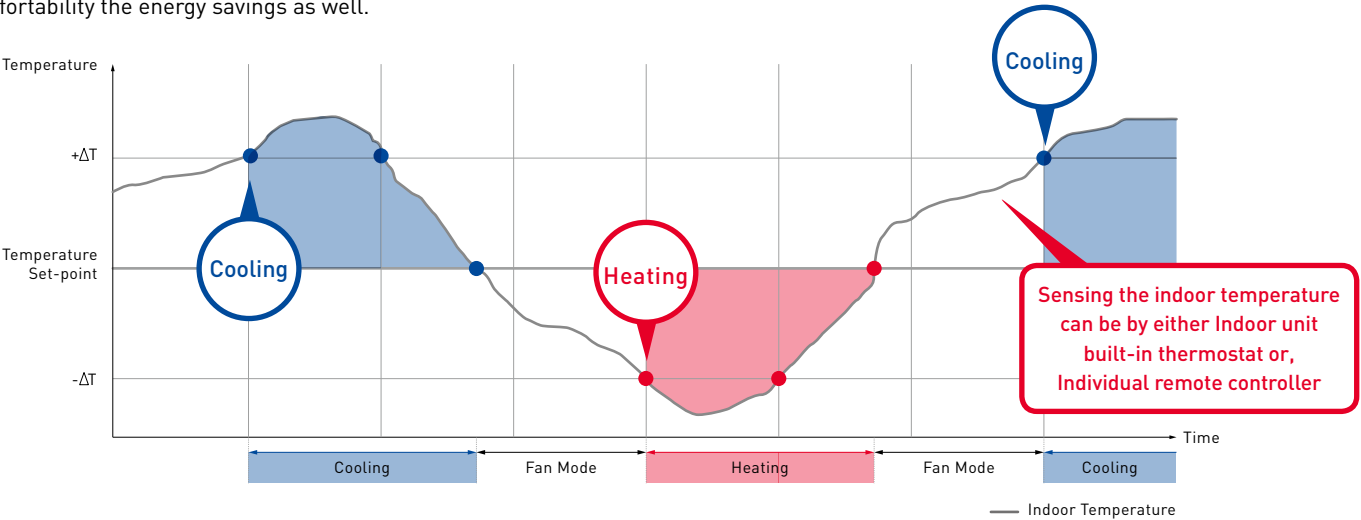


Adaptability

AUTOMATIC COOLING / HEATING OPERATION

Auto changeover

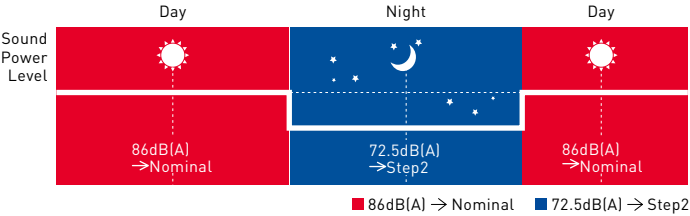
Just operate in AUTO mode and it can keep the room temperature as constant as possible with “Automatic heating / cooling operation” which makes the most of Heating Recovery system, leading to great comfortability the energy savings as well.



SILENT MODE

The user can set a (three-step) nighttime low-noise schedule using the control unit remote controller**. The user can set a schedule for operation that takes the ambient environment into account.

Setting example



FSXNS series	18HP class(50.0kW)	42HP class(118.0kW)
Noise Reduction mode	Sound Power Level	Sound Power Level
Nominal	86	89
Step1	82.5	86
Step2	77.5	81
Step3	72.5	76

*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. Please consult the dealer in inquiry.



MAINTENANCE EASE

Total structure change

New Structure:
In upper section, all PCB visible and easily accessible

Newly adopted window for 7-segment display:
Adopting access door to the electrical box in the upper panel, which leads to easy access to 7-segment display, PSW & DSW and so on.

New Panel:
The upper panel (on the side of an electric box) can be independently detached from the lower panel (on the compressor chamber side)

New Structure:
More Space in lower section, easy access to compressors or valves

Totally New!

New DSW setting for Refrigerant evacuation:
Enforced operation to open ODU EVO/EVB, IDU EVI, and Hi/Low pressure Bi-pass SVB

After DSW4-4 On

PSW4 () for 3 seconds

fully opening the expansion valves of outdoor unit (EVO, EVB) and the expansion valve of indoor unit (EVI), and opening the solenoid valve of outdoor unit (SVA)

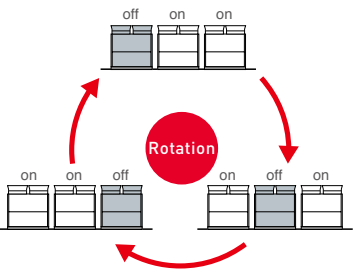
Simplify “refrigerant recovery & evacuation work” and “air tight test” during servicing

Mechanical Contractor & Installer

TO PREVENT FAILURE AND EMERGENCY OPERATION IN CASE OF FAILURE

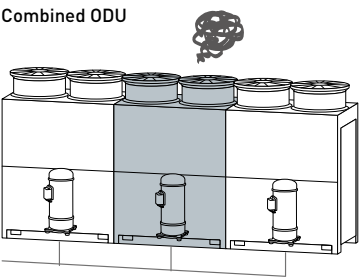
To prevent failure

Standardize the running time of the individual outdoor units and distribute the load by rotating the order of operation of the compressors of the outdoor units.



Back up function

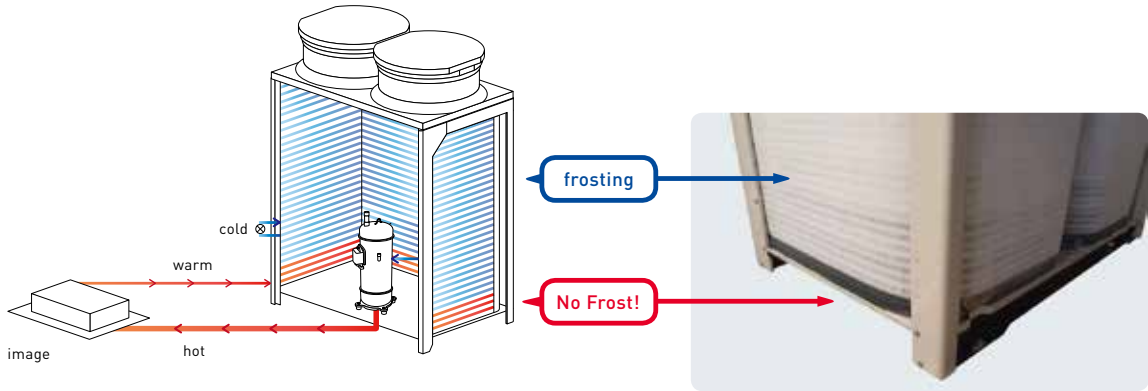
Full introduction of backup operation function. If one outdoor unit should fail, the model can continue to operate using the remaining outdoor units, thereby preventing total system failure.



DEFROSTING

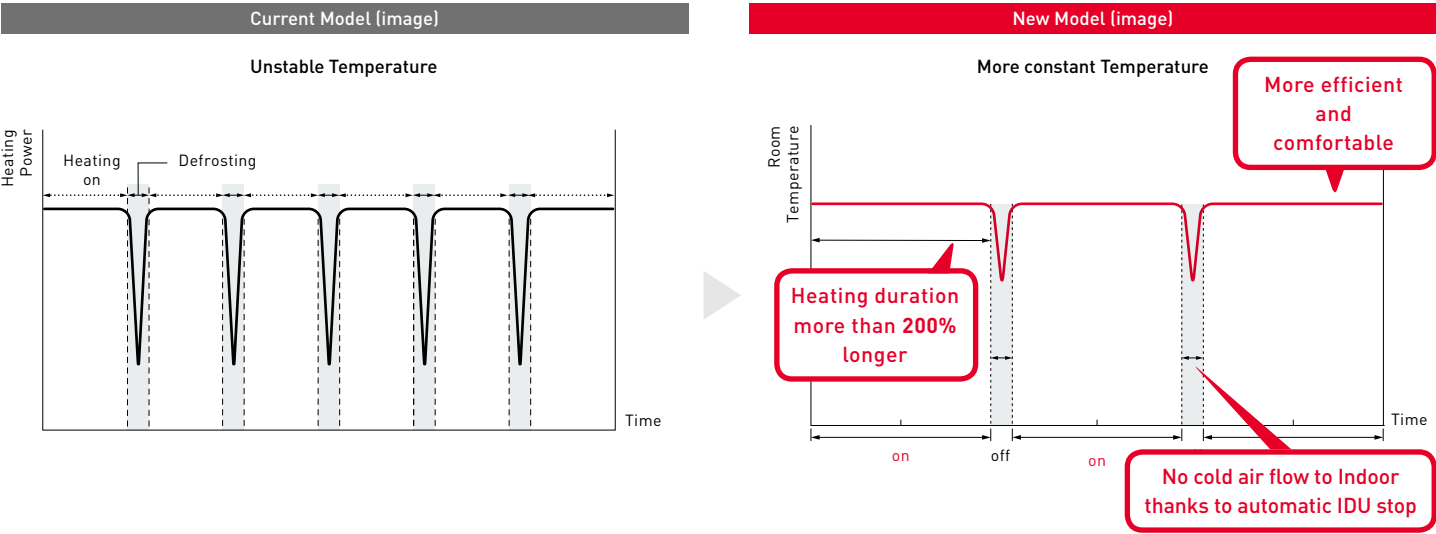
Prevention

Our VRF outdoor unit has “heat exchanger” in the lower part of the heat exchanger which puts down the frost and ice formation in there, by running mid-temperature refrigerant (5-20°C) (before decreasing the pressure).



More efficient defrosting

Thanks to Hitachi’s original sensing function for heat-exchanger status, the system for detecting the frost amount has improved very much, which leads to the greatly efficient defrosting. First, the maximum defrosting interval has been increased by more than 200 %, from 120 min (current) to 250 min (new). It undertakes defrosting more efficiently, rather than unnecessary defrosting every two hours. And also, it leads to the more comfortable indoor environment by keeping more constant room temperature thanks to the longer heating duration.



LOW NOISE OPERATION

Thanks to below 2 design changes

Sound Power Level		FSXNP series					FSXNS series					dB(A)
ODU capacity	HP Class	5	6	8	10	12	8	10	12	14	16	
	Cooling (kW)	14.0	16.0	22.4	28.0	33.5	22.4	28.0	33.5	40.0	45.0	
Sound Power Level (dB(A))	Current model	79.5	79.5	81.5	82.5	84.5	81.5	82.5	84	85.4	85.5	
	New model	75	78	77	82	83	80	82	82	85	85	

-2.5dB(A)
on Average !

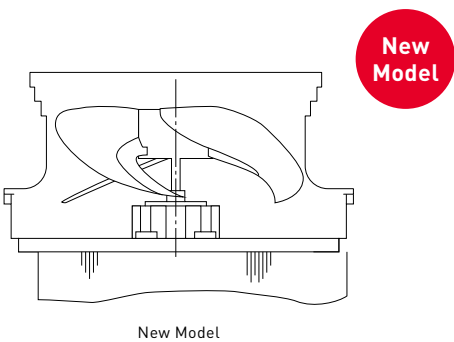
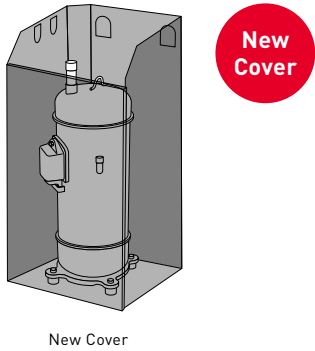
-1.0dB(A)
on Average !

Compressor:

The model is louder than conventional models due to the utilization of a compact high-speed compressor, but it can reduce the level of the sound pressure by up to 2dB(A) due to the utilization of new compressor covers.

Air blower:

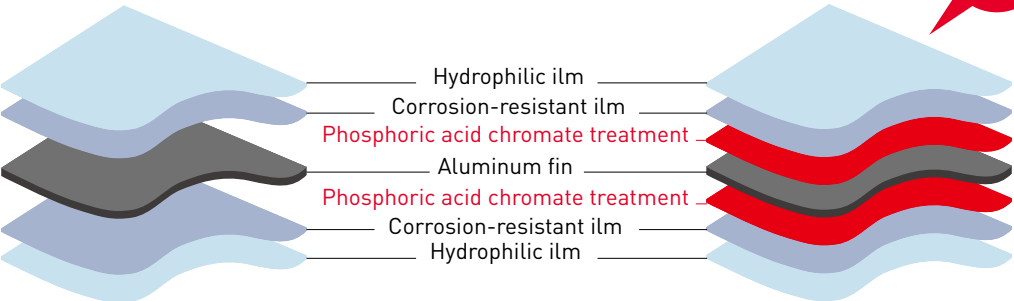
The air blower has a new structure where it is placed above the heat exchanger, meaning that the noise on the reverse side can be suppressed.



CORROSION RESISTANCE

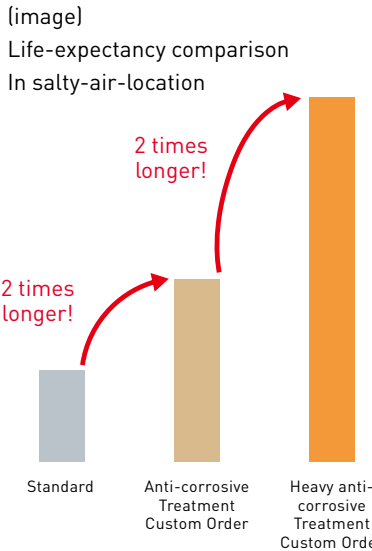
► See “Page 70: Resistance to Salt Damage”

Corrosion-resistance improved Heat Exchanger



Current : 2 Layers protection

New : 3 Layers protection!



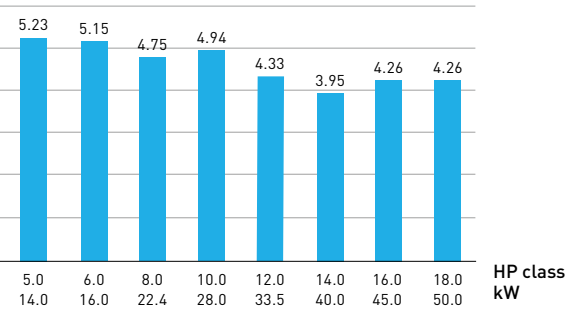
*Considered JRA9002: Criteria and Testing of Corrosion-proof for Refrigeration and Air Conditioning Equipment against Salty Air
*Please consult Hitachi distributors for more details
*Both “Anti-corrosive treatment” and “Heavy anti-corrosive treatment” are by custom order

High Efficiency

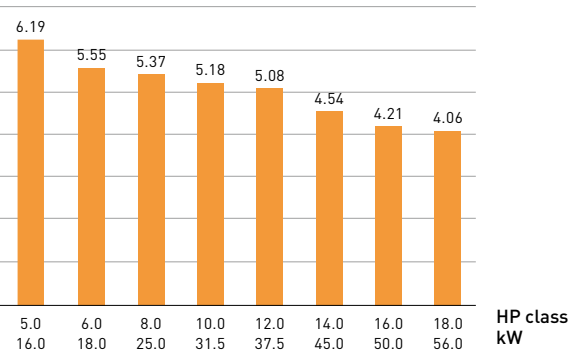
EFFICIENCY RATIO

FSXNP

EER: Energy Efficiency Ratio

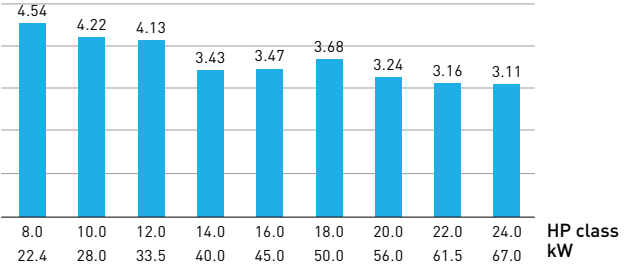


COP: Coefficient of Performance

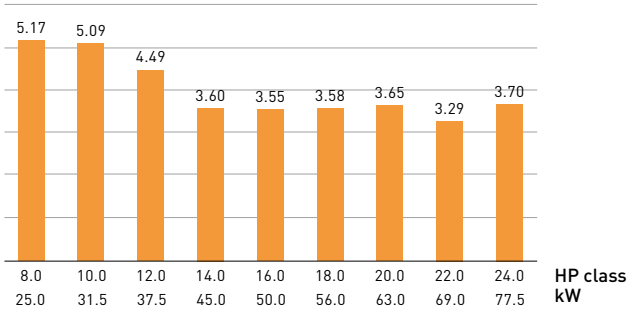


FSXNS

EER: Energy Efficiency Ratio



COP: Coefficient of Performance



NOTES:
1. The graphs above show the EER/COP of single units for the regions except [Oceania] or [400V/50Hz region].
2. The above values indicate the EER/COP per outdoor unit when it is combined with specified indoor units.
3. The specification of EER/COP of each country is different according to the regulation. Please contact to the Sales person for more information.
4. EER = Energy efficiency ratio = Cooling capacity or Heating capacity ÷ Power consumption of an air conditioner
5. COP = Coefficient of performance of an air conditioner = Output kW (cooling capacity) ÷ Input kW (power consumption)

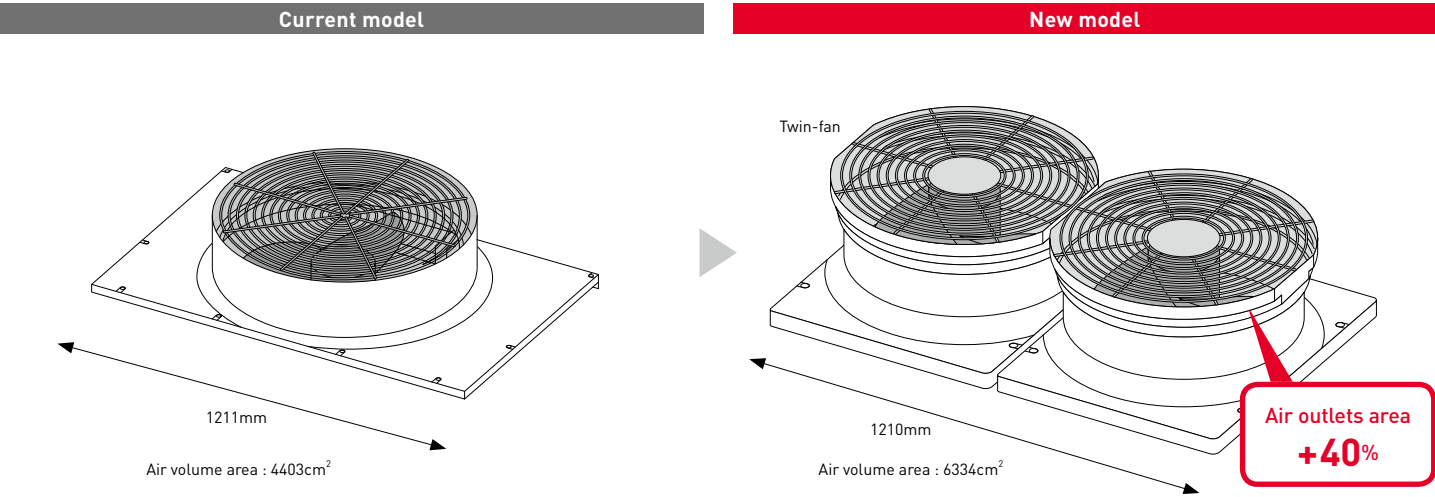
WHAT'S IMPROVED?

- 1) FAN 2) Heat Exchanger 3) Compressor 4) Compressor Control

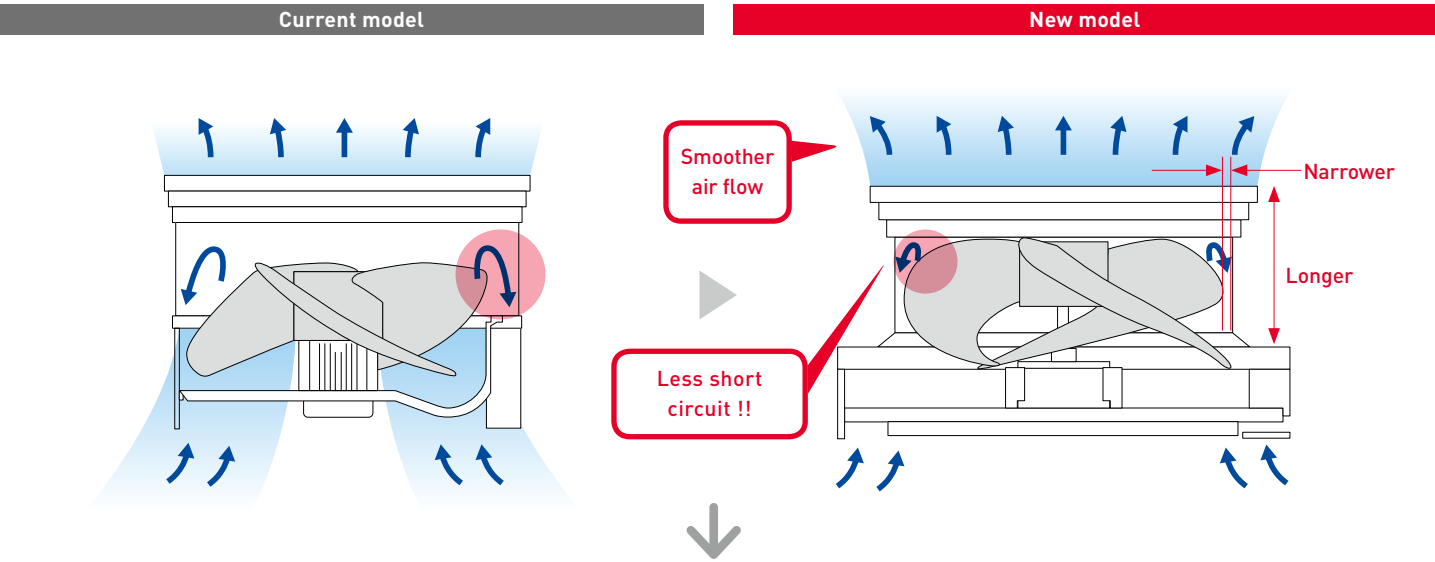


IMPROVED FAN POWER

Expansion of air outlets



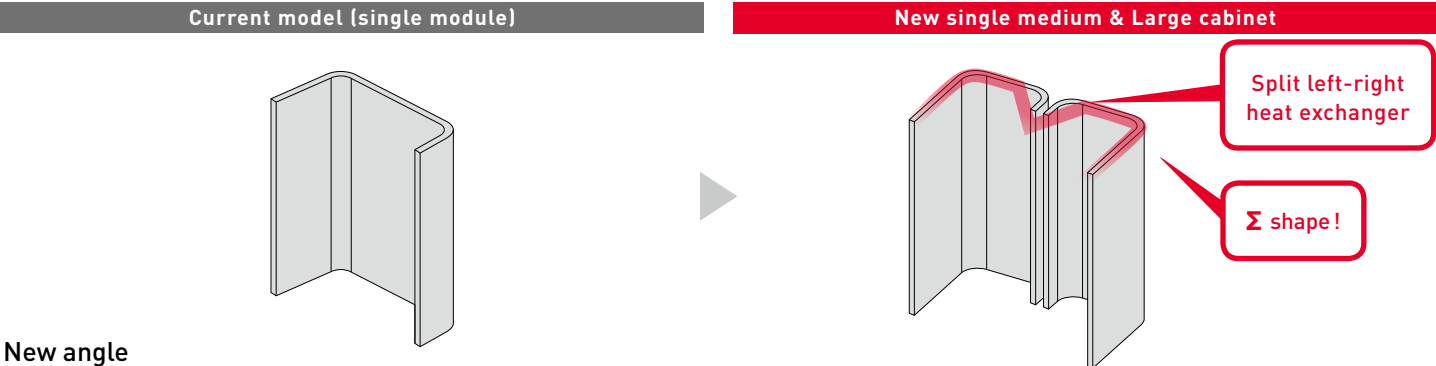
Improvement in bell-mouth



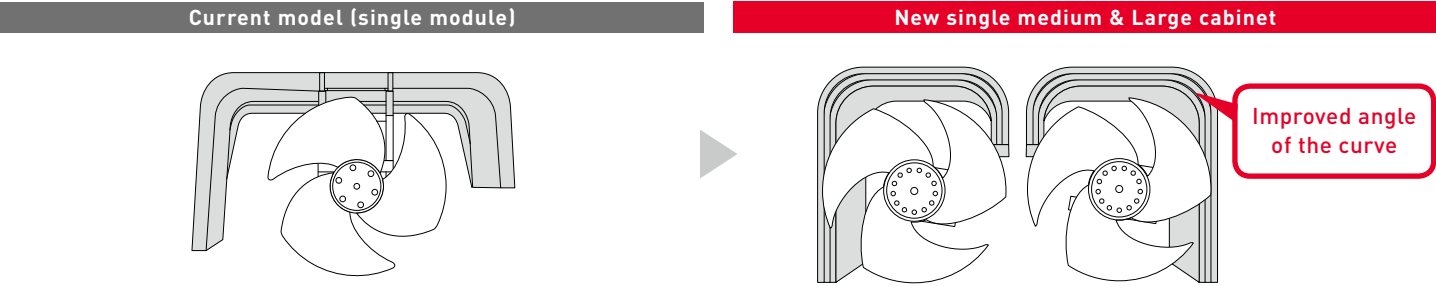
- Improvement of airflow volume by **23%** (single module)
- Energy consumption in the driving shaft has decreased by **20%** on average

IMPROVED HEAT EXCHANGER

New shape

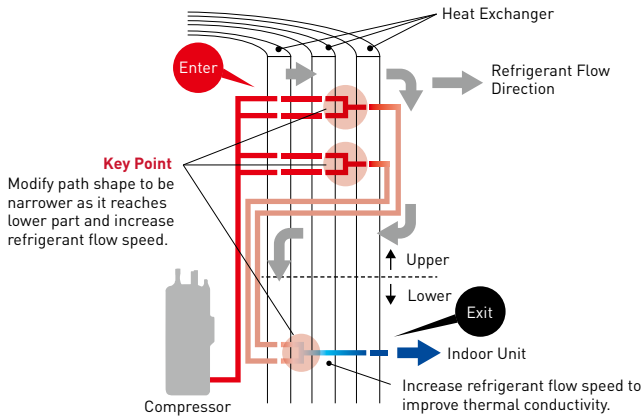


New angle



New path Structure (only in FSXNP series (twin fan))

The model employs a heat exchanger path structure that maximizes heat exchange performance when it is run on low-load operation. The model separates the heat exchanger on the top and bottom, has a narrower flow route toward the lower side of the heat exchanger, raises coolant flow speeds and increases thermal conductivity. As a result, the model achieves improved energy savings by increasing coolant performance.



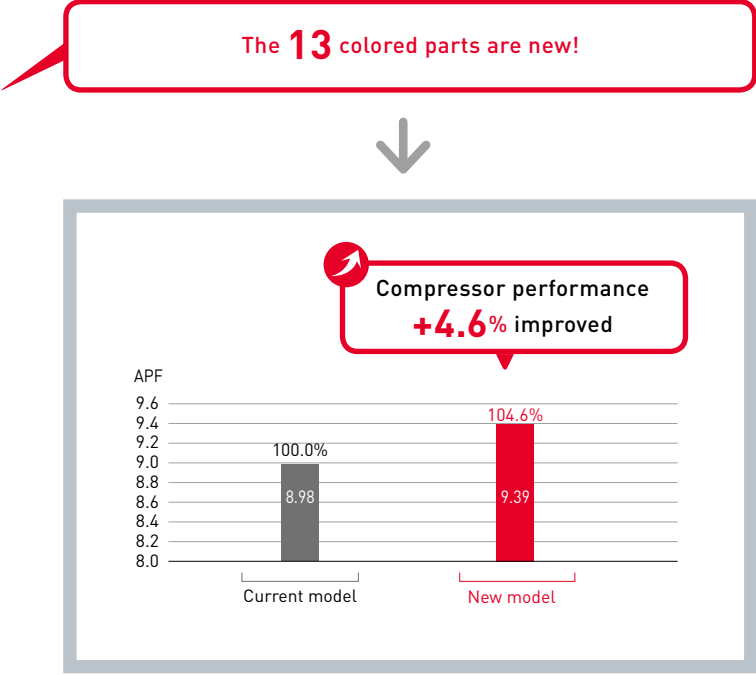
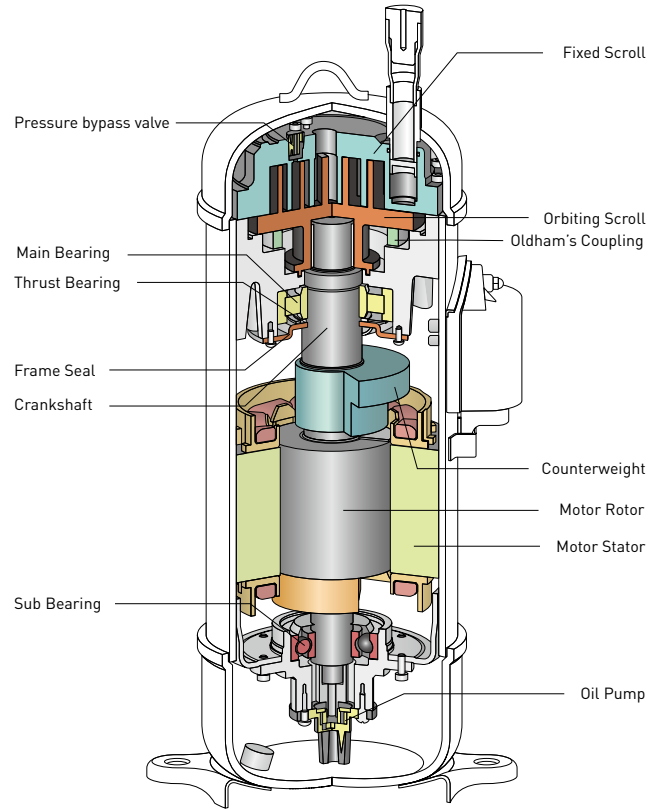
- The heat exchange area has been increased by more than **10%** (single module)
- Greater heat exchange efficiency



IMPROVED COMPRESSOR

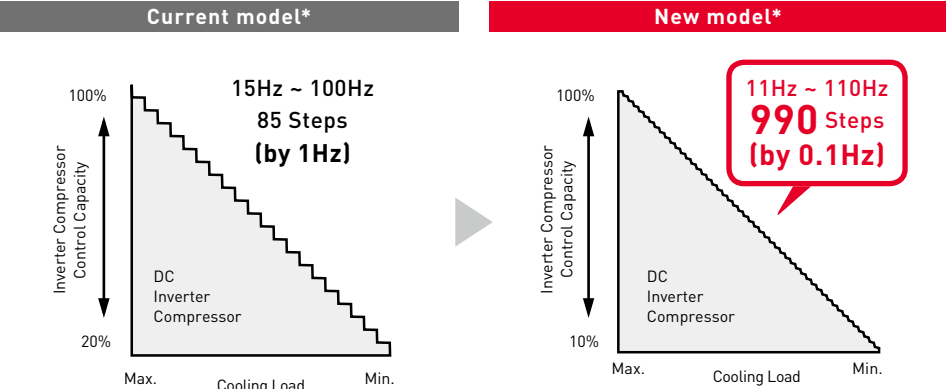
New design compressor

INVERTER



Greater capacity control

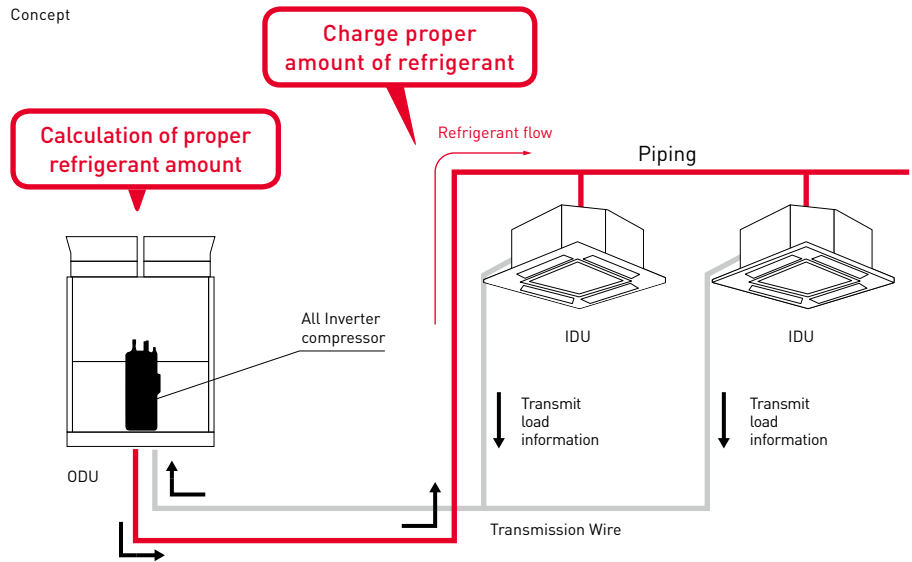
The highly improved performance as well as greater energy saving is achieved by adopting newly developed high efficiency DC inverter compressor, with outstandingly precise control technology of 0.1Hz increments inverter frequency. Another feature is the dramatically extended working range, enabled by expanding the compressor's operating frequency band, both upwards and downwards.



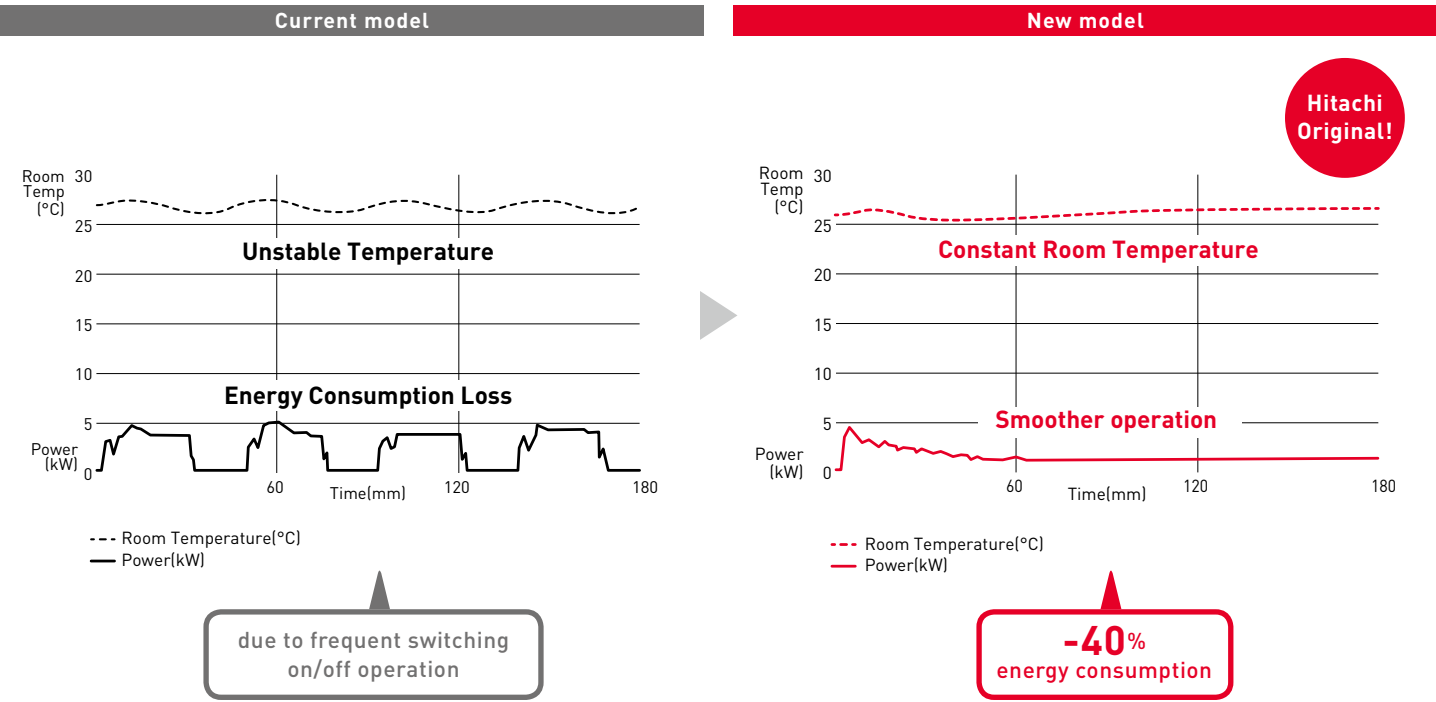
IMPROVED COMPRESSOR CONTROL

Smooth drive

The model calculates the appropriate amount of coolant supplied by the outdoor units on the basis of information about the required load from the individual indoor units. The model employs smooth operation control to control the number of revolutions of the inverter compressor. The model supplies the appropriate amount of coolant to the indoor units according to the required load. The model increases energy-saving efficiency by operating smoothly while controlling the switching on and off of the compressor at low-load operation.



Actual example of the new compressor control



Outdoor Unit/CH-Box
Specifications
Dimensions
Service space

NOTES:

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°C DB (80°F DB) / 19.0°C WB (66.2°F WB)	Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 35°C DB (95°F DB)	Outdoor Air Inlet Temperature: 7°C DB (45°F DB) / 6°C WB (43°F WB)

Piping Length: 7.5 Meters
Piping Lift: 0 Meter

The sound pressure is based on the following conditions.
The above data is based on the cooling mode. In case of heating mode, the sound pressure level increases by approximately 1-2 dB.
The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

Except for the specified combination in the table [26-54HP class 73.0-150.0kW], there is no other combination of the base unit.

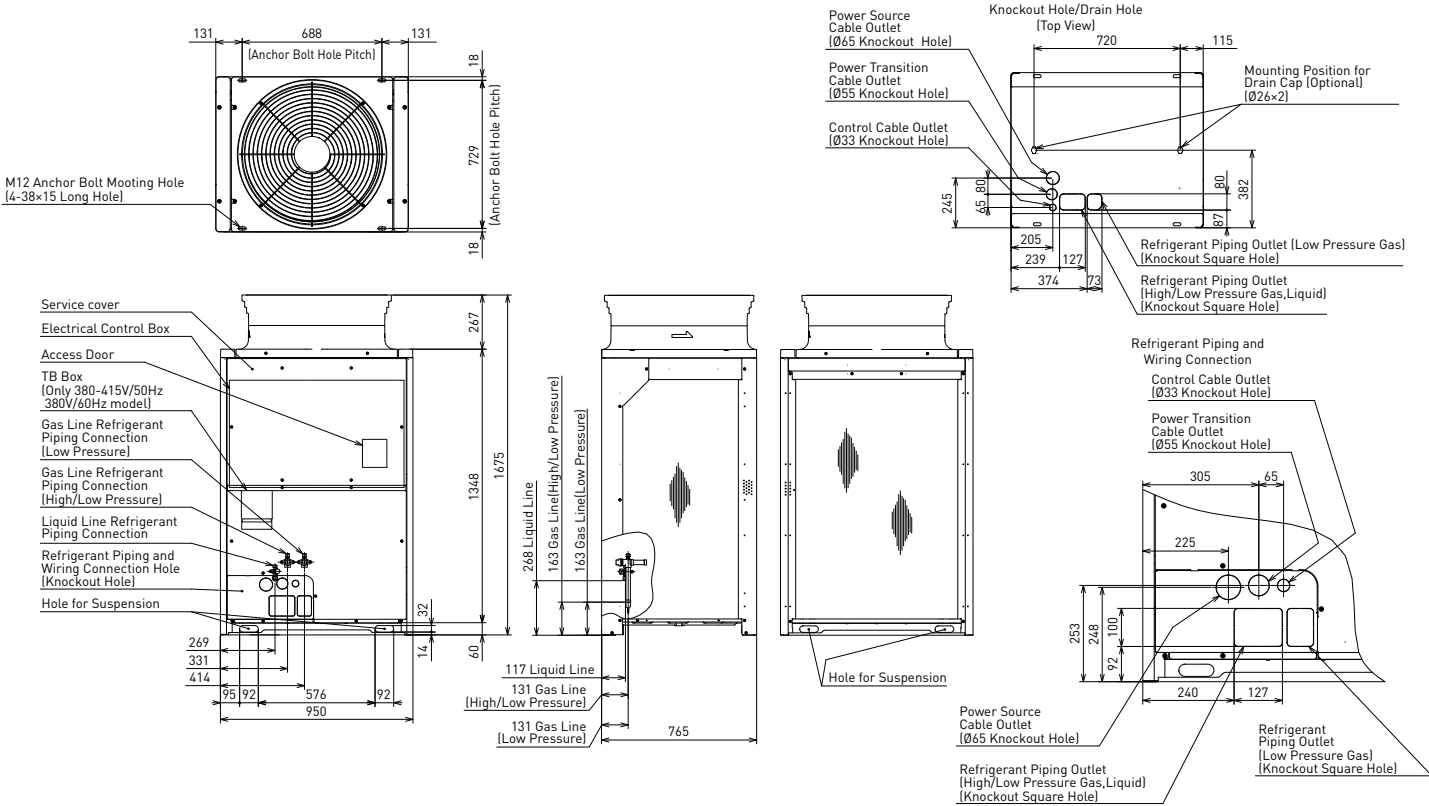
The width of outer dimension, it is the value when each distance between the base outdoor units is specified to 20mm.

SPECIFICATIONS

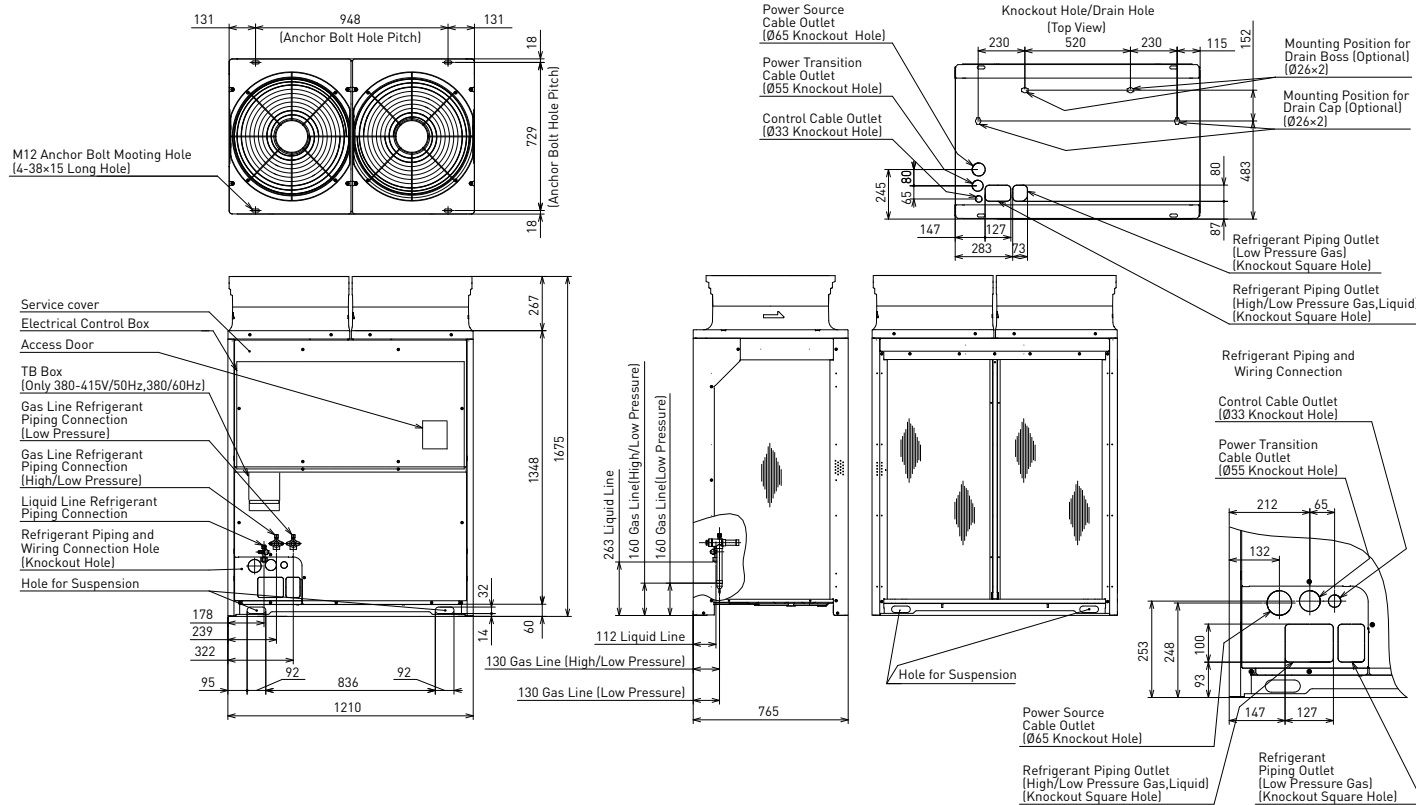
										
HP class				5	6	8	10	12	14	
Model				RAS-5FSXNP	RAS-6FSXNP	RAS-8FSXNP	RAS-10FSXNP	RAS-12FSXNP	RAS-14FSXNP	
Power Supply				AC 3φ, 400V/50Hz, 380-415V/50Hz, 380V/60Hz, 220V/60Hz						
Nominal Cooling Capacity				kW	14.0	16.0	22.4	28.0	33.5	40.0
Nominal Heating Capacity				kW	16.0	18.0	25.0	31.5	37.5	45.0
	Cabinet	Color	Munsell Code		Natural Gray [1.0Y 8.5/0.5]					
		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 Level	Sound Power Level		dB[A]	75	78	77	82	83	85
		Sound Pressure Level		dB[A]	54	56	55	59	60	62
	Weight	Net Weight	380-415V/50Hz, 380V/60Hz	kg	195	195	258	262	263	273
			220V/60Hz	kg	190	190	253	257	258	268
	Gross Weight	380-415V/50Hz, 380V/60Hz	kg	211	211	276	280	281	291	
		220V/60Hz	kg	206	206	271	275	276	286	
	Refrigerant	Type		R410A						
		Flow Control		Micro-Computer Control Expansion Valve						
		Charge (before Shipment)	kg	4.7	5.0	8.5	8.5	9.3	9.3	
	Compressor	Type		Hermetic [Scroll]						
		Model		AA50PHD	AA50PHD	AA50PHD	DB65PHD	DC80PHD	DC80PHD	
		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	Type		FVC68D						
		Charge	L/Unit	6.0	6.0	6.0	6.0	6.0	6.9	
				Multi-Pass Cross-Finned Tube						
	Condenser Fan	Type		Propeller 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 [in.]	φ9.52 [3/8]	φ9.52 [3/8]	φ9.52 [3/8]	φ9.52 [3/8]	φ12.7 [1/2]	φ12.7 [1/2]
		Gas Line	Low Pressure	mm [in.]	φ15.88 [5/8]	φ19.05 [3/4]	φ19.05 [3/4]	φ22.2 [7/8]	φ25.4 [1]	φ25.4 [1]
			High/Low Pressure	mm [in.]	φ12.7 [1/2]	φ15.88 [5/8]	φ15.88 [5/8]	φ19.05 [3/4]	φ22.2 [7/8]	φ22.2 [7/8]
	Heat Recovery System (3 Pipes)									
	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
		Measurement		m³	1.5	1.5	1.9	1.9	1.9	1.9

DIMENSIONS

RAS-5FSXNP AND RAS-6FSXNP



RAS-8FSXNP, RAS10FSXNP, RAS-12FSXNP AND RAS-14FSXNP



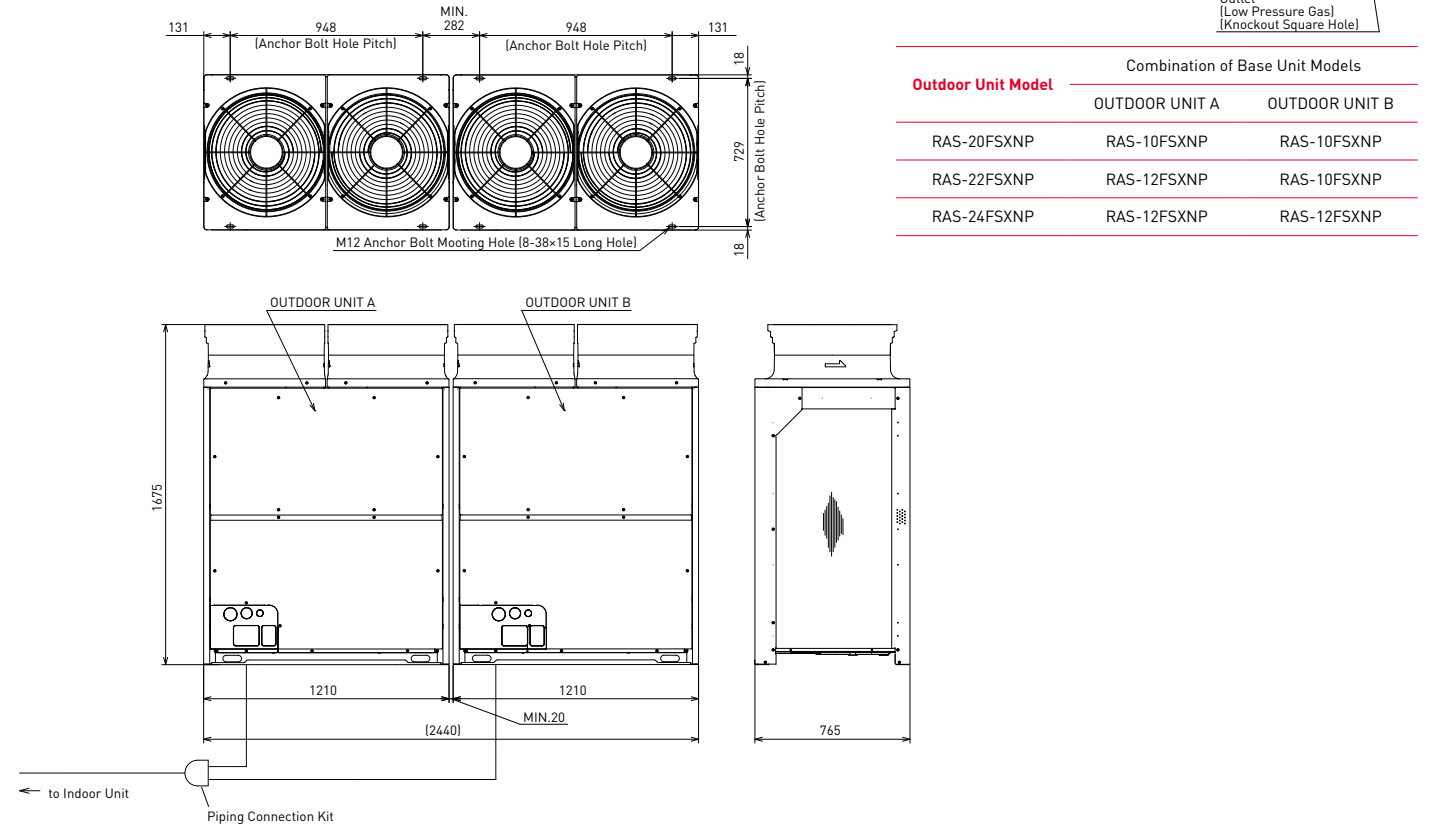
SPECIFICATIONS

								
HP class				16	18	20	22	24
Model				RAS-16FSXNP	RAS-18FSXNP	RAS-20FSXNP	RAS-22FSXNP	RAS-24FSXNP
Combination of Base Unit				-	-	RAS-10FSXNP RAS-10FSXNP	RAS-10FSXNP RAS-12FSXNP	RAS-12FSXNP RAS-12FSXNP
Power Supply				AC 3φ, 400V/50Hz, 380-415V/50Hz, 380V/60Hz, 220V/60Hz				
Nominal Cooling Capacity			kW	45.0	50.0	56.0	61.5	67.0
Nominal Heating Capacity			kW	50.0	56.0	63.0	69.0	77.5
 Cabinet	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)				
	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 Level	Sound Power Level		dB[A]	85	86	85	86	86
	Sound Pressure Level		dB[A]	65	65	62	62.5	63
 Weight	Net Weight	380-415V/50Hz, 380V/60Hz	kg	350	365	262 + 262	262 + 263	263 + 263
		220V/60Hz	kg	345	360	257 + 257	257 + 258	258 + 258
	Gross Weight	380-415V/50Hz, 380V/60Hz	kg	370	385	280 + 280	280 + 281	281 + 281
		220V/60Hz	kg	365	380	275 + 275	275 + 276	276 + 276
 Refrigerant	Type			R410A				
	Flow Control			Micro-Computer Control Expansion Valve				
	Charge [before Shipment]		kg	10.0	10.6	17.0	17.8	18.6
 Compressor	Type			Hermetic (Scroll)				
	Model			AA50PHD + AA50PHD	DC80PHD + DC80PHD	DB65PHD + DB65PHD	DB65PHD + DC80PHD	DC80PHD + DC80PHD
	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
 Refrigeration Oil	Type			FVC68D				
	Charge		L/Unit	7.9	7.9	12.0	12.0	12.0
 Heat Exchanger				Multi-Pass Cross-Finned Tube				
 Condenser Fan	Type			Propeller Fan				
	Quantity			2	2	4	4	4
	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] × 2 + 0.26 [8] × 2	0.26 [8] × 2 + 0.26 [8] × 2	0.26 [8] × 2 + 0.26 [8] × 2
 Main Refrigerant Piping  Heat Recovery System (3 Pipes)	Liquid Line		mm [in.]	φ12.7 [1/2]	φ15.88 [5/8]	φ15.88 [5/8]	φ15.88 [5/8]	φ15.88 [5/8]
	Gas Line	Low Pressure	mm [in.]	φ28.58 [7/8]	φ28.58 [7/8]	φ28.58 [7/8]	φ28.58 [7/8]	φ28.58 [7/8]
		High/Low Pressure	mm [in.]	φ22.2 [7/8]	φ22.2 [7/8]	φ22.2 [7/8]	φ25.4 [1]	φ25.4 [1]
 Package	Dimensions		mm	1,800 × 1,680 × 810	1,800 × 1,680 × 810	-	-	-
	Measurement		m³	2.4	2.4	-	-	-

DIMENSIONS

[illegible]

RAS-20FSXNP, RAS-22FSXNP AND RAS-24FSXNP

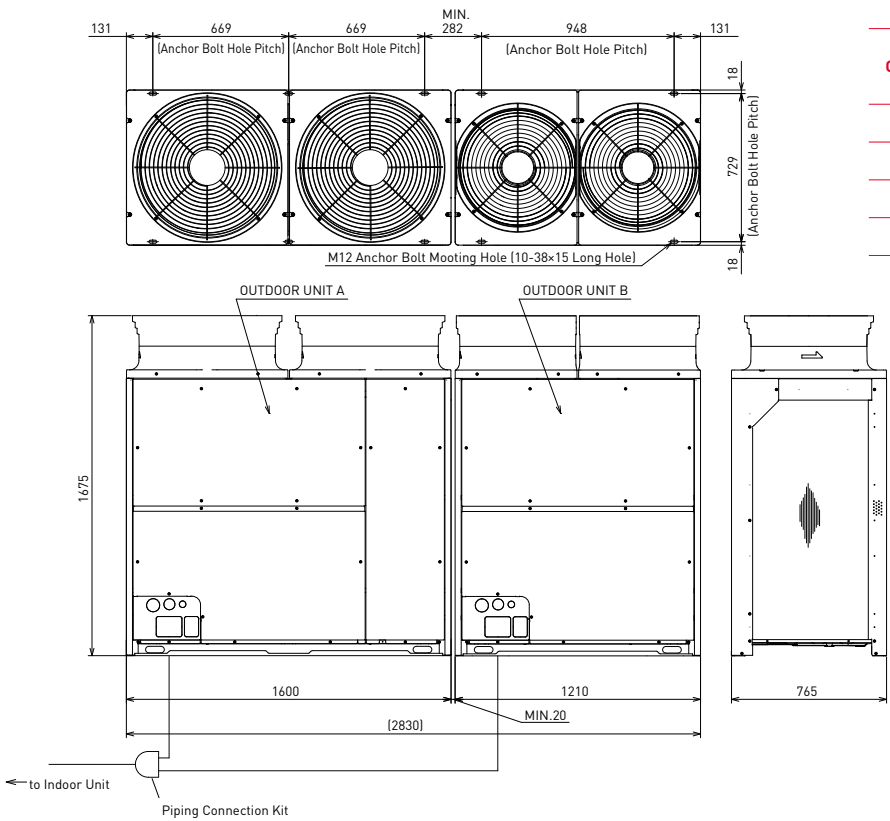


SPECIFICATIONS

											
HP class				26	28	30	32	34	36		
Model				RAS-26FSXNP	RAS-28FSXNP	RAS-30FSXNP	RAS-32FSXNP	RAS-34FSXNP	RAS-36FSXNP		
Combination of Base Unit				RAS-10FSXNP RAS-16FSXNP	RAS-12FSXNP RAS-16FSXNP	RAS-12FSXNP RAS-18FSXNP	RAS-14FSXNP RAS-18FSXNP	RAS-16FSXNP RAS-18FSXNP	RAS-18FSXNP RAS-18FSXNP		
Power Supply				AC 3φ, 400V/50Hz, 380-415V/50Hz, 380V/60Hz, 220V/60Hz							
Nominal Cooling Capacity			kW	73.0	77.5	85.0	90.0	95.0	100.0		
Nominal Heating Capacity			kW	82.5	90.0	95.0	100.0	106.0	112.0		
	Cabinet	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)						
		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 Level	Sound Power Level		dB[A]	87	87	88	89	89	89	
		Sound Pressure Level		dB[A]	66	66	66	67	68	68	
	Weight	Net Weight	380-415V/50Hz, 380V/60Hz	kg	262 + 350	263 + 350	263 + 365	273 + 365	350 + 365	365 + 365	
			220V/60Hz	kg	257 + 345	258 + 345	258 + 360	268 + 360	345 + 360	360 + 360	
	Gross Weight	380-415V/50Hz, 380V/60Hz	kg	280 + 370	281 + 370	281 + 385	291 + 385	370 + 385	385 + 385		
		220V/60Hz	kg	275 + 365	276 + 365	276 + 380	286 + 380	365 + 380	380 + 380		
	Refrigerant	Type		R410A							
		Flow Control		Micro-Computer Control Expansion Valve							
		Charge (before Shipment)	kg	18.5	19.3	19.9	19.9	20.6	21.2		
	Compressor	Type		Hermetic (Scroll)							
		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	Type		FVC68D							
		Charge	L/Unit	13.9	13.9	13.9	14.8	15.8	15.8		
				Multi-Pass Cross-Finned Tube							
	Condenser Fan	Type		Propeller Fan							
		Quantity		4	4	4	4	4	4		
		Air Flow Rate	m³/min.	219 + 326	219 + 326	219 + 362	243 + 362	326 + 362	362 × 2		
		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 Heat Recovery System (3 Pipes)	Liquid Line		mm (in.)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	
		Gas Line	Low Pressure	mm (in.)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ38.1 (1-1/2)	
			High/Low Pressure	mm (in.)	φ25.4 (1)	φ28.58 (1-1/8)	φ28.58 (1-1/8)	φ28.58 (1-1/8)	φ28.58 (1-1/8)	φ28.58 (1-1/8)	

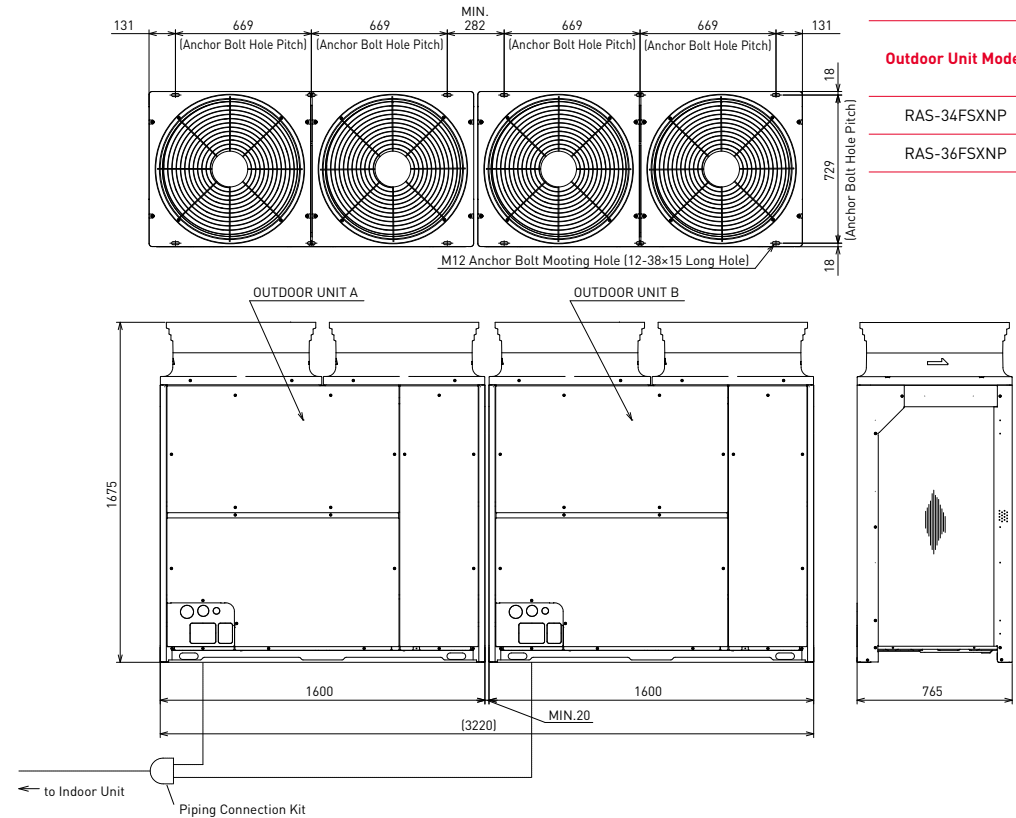
DIMENSIONS

RAS-26FSXNP, RAS-28FSXNP, RAS-30FSXNP AND RAS-32FSXNP



Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
RAS-26FSXNP	RAS-16FSXNP	RAS-10FSXNP
RAS-28FSXNP	RAS-16FSXNP	RAS-12FSXNP
RAS-30FSXNP	RAS-18FSXNP	RAS-12FSXNP
RAS-32FSXNP	RAS-18FSXNP	RAS-14FSXNP

RAS-34FSXNP AND RAS-36FSXNP

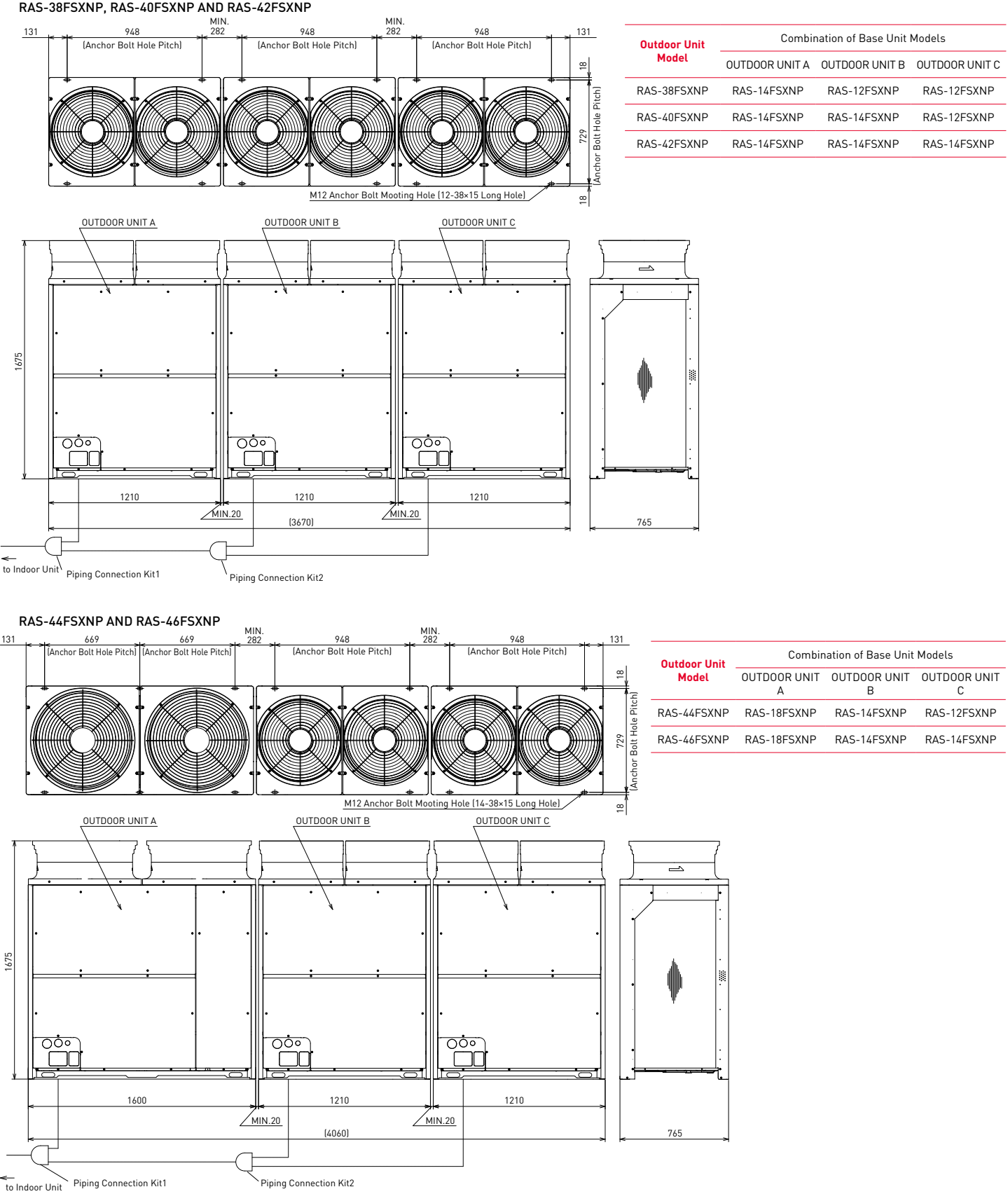


Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
RAS-34FSXNP	RAS-18FSXNP	RAS-16FSXNP
RAS-36FSXNP	RAS-18FSXNP	RAS-18FSXNP

SPECIFICATIONS

									
HP class				38	40	42	44	46	
Model				RAS-38FSXNP	RAS-40FSXNP	RAS-42FSXNP	RAS-44FSXNP	RAS-46FSXNP	
Combination of Base Unit				RAS-12FSXNP RAS-12FSXNP RAS-14FSXNP	RAS-12FSXNP RAS-14FSXNP RAS-14FSXNP	RAS-14FSXNP RAS-14FSXNP RAS-14FSXNP	RAS-12FSXNP RAS-14FSXNP RAS-18FSXNP	RAS-14FSXNP RAS-14FSXNP RAS-18FSXNP	
Power Supply				AC 3Φ, 400V/50Hz, 380-415V/50Hz, 380V/60Hz, 220V/60Hz					
Nominal Cooling Capacity			kW	106.0	112.0	118.0	122.0	128.0	
Nominal Heating Capacity			kW	118.0	125.0	132.0	140.0	145.0	
 Cabinet	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)					
	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 Level	Sound Power Level		dB(A)	89	89	90	90	90	
	Sound Pressure Level		dB(A)	65.5	66	67	67.5	68	
 Weight	Net Weight	380-415V/50Hz, 380V/60Hz	kg	263 + 263 + 273	263 + 273 + 273	273 + 273 + 273	263 + 273 + 365	273 + 273 + 365	
		220V/60Hz	kg	258 + 258 + 268	258 + 268 + 268	268 + 268 + 268	258 + 268 + 360	268 + 268 + 360	
	Gross Weight	380-415V/50Hz, 380V/60Hz	kg	281 + 281 + 291	281 + 291 + 291	291 + 291 + 291	281 + 291 + 385	291 + 291 + 385	
		220V/60Hz	kg	276 + 276 + 286	276 + 286 + 286	286 + 286 + 286	276 + 286 + 380	286 + 286 + 380	
 Refrigerant	Type			R410A					
	Flow Control			Micro-Computer Control Expansion Valve					
	Charge (before Shipment)		kg	27.9	27.9	27.9	29.2	30.5	
 Compressor	Type			Hermetic (Scroll)					
	Model			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	Type			FVC68D					
	Charge		L/Unit	18.9	19.8	20.7	20.8	21.7	
 Heat Exchanger				Multi-Pass Cross-Finned Tube					
 Condenser Fan	Type			Propeller Fan					
	Quantity			6	6	6	6	6	
	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) × 2 + 0.34 (8) × 2	0.34 (8) × 2 + 0.34 (8) × 2 + 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 (in.)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	
	Gas Line	Low Pressure	mm (in.)	φ38.1 (1-1/2)	φ38.1 (1-1/2)	φ38.1 (1-1/2)	φ38.1 (1-1/2)	φ38.1 (1-1/2)	
		High/Low Pressure	mm (in.)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	
 Heat Recovery System (3 Pipes)									

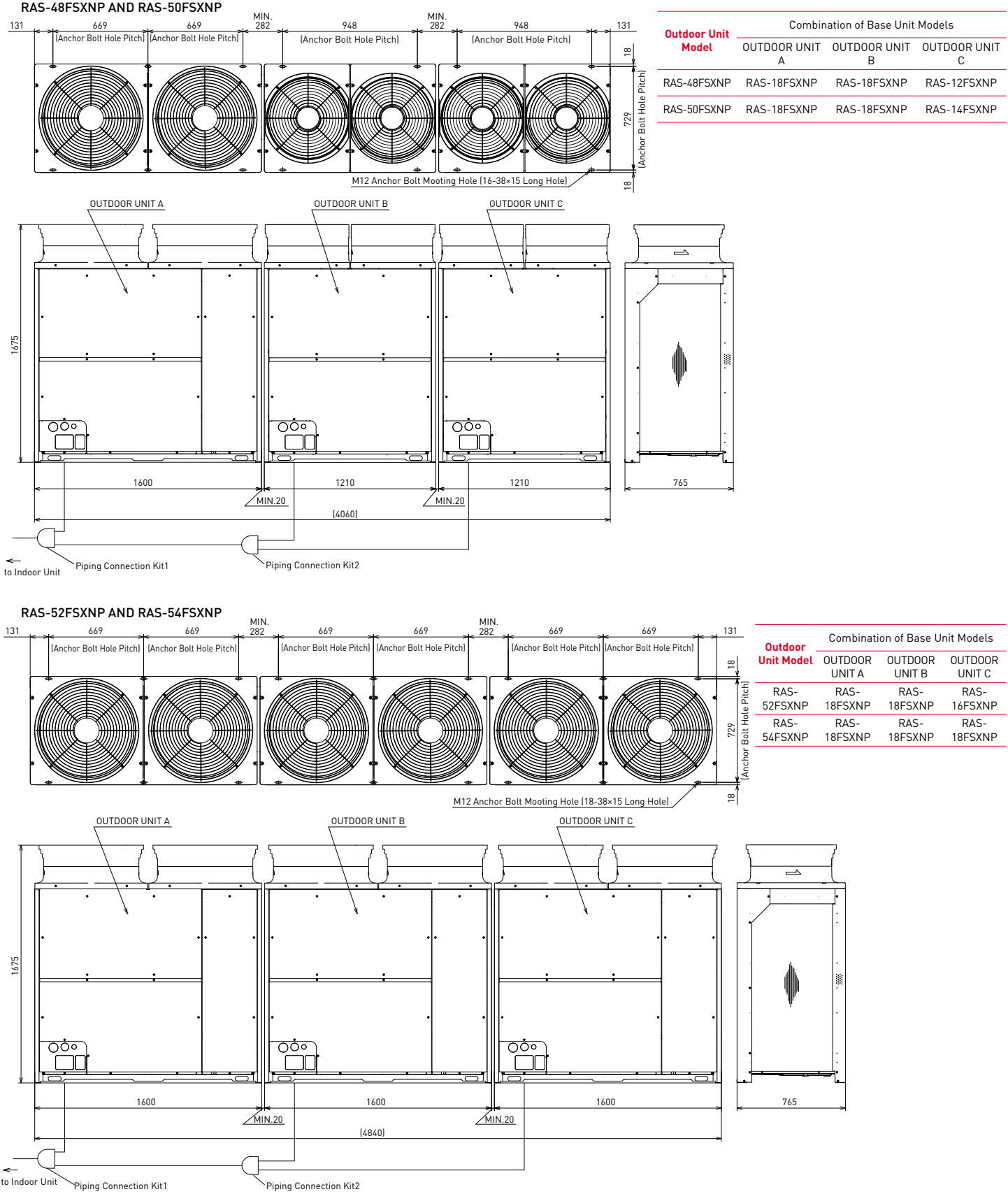
DIMENSIONS



SPECIFICATIONS

			
HP class	48		
Model	RAS-48FSXNP		
Combination of Base Unit	RAS-12FSXNP, RAS-18FSXNP, RAS-18FSXNP		
Power Supply	AC 3φ, 400V/50Hz, 380-415V/50Hz, 380V/60Hz, 220V/60Hz		
Nominal Cooling Capacity	kW	136.0	
Nominal Heating Capacity	kW	150.0	
 Cabinet	Color	Munsell Code	
	Outer Dimensions	H*W*D	mm
 Sound Level	Sound Power Level	dB(A)	
	Sound Pressure Level	dB(A)	
 Weight	Net Weight	380-415V/50Hz, 380V/60Hz	kg
		220V/60Hz	kg
	Gross Weight	380-415V/50Hz, 380V/60Hz	kg
		220V/60Hz	kg
 Refrigerant	Type	R410A	
	Flow Control	Micro-Computer Control Expansion Valve	
	Charge (before Shipment)	kg	30.5
 Compressor	Type	Hermetic (Scroll)	
	Model	DC80PHD + DC80PHD + DC80PHD + DC80PHD + DC80PHD	
	Quantity	5	
	Motor Output	Pole	kW
 Refrigeration Oil	Type	FVC68D	
	Charge	L/Unit	21.8
 Heat Exchanger			
 Condenser Fan	Type	Propeller Fan	
	Quantity	6	
	Air Flow Rate	m³/min.	219 + 362 × 2
	Motor Output	Pole	kW
 Main Refrigerant Piping	Liquid Line	mm (in.)	φ19.05 (3/4)
	Gas Line	Low Pressure	mm (in.)
	Heat Recovery System (3 Pipes)	High/Low Pressure	mm (in.)

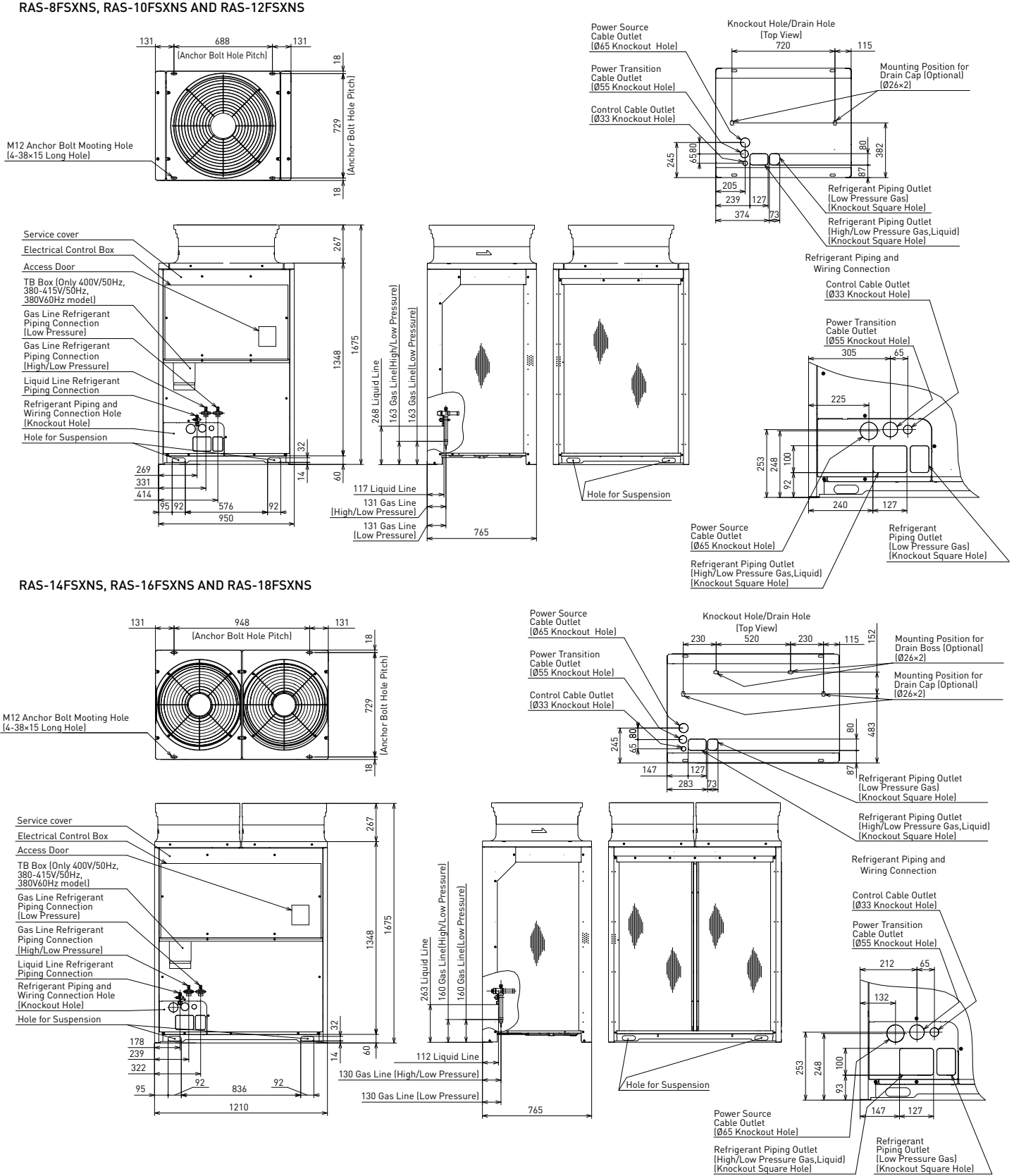
DIMENSIONS



SPECIFICATIONS

									
HP class				8	10	12	14	16	18
Model				RAS-8FSXNS	RAS-10FSXNS	RAS-12FSXNS	RAS-14FSXNS	RAS-16FSXNS	RAS-18FSXNS
Power Supply				AC 3φ, 400V/50Hz, 380-415V/50Hz, 380V/60Hz, 220V/60Hz					
Nominal Cooling Capacity			kW	22.4	28.0	33.5	40.0	45.0	50.0
Nominal Heating Capacity			kW	25.0	31.5	37.5	45.0	50.0	56.0
 Cabinet	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)					
	Outer Dimensions	H*W*D	mm	1,675 × 950 × 765	1,675 × 950 × 765	1,675 × 950 × 765	1,675 × 1,210 × 765	1,675 × 1,210 × 765	1,675 × 1,210 × 765
 Sound Level	Sound Power Level		dB(A)	80	82	82	85	85	86
	Sound Pressure Level		dB(A)	58	60	59	63	63	65
 Weight	Net Weight	380-415V/50Hz, 380V/60Hz	kg	195	195	215	271	314	315
		220V/60Hz	kg	190	190	210	266	309	310
	Gross Weight	380-415V/50Hz, 380V/60Hz	kg	211	211	231	289	332	333
		220V/60Hz	kg	206	206	226	284	327	328
 Refrigerant	Type			R410A					
	Flow Control			Micro-Computer Control Expansion Valve					
	Charge (before Shipment)		kg	5.0	5.0	7.2	8.9	9.9	10.7
 Compressor	Type			Hermetic (Scroll)					
	Model			AA50PHD	AA50PHD	DC80PHD	DC80PHD	AA50PHD + AA50PHD	AA50PHD + AA50PHD
	Quantity			1	1	1	1	2	2
	Motor Output	Pole	kW	3.3 [6]	4.3 [6]	5.4 [6]	8.0 [6]	4.5 [6] × 2	5.0 [6] × 2
 Refrigeration Oil	Type			FVC68D					
	Charge		L/Unit	6.0	6.0	6.0	6.9	7.9	7.9
 Heat Exchanger				Multi-Pass Cross-Finned Tube					
 Condenser Fan	Type			Propeller Fan					
	Quantity			1	1	1	2	2	2
	Air Flow Rate		m³/min.	165	170	190	239	256	256
	Motor Output	Pole	kW	0.26 [8]	0.28 [8]	0.42 [8]	0.33 [8] × 2	0.39 [8] × 2	0.39 [8] × 2
 Main Refrigerant Piping  Heat Recovery System (3 Pipes)	Liquid Line		mm (in.)	φ9.52 [3/8]	φ9.52 [3/8]	φ12.7 [1/2]	φ12.7 [1/2]	φ12.7 [1/2]	φ15.88 [5/8]
	Gas Line	Low Pressure	mm (in.)	φ19.05 [3/4]	φ22.2 [7/8]	φ25.4 [1]	φ25.4 [1]	φ28.58 [1-1/8]	φ28.58 [1-1/8]
		High/Low Pressure	mm (in.)	φ15.88 [5/8]	φ19.05 [3/4]	φ22.2 [7/8]	φ22.2 [7/8]	φ22.2 [7/8]	φ22.2 [7/8]
 Package	Dimensions		mm	1,800 × 1,030 × 810	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
	Measurement		m³	1.5	1.5	1.5	1.9	1.9	1.9

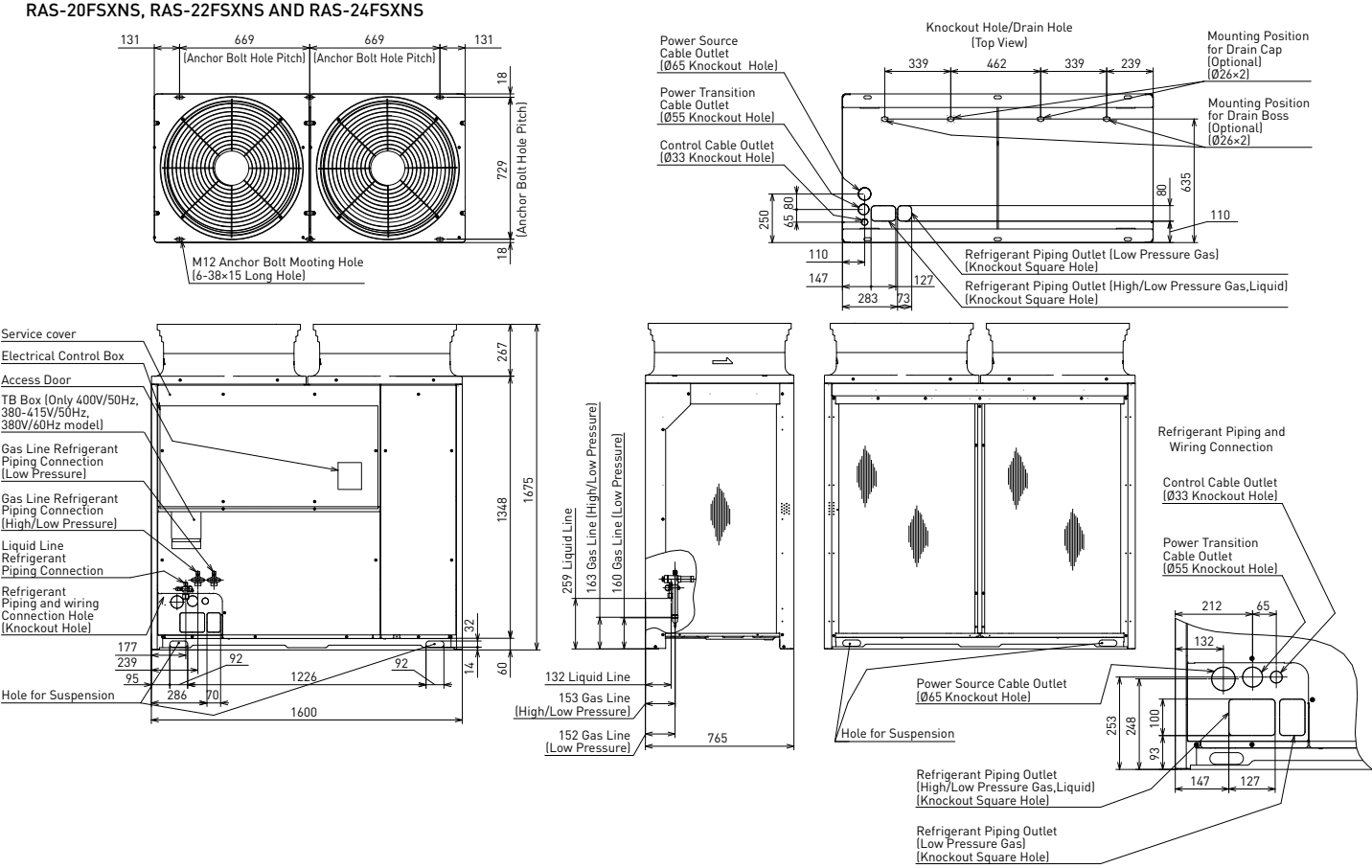
DIMENSIONS



SPECIFICATIONS

						
HP class				20	22	24
Model				RAS-20FSXNS	RAS-22FSXNS	RAS-24FSXNS
Power Supply				AC 3φ, 400V/50Hz, 380-415V/50Hz, 380V/60Hz, 220V/60Hz		
Nominal Cooling Capacity			kW	56.0	61.5	67.0
Nominal Heating Capacity			kW	63.0	69.0	77.5
 Cabinet	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)		
	Outer Dimensions	H*W*D	mm	1,675 × 1,600 × 765	1,675 × 1,600 × 765	1,675 × 1,600 × 765
 Sound Level	Sound Power Level		dB(A)	86	84	86
	Sound Pressure Level		dB(A)	65	64	66
 Weight	Net Weight	380-415V/50Hz, 380V/60Hz	kg	355	369	370
		220V/60Hz	kg	350	364	365
	Gross Weight	380-415V/50Hz, 380V/60Hz	kg	375	389	390
		220V/60Hz	kg	370	384	385
 Refrigerant	Type			R410A		
	Flow Control			Micro-Computer Control Expansion Valve		
	Charge (before Shipment)		kg	11.3	11.3	11.6
 Compressor	Type			Hermetic (Scroll)		
	Model			AA50PHD + AA50PHD	DC80PHD + DC80PHD	DC80PHD + DC80PHD
	Quantity			2	2	2
	Motor Output	Pole	kW	5.5 (6) × 2	6.7 (6) × 2	7.1 (6) × 2
 Refrigeration Oil	Type			FVC68D		
	Charge		L/Unit	8.4	8.4	8.4
 Heat Exchanger				Multi-Pass Cross-Finned Tube		
 Condenser Fan	Type			Propeller Fan		
	Quantity			2	2	2
	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 Heat Recovery System (3 Pipes)	Liquid Line		mm (in.)	φ15.88 (5/8)	φ15.88 (5/8)	φ15.88 (5/8)
	Gas Line	Low Pressure	mm (in.)	φ28.58 (1-1/8)	φ28.58 (1-1/8)	φ28.58 (1-1/8)
		High/Low Pressure	mm (in.)	φ22.2 (7/8)	φ25.4 (1)	φ25.4 (1)
 Package	Dimensions		mm	1,800 × 1,680 × 810	1,800 × 1,680 × 810	1,800 × 1,680 × 810
	Measurement		m³	2.4	2.4	2.4

DIMENSIONS

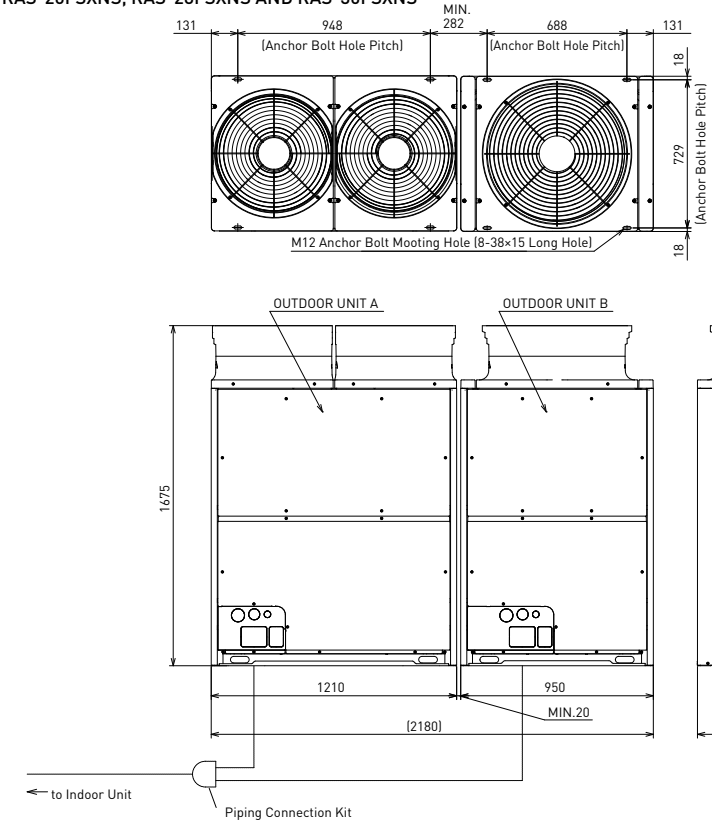


SPECIFICATIONS

									
HP class				26	28	30	32	34	36
Model				RAS-26FSXNS	RAS-28FSXNS	RAS-30FSXNS	RAS-32FSXNS	RAS-34FSXNS	RAS-36FSXNS
Combination of Base Unit				RAS-12FSXNS RAS-14FSXNS	RAS-12FSXNS RAS-16FSXNS	RAS-12FSXNS RAS-18FSXNS	RAS-14FSXNS RAS-18FSXNS	RAS-16FSXNS RAS-18FSXNS	RAS-18FSXNS RAS-18FSXNS
Power Supply				AC 3φ, 400V/50Hz, 380-415V/50Hz, 380V/60Hz, 220V/60Hz					
Nominal Cooling Capacity			kW	73.0	77.5	85.0	90.0	95.0	100.0
Nominal Heating Capacity			kW	82.5	90.0	95.0	100.0	106.0	112.0
 Cabinet	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)					
	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
 Sound Level	Sound Power Level		dB[A]	87	87	87	89	89	89
	Sound Pressure Level		dB[A]	64.5	64.5	66	67	67	68
 Weight	Net Weight	380-415V/50Hz, 380V/60Hz	kg	215 + 271	215 + 314	215 + 315	271 + 315	314 + 315	315 + 315
		220V/60Hz	kg	210 + 266	210 + 309	210 + 310	266 + 310	309 + 310	310 + 310
	Gross Weight	380-415V/50Hz, 380V/60Hz	kg	231 + 289	231 + 332	231 + 333	289 + 333	332 + 333	333 + 333
		220V/60Hz	kg	226 + 284	226 + 327	226 + 328	284 + 328	327 + 328	328 + 328
 Refrigerant	Type			R410A					
	Flow Control			Micro-Computer Control Expansion Valve					
	Charge (before Shipment)		kg	16.1	17.1	17.9	19.6	20.6	21.4
 Compressor	Type			Hermetic (Scroll)					
	Model			DC80PHD + DC80PHD	DC80PHD + AA50PHD + AA50PHD	DC80PHD + AA50PHD + AA50PHD	DC80PHD + 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	Type			FVC68D					
	Charge		L/Unit	12.9	13.9	13.9	14.8	15.8	15.8
 Heat Exchanger				Multi-Pass Cross-Finned Tube					
 Condenser Fan	Type			Propeller Fan					
	Quantity			3	3	3	4	4	4
	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  Heat Recovery System (3 Pipes)	Liquid Line		mm (in.)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)
	Gas Line	Low Pressure	mm (in.)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ38.1 (1-1/2)
		High/Low Pressure	mm (in.)	φ25.4 (1)	φ28.58 (1-1/8)	φ28.58 (1-1/8)	φ28.58 (1-1/8)	φ28.58 (1-1/8)	φ28.58 (1-1/8)

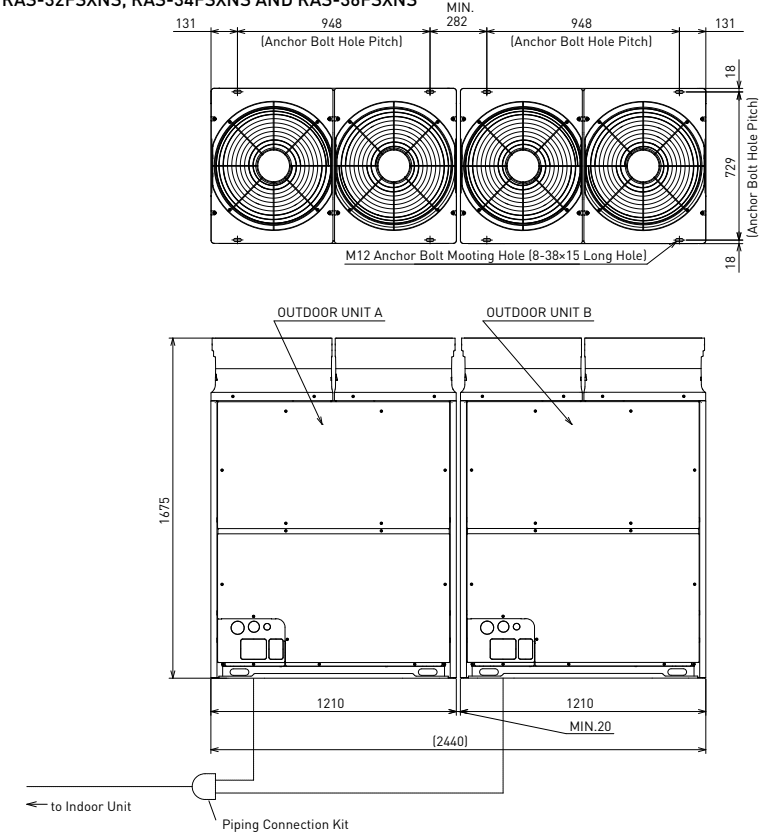
DIMENSIONS

RAS-26FSXNS, RAS-28FSXNS AND RAS-30FSXNS



Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
RAS-26FSXNS	RAS-14FSXNS	RAS-12FSXNS
RAS-28FSXNS	RAS-16FSXNS	RAS-12FSXNS
RAS-30FSXNS	RAS-18FSXNS	RAS-12FSXNS

RAS-32FSXNS, RAS-34FSXNS AND RAS-36FSXNS

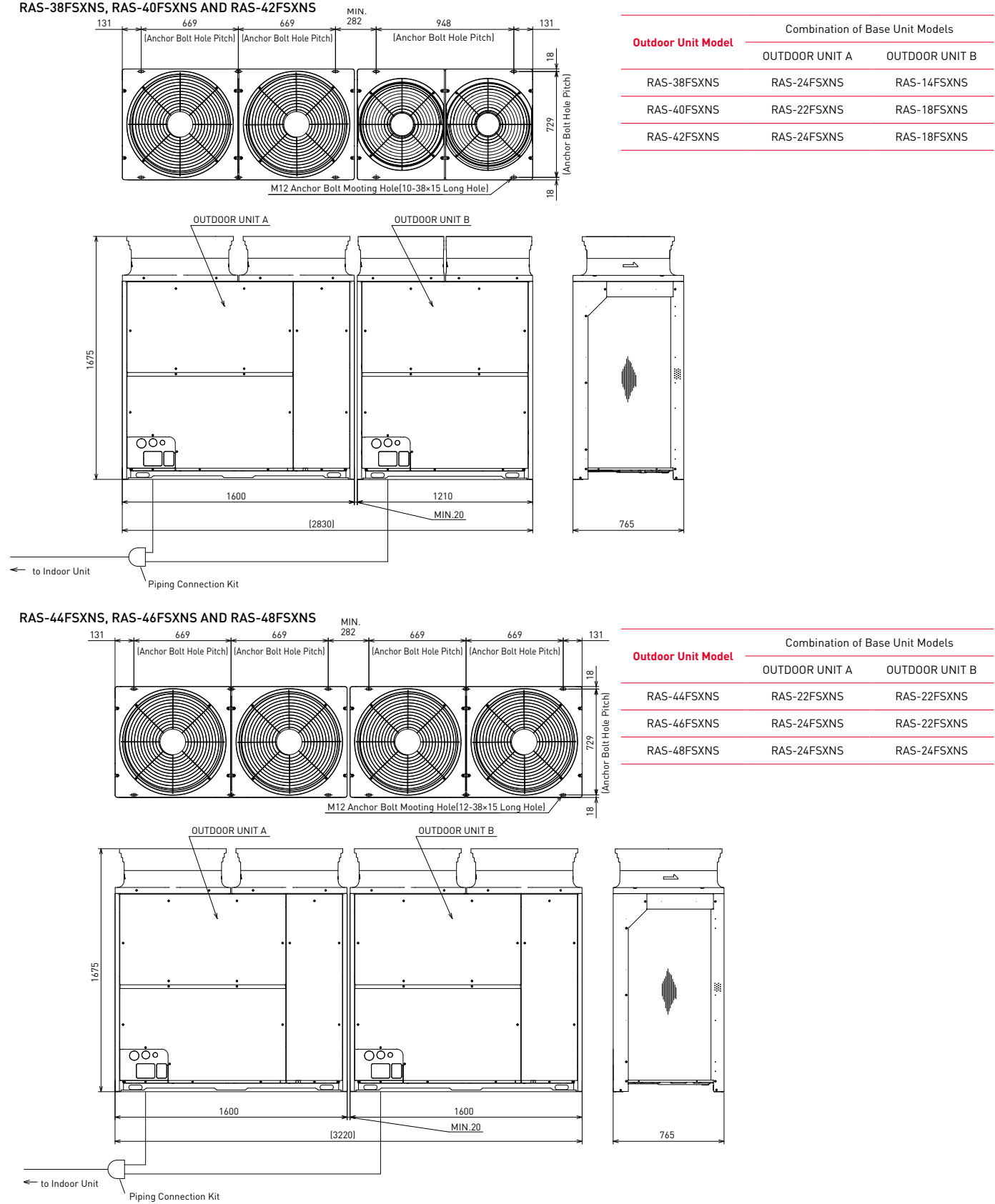


Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
RAS-32FSXNS	RAS-18FSXNS	RAS-14FSXNS
RAS-34FSXNS	RAS-18FSXNS	RAS-16FSXNS
RAS-36FSXNS	RAS-18FSXNS	RAS-18FSXNS

SPECIFICATIONS

									
HP class				38	40	42	44	46	48
Model				RAS-38FSXNS	RAS-40FSXNS	RAS-42FSXNS	RAS-44FSXNS	RAS-46FSXNS	RAS-48FSXNS
Combination of Base Unit				RAS-14FSXNS RAS-24FSXNS	RAS-18FSXNS RAS-22FSXNS	RAS-18FSXNS RAS-24FSXNS	RAS-22FSXNS RAS-22FSXNS	RAS-22FSXNS RAS-24FSXNS	RAS-24FSXNS RAS-24FSXNS
Power Supply				AC 3φ, 400V/50Hz, 380-415V/50Hz, 380V/60Hz, 220V/60Hz					
Nominal Cooling Capacity			kW	106.0	112.0	118.0	122.0	128.0	136.0
Nominal Heating Capacity			kW	118.0	125.0	132.0	140.0	145.0	150.0
 Cabinet	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)					
	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
 Sound Level	Sound Power Level		dB[A]	89	88	89	87	88	89
	Sound Pressure Level		dB[A]	68	67.5	68.5	67	68	69
 Weight	Net Weight	380-415V/50Hz, 380V/60Hz	kg	271 + 370	315 + 369	315 + 370	369 + 369	369 + 370	370 + 370
		220V/60Hz	kg	266 + 365	310 + 364	310 + 365	364 + 364	364 + 365	365 + 365
	Gross Weight	380-415V/50Hz, 380V/60Hz	kg	289 + 390	333 + 389	333 + 390	389 + 389	389 + 390	390 + 390
		220V/60Hz	kg	284 + 385	328 + 384	328 + 385	384 + 384	384 + 385	385 + 385
 Refrigerant	Type			R410A					
	Flow Control			Micro-Computer Control Expansion Valve					
	Charge (before Shipment)		kg	20.5	22.0	22.3	22.6	22.9	23.2
 Compressor	Type			Hermetic (Scroll)					
	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	Type			FVC68D					
	Charge		L/Unit	15.3	16.3	16.3	16.8	16.8	16.8
 Heat Exchanger				Multi-Pass Cross-Finned Tube					
 Condenser Fan	Type			Propeller Fan					
	Quantity			4	4	4	4	4	4
	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 (in.)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)
	Gas Line	Low Pressure	mm (in.)	φ38.1 (1-1/2)	φ38.1 (1-1/2)	φ38.1 (1-1/2)	φ38.1 (1-1/2)	φ38.1 (1-1/2)	φ38.1 (1-1/2)
		High/Low Pressure	mm (in.)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)
 Heat Recovery System (3 Pipes)									

DIMENSIONS

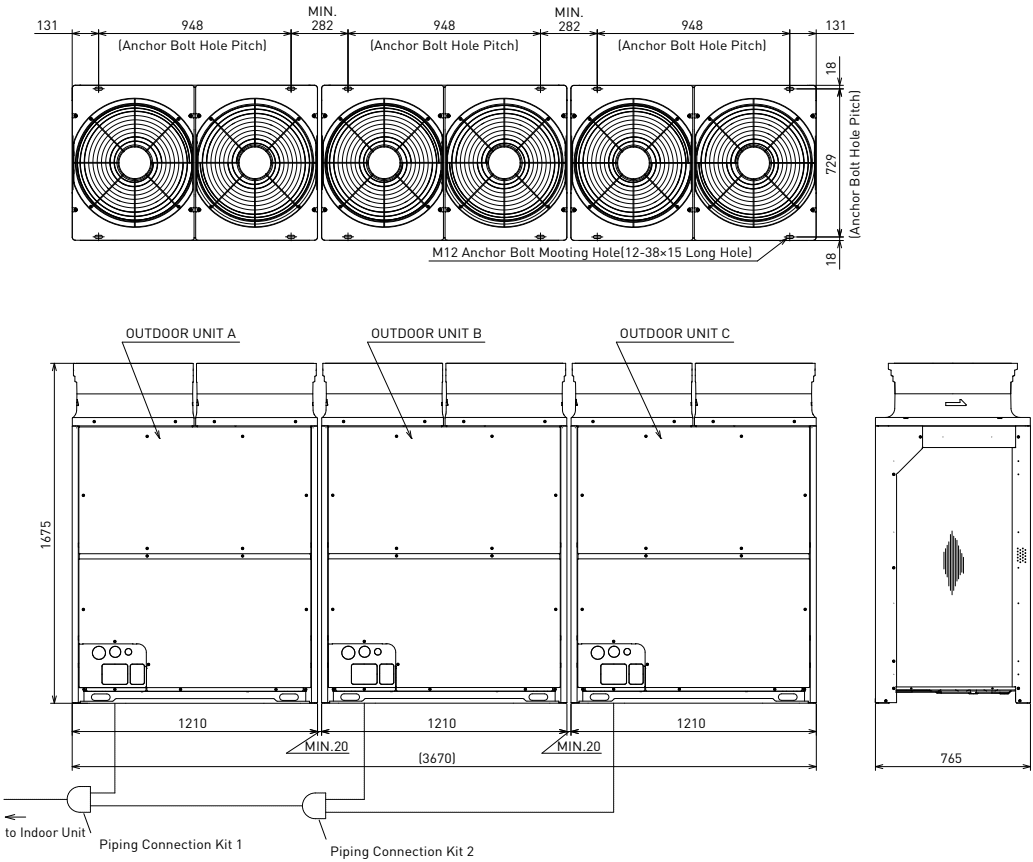


SPECIFICATIONS

						
HP class				50	52	54
Model				RAS-50FSXNS	RAS-52FSXNS	RAS-54FSXNS
Combination of Base Unit				RAS-14FSXNS RAS-18FSXNS RAS-18FSXNS	RAS-16FSXNS RAS-18FSXNS RAS-18FSXNS	RAS-18FSXNS RAS-18FSXNS RAS-18FSXNS
Power Supply				AC 3φ, 400V/50Hz, 380-415V/50Hz, 380V/60Hz, 220V/60Hz		
Nominal Cooling Capacity			kW	140.0	145.0	150.0
Nominal Heating Capacity			kW	155.0	160.0	165.0
 Cabinet	Color	Munsell Code		Natural Gray (1.0Y 8.5/0.5)		
	Outer Dimensions	H*W*D	mm	1,675 × 3,670 × 765	1,675 × 3,670 × 765	1,675 × 3,670 × 765
 Sound Level	Sound Power Level		dB(A)	90	90	91
	Sound Pressure Level		dB(A)	69	69	70
 Weight	Net Weight	380-415V/50Hz, 380V/60Hz	kg	271 + 315 + 315	314 + 315 + 315	315 + 315 + 315
		220V/60Hz	kg	266 + 310 + 310	309 + 310 + 310	310 + 310 + 310
	Gross Weight	380-415V/50Hz, 380V/60Hz	kg	289 + 333 + 333	332 + 333 + 333	333 + 333 + 333
		220V/60Hz	kg	284 + 328 + 328	327 + 328 + 328	328 + 328 + 328
 Refrigerant	Type			R410A		
	Flow Control			Micro-Computer Control Expansion Valve		
	Charge (before Shipment)		kg	30.3	31.3	32.1
 Compressor	Type			Hermetic (Scroll)		
	Model			DC80PHD + AA50PHD + AA50PHD + AA50PHD + AA50PHD	AA50PHD + AA50PHD + AA50PHD + AA50PHD + AA50PHD + AA50PHD	AA50PHD + AA50PHD + AA50PHD + AA50PHD + AA50PHD + AA50PHD
	Quantity			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
 Refrigeration Oil	Type			FVC68D		
	Charge		L/Unit	22.7	23.7	23.7
 Heat Exchanger				Multi-Pass Cross-Finned Tube		
 Condenser Fan	Type			Propeller Fan		
	Quantity			6	6	6
	Air Flow Rate		m³/min.	239 + 256 × 2	256 × 3	256 × 3
	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
 Main Refrigerant Piping	Liquid Line		mm (in.)	φ19.05 (3/4)	φ19.05 (3/4)	φ19.05 (3/4)
	Gas Line	Low Pressure	mm (in.)	φ38.1 (1-1/2)	φ38.1 (1-1/2)	φ38.1 (1-1/2)
		High/Low Pressure	mm (in.)	φ31.75 (1-1/4)	φ31.75 (1-1/4)	φ31.75 (1-1/4)

DIMENSIONS

RAS-50FSXNS, RAS-52FSXNS AND RAS-54FSXNS

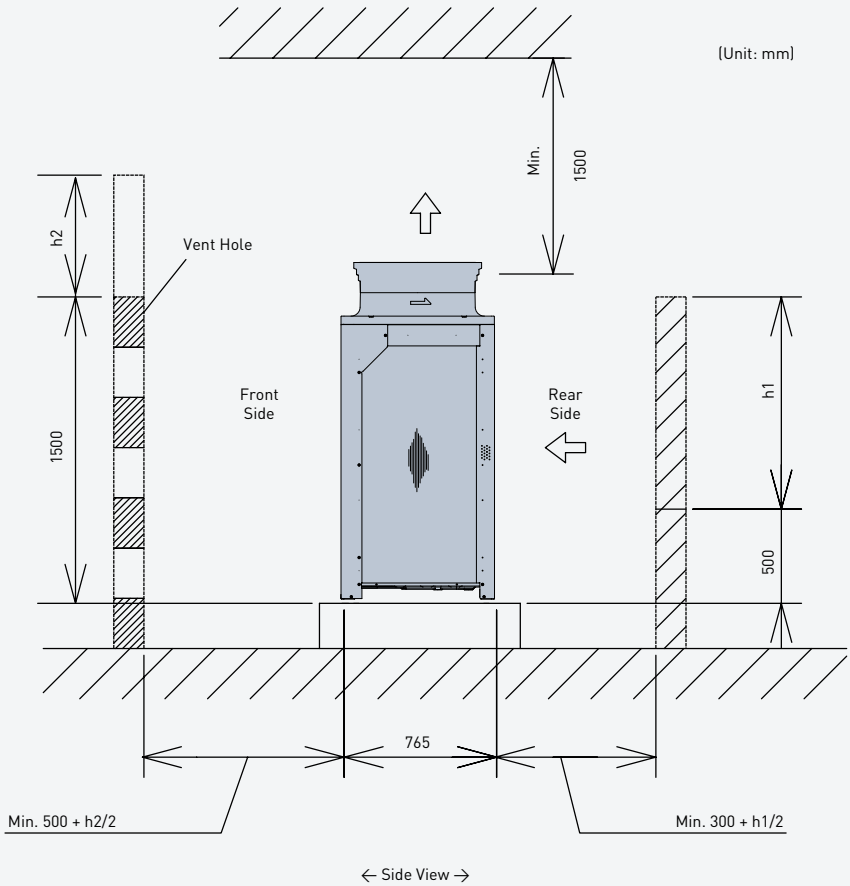


Outdoor Unit Model	Combination of Base Unit Models		
	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C
RAS-50FSXNS	RAS-18FSXNS	RAS-18FSXNS	RAS-14FSXNS
RAS-52FSXNS	RAS-18FSXNS	RAS-18FSXNS	RAS-16FSXNS
RAS-54FSXNS	RAS-18FSXNS	RAS-18FSXNS	RAS-18FSXNS

SERVICE SPACE

Make the service space when outdoor unit is installed as follows.
If the service spaces for air inlet and outlet are insufficient, it may cause a performance degradation and some abnormalities due to insufficient air intake.
Additionally, the service space is required for facilitating the maintenance.

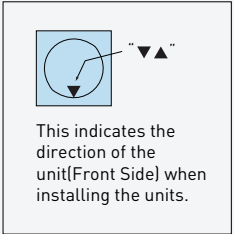
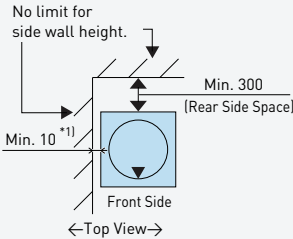
- In the case of no walls on the front side and the rear side, the service space is required as follows.
 - * Front Side: Min. 500mm
 - * Rear Side: Min. 300mm
 - * Right and Left Sides: Min. 10mm (In the case that the field-supplied snow protection food or the air outlet duct is amounted to the unit, the spaces of min. 50mm are required.)
- If the wall on the front side is over 1,500mm high, the space of $(500 + h2/2)$ mm for the front side is required.
- If the wall on the rear side is over 500mm high, the space of $(300 + h1/2)$ mm for the rear side is required.
- When the units are surrounded by walls on more than 2 sides, the space indicated in the figure above is required.
- For walls on more than 2 sides, secure the service space as shown in the following figures.
- If the space between the unit and an obstacle above the unit is less than 1,500mm or the space above the unit is closed, set up the duct at the air outlet side in order to prevent short circuit.
- When there are obstacles above the unit, the four (front, rear, right and left) sides of the unit shall be open in principle.



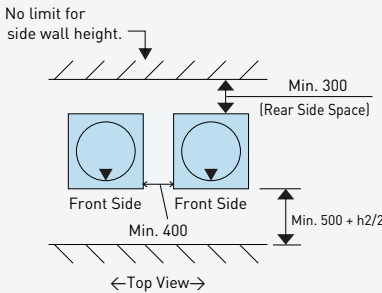
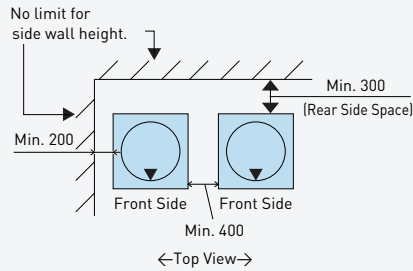
1) Walls on 2 sides

In case that the units are installed adjacent to tall buildings and there are no walls on 2 sides, the minimum rear side space must be 300mm.

• SINGLE INSTALLATION

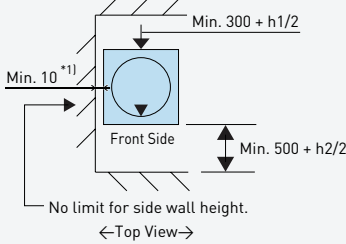


• MULTIPLE / SERIAL INSTALLATION

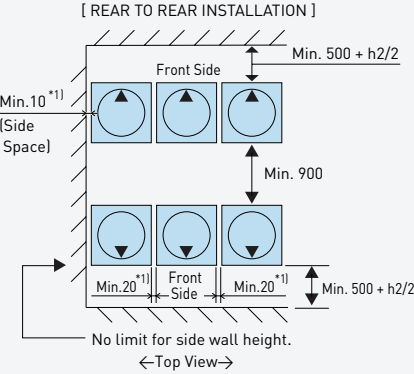
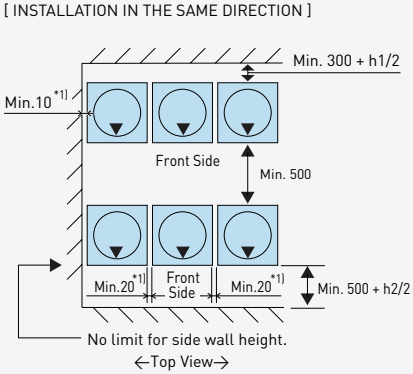


2) Walls on 3 sides

• SINGLE INSTALLATION

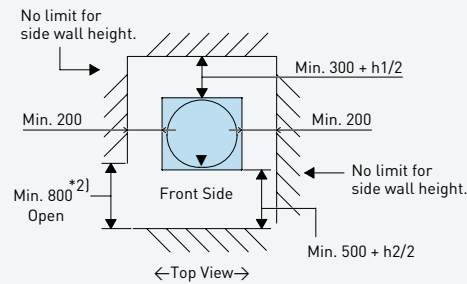


• MULTIPLE / SERIAL INSTALLATION

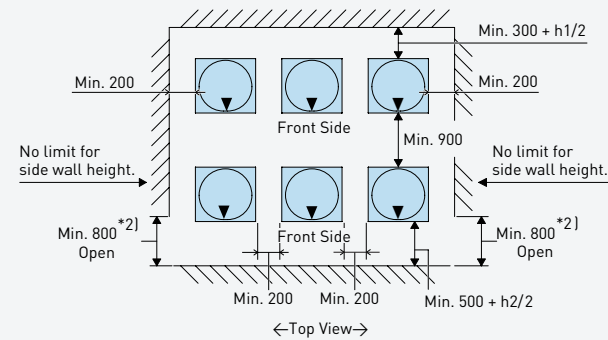


*1): In the case that the field-supplied snow protection hood or the air outlet duct is adopted, the space of minimum 50mm is required.

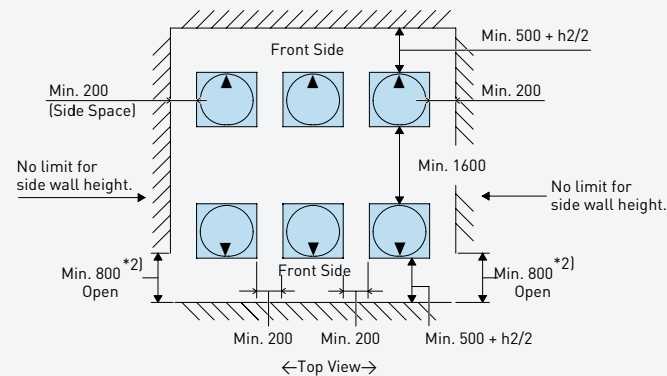
- SINGLE INSTALLATION



[INSTALLATION IN THE SAME DIRECTION]



[REAR TO REAR INSTALLATION]



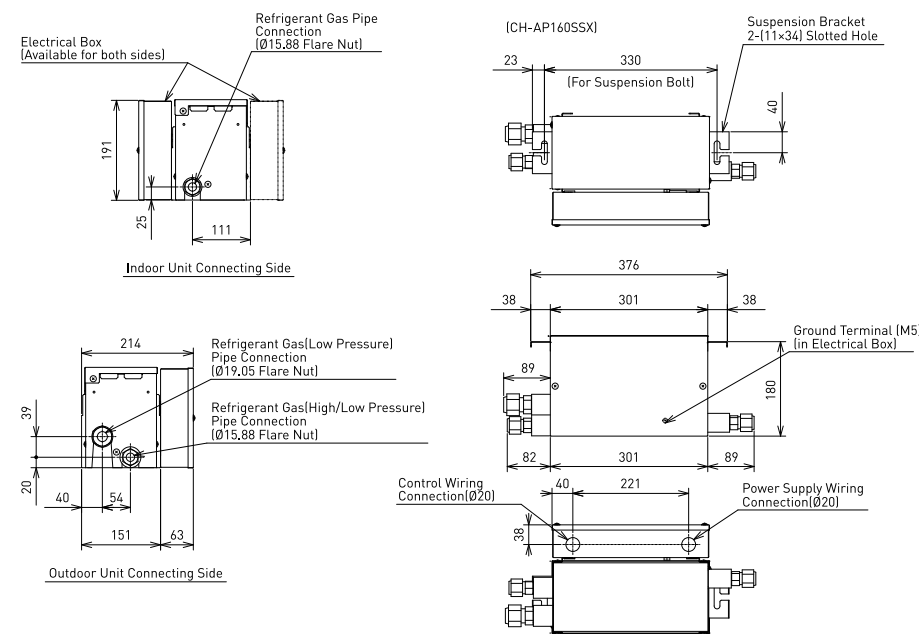
NOTES:

-
- 1 Group (Max. 6 Outdoor Units)
- Min. 1m

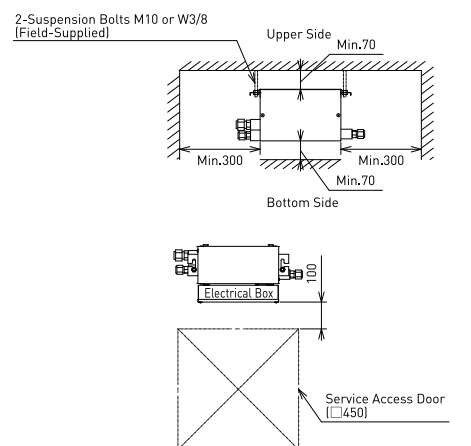
SPECIFICATIONS

Type	Single-Port	
Model Name	CH-AP160SSX	
Images		
Dimensions (H*W*D) (mm)	191 × 301 × 214	
N/W (kg)	6	
Electrical Details	Power Supply	AC1ϕ 230V/50Hz, 220-240V/50Hz, 220V/60Hz
	Power Input (W)	5
	Current (A)	0.1
Maximum Total Capacity Index (kW)	16	
Number of Port (for IDU)	1	
Maximum Connectable IDUs per Port	7	
Maximum Piping length	Total piping length between CH-Box and each indoor unit per branch	40m
Maximum Height difference	Between CH-Boxes	15m
	Between CH-Box and IDU	15m
	Between IDUs connecting to same CH-Box	4m

DIMENSIONS



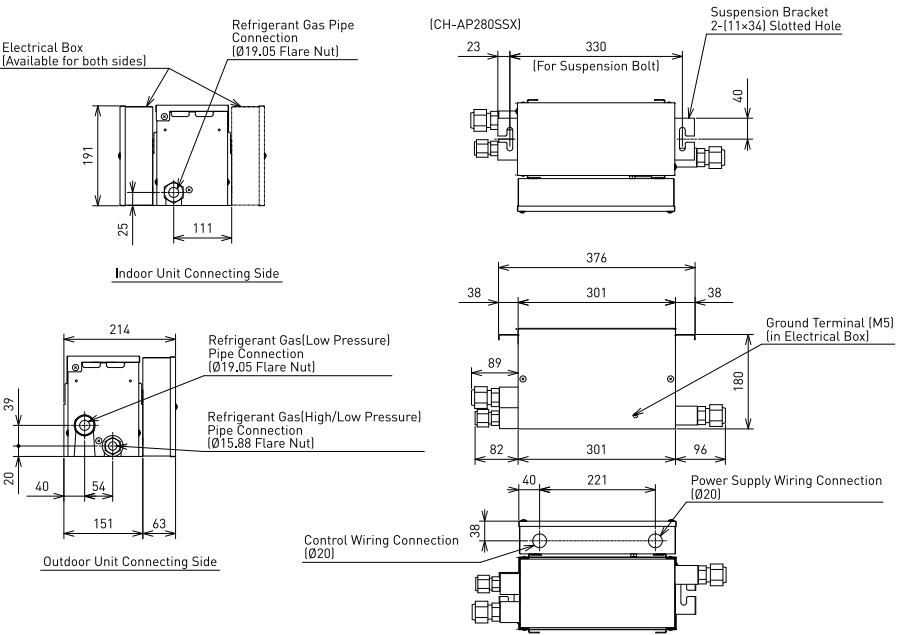
SERVICE SPACE



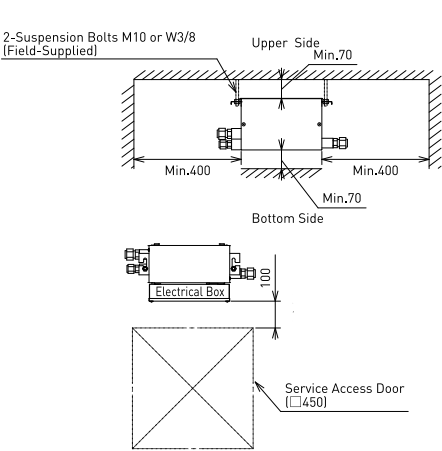
SPECIFICATIONS

Type		Single-Port
Model Name		CH-AP280SSX
Images		
		
Dimensions (H*W*D) (mm)		191 × 301 × 214
N/W (kg)		6
Electrical Details	Power Supply	AC1ϕ 230V/50Hz, 220-240V/50Hz, 220V/60Hz
	Power Input (W)	5
	Current (A)	0.1
Maximum Total Capacity Index (kW)		28
Number of Port (for IDU)		1
Maximum Connectable IDUs per Port		8
Maximum Piping length	Total piping length between CH-Box and each indoor unit per branch	40m
	Between CH-Boxes	15m
Maximum Height difference	Between CH-Box and IDU	15m
	Between IDUs connecting to same CH-Box	4m

DIMENSIONS



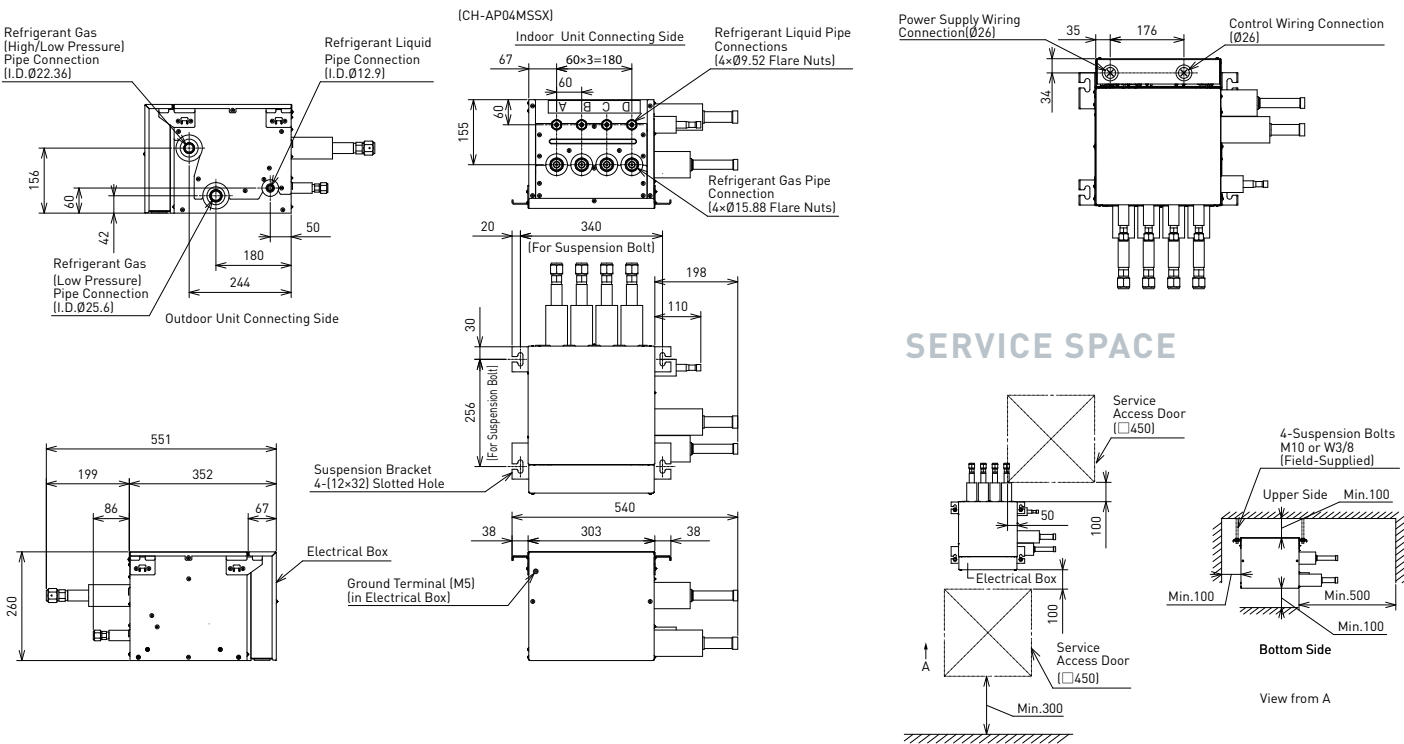
SERVICE SPACE



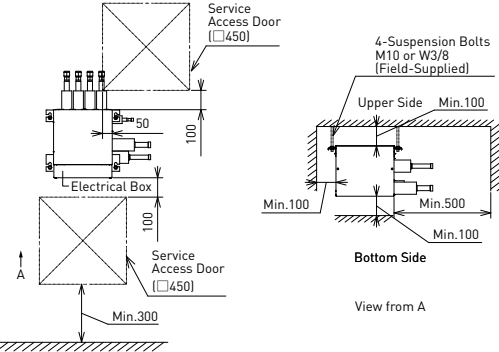
SPECIFICATIONS

Type		Multi-Port
Model Name		CH-AP04MSSX
Images		
		
Dimensions (H*W*D) (mm)		260 × 303 × 352
N/W (kg)		14
Electrical Details	Power Supply	AC1ϕ 230V/50Hz, 220-240V/50Hz, 220V/60Hz
	Power Input (W)	11.2
	Current (A)	0.2
Maximum Total Capacity Index (kW)		44.8
Number of Port (for IDU)		4
Maximum Connectable IDUs per Port		6
Maximum Piping length	Total piping length between CH-Box and each indoor unit per branch	40m
	Between CH-Boxes	15m
Maximum Height difference	Between CH-Box and IDU	15m
	Between IDUs connecting to same CH-Box	4m

DIMENSIONS



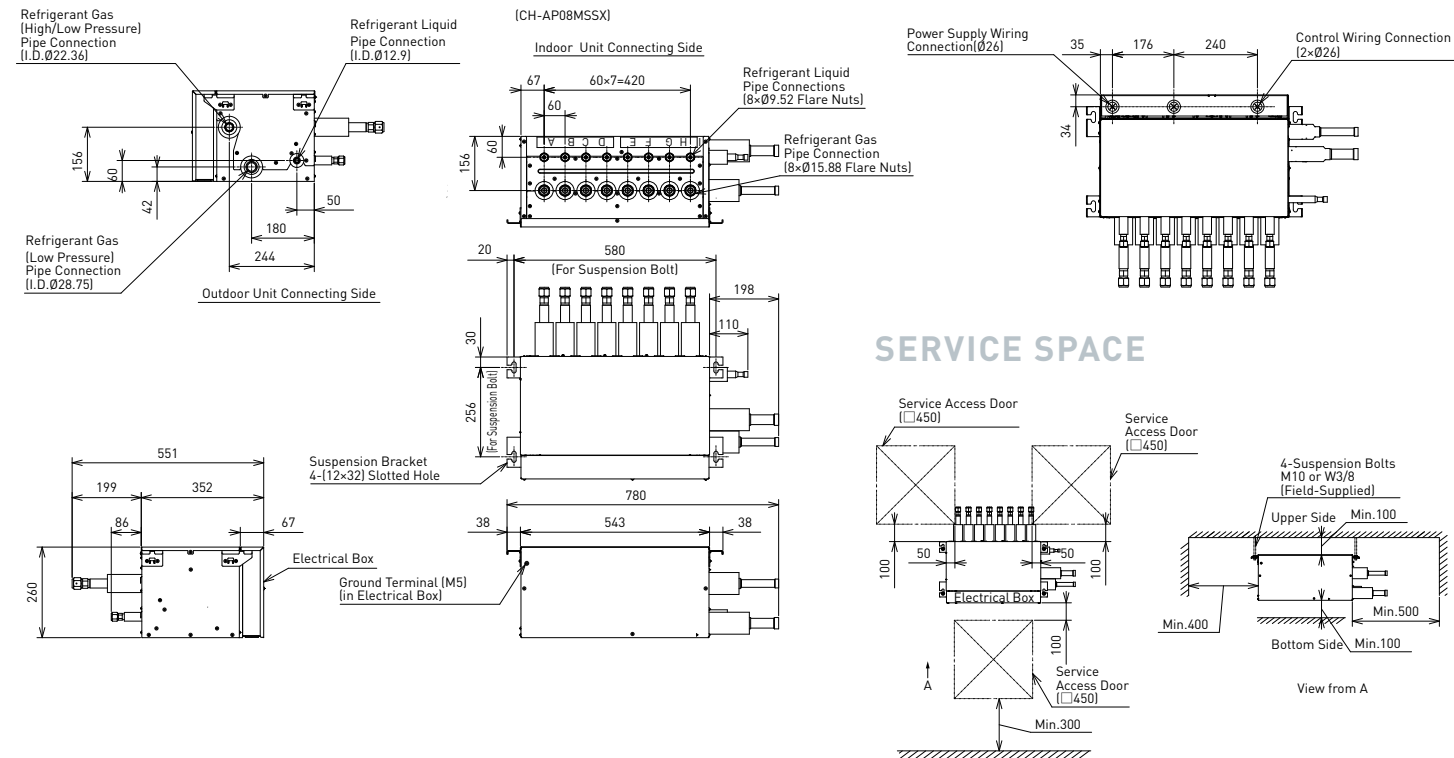
SERVICE SPACE



SPECIFICATIONS

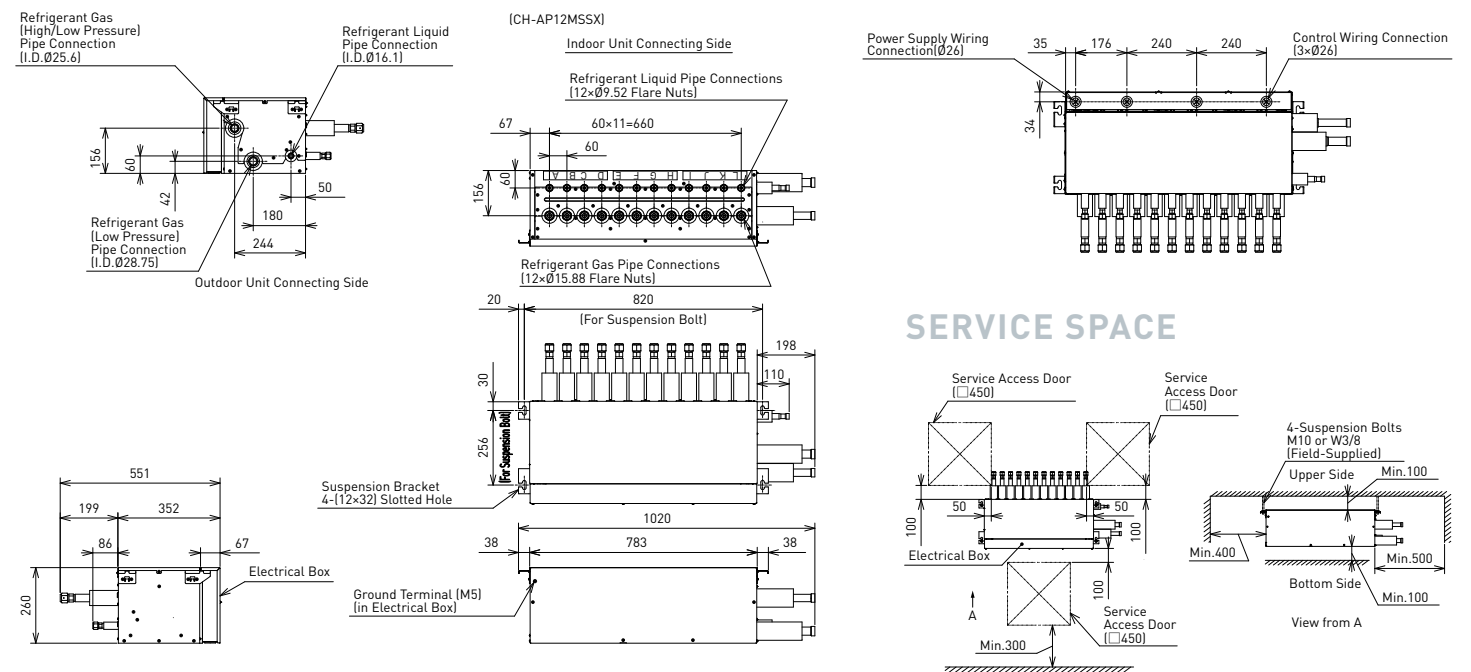


DIMENSIONS



SPECIFICATIONS

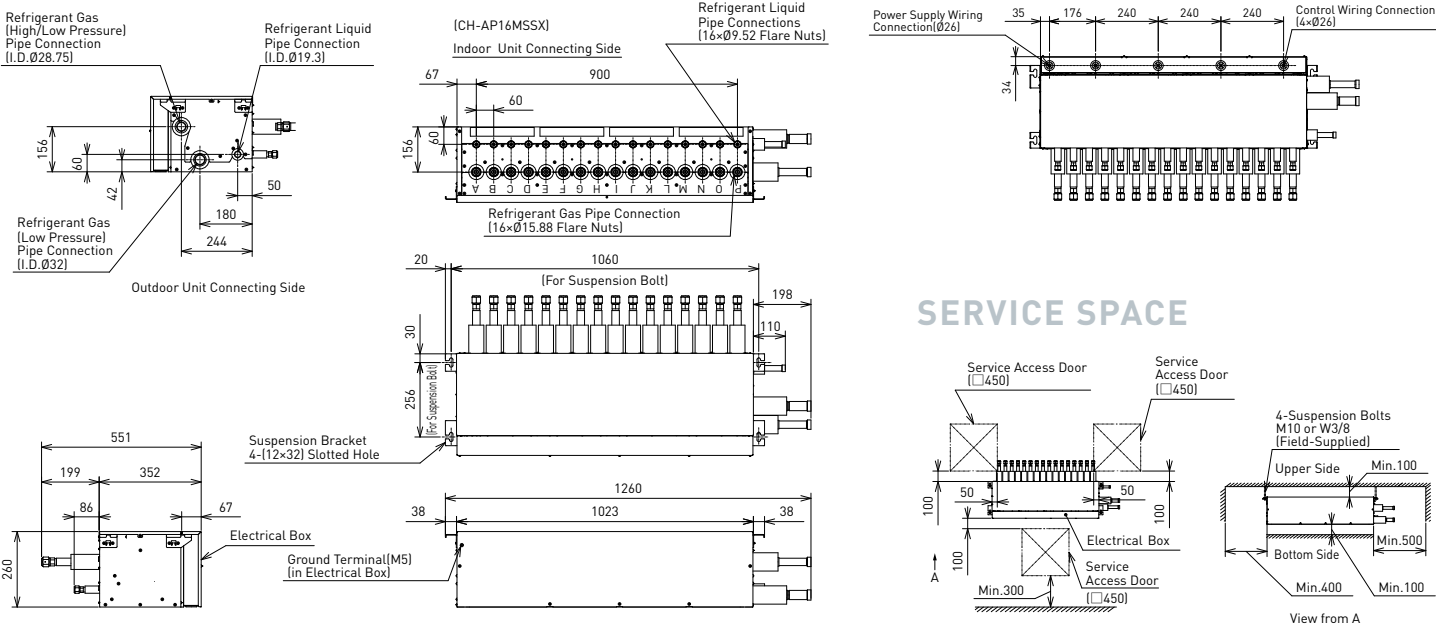
DIMENSIONS



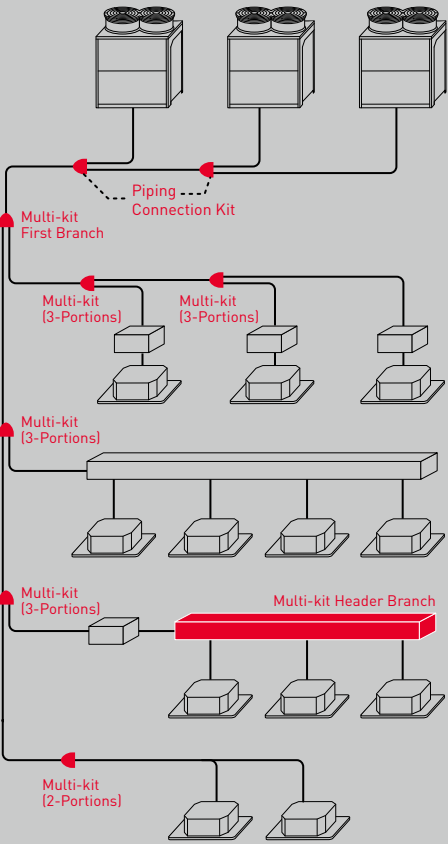
SPECIFICATIONS

Type		Multi-Port
Model Name		CH-AP16MSSX
Images		
Dimensions (H*W*D) (mm)		260 × 1023 × 352
N/W (kg)		47
Electrical Details	Power Supply	AC1ϕ 230V/50Hz, 220-240V/50Hz, 220V/60Hz
	Power Input (W)	44.8
	Current (A)	0.8
Maximum Total Capacity Index (kW)		85
Number of Port (for IDU)		16
Maximum Connectable IDUs per Port		6
Maximum Piping length	Total piping length between CH-Box and each indoor unit per branch	40m
Maximum Height difference	Between CH-Boxes	15m
	Between CH-Box and IDU	15m
	Between IDUs connecting to same CH-Box	4m

DIMENSIONS



Options



Piping connection kit for the divergence between outdoor units

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

Low Pressure Gas Side	High/Low Pressure Gas Side	Liquid Side	Reducer

Refer to "Installation & Maintenance Manual" of the outdoor unit for the dimension and distance between outdoor units and between piping connection kits.

*Refer to the Installation & Maintenance Manual of the outdoor unit for the dimensions and distance between outdoor units and between piping connection kits.

Dimensions

The figure displays four technical drawings of the 1000 Series Reducer, showing different configurations and dimensions:

- Low Pressure Gas Side:** Shows a side view with dimensions 457, 366, 84, 77, 141, and 67. It includes inlet/outlet IDs: ID22.2, ID25.4, ID19.05, ID28.58, and ID25.4.
- High/Low Pressure Gas Side:** Similar to the Low Pressure Gas Side, showing dimensions 457, 366, 84, 77, 141, and 67. It includes inlet/outlet IDs: ID22.2, ID25.4, ID19.05, ID28.58, and ID25.4.
- Liquid Side:** Shows a side view with dimensions 378, 303, 80, 130, and 67. It includes inlet/outlet IDs: ID15.88, ID19.05, ID12.7, ID9.52, and ID19.05.
- Reducer:** Shows three different reducer configurations with dimensions 125.4, 122.2, 19.05, 25.4, and 19.05. It includes inlet/outlet IDs: ID25.4, ID22.2, ID19.05, ID15.88, ID12.7, ID9.52, and ID19.05.

The figure displays four technical drawings of the 1000 Series Reducer, showing both side and end views with dimensions in millimeters.

- Low Pressure Gas Side:** Side view shows a total length of 469 mm. End view shows a diameter of 158 mm. Key dimensions include 383 mm for the main body length, 95 mm for the inlet/outlet diameter, and 89 mm for the base flange thickness. Internal diameters (ID) are specified as 31.75, 25.4, 28.58, and 22.2 mm.
- High/Low Pressure Gas Side:** Side view shows a total length of 484 mm. End view shows a diameter of 158 mm. Key dimensions include 402 mm for the main body length, 95 mm for the inlet/outlet diameter, and 89 mm for the base flange thickness. Internal diameters (ID) are specified as 25.4, 19.05, 22.2, 25.4, 28.58, and 31.75 mm.
- Liquid Side:** Side view shows a total length of 378 mm. End view shows a diameter of 130 mm. Key dimensions include 303 mm for the main body length, 80 mm for the inlet/outlet diameter, and 67 mm for the base flange thickness. Internal diameters (ID) are specified as 15.88, 19.05, 12.7, 15.88, and 19.05 mm.
- Reducer:** This section shows two configurations. The top configuration has a side view length of 378 mm and an end view diameter of 130 mm, with internal diameters (ID) of 28.58, 25.4, 22.2, and 19.05 mm. The bottom configuration shows a side view length of 303 mm and an end view diameter of 130 mm, with internal diameters (ID) of 25.4, 22.2, and 19.05 mm.

Low Pressure Gas Side

High/Low Pressure Gas Side

Liquid Side

Reducer

2. MULTI-KIT

Branching for indoor and outdoor connecting pipes

Line branch

(First branch)

Multi-kit Model	ODU Capacity	
	HP class	kW
MW-NP142X3	5	14.0
MW-NP282X3	6 - 10	16.0 - 28.0
MW-NP452X3	12 - 16	33.5 - 45.0
MW-NP562X3	18 - 20	50.0 - 56.0
MW-NP692X3	22 - 24	61.5 - 67.0
MW-NP902X3	26 - 54	73.0 - 150.0

(After first branch)

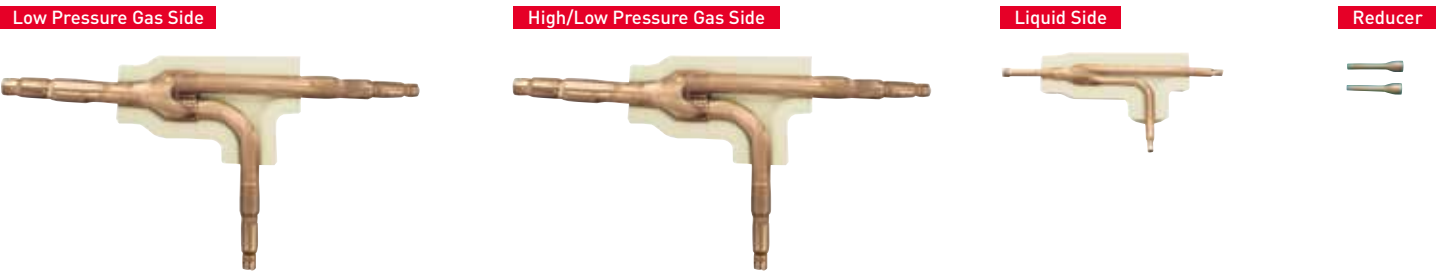
3 pipes portion

Multi-kit Model	Total IDU HP	Diameter (mm)			Remarks
		Gas Pipe	High/Low Pressure Gas Pipe	Liquid Pipe	
MW-NP142X3	< 6	φ15.88	φ12.7	φ9.52	For 3 pipes
MW-NP282X3	6 - 8.99	φ19.05	φ15.88	φ9.52	
	9 - 11.99	φ22.2	φ19.05	φ9.52	
MW-NP452X3	12 - 15.99	φ25.4	φ22.2	φ12.7	
	16 - 17.99	φ28.58	φ22.2	φ12.7	
MW-NP562X3	18 - 21.99	φ28.58	φ22.2	φ15.88	
MW-NP692X3	22 - 25.99	φ28.58	φ25.4	φ15.88	
MW-NP902X3	26 - 35.99	φ31.75	φ28.58	φ19.05	
	≥ 36	φ38.1	φ31.75	φ19.05	

2 pipes portion

Multi-kit Model	Total IDU HP	Diameter (mm)		Remarks
		Gas Pipe	Liquid Pipe	
MW-NP282A3	< 6	φ15.88	φ9.52	For 2 pipes
	6 - 8.99	φ19.05	φ9.52	
MW-NP452A3	9 - 11.99	φ22.2	φ9.52	
	12 - 15.99	φ25.4	φ12.7	
	16 - 17.99	φ28.58	φ12.7	
MW-NP692A3	18 - 25.99	φ28.58	φ15.88	
MW-NP902A3	26 - 35.99	φ31.75	φ19.05	
	≥ 36	φ38.1	φ19.05	

images:MW-NP282X3



Header branch

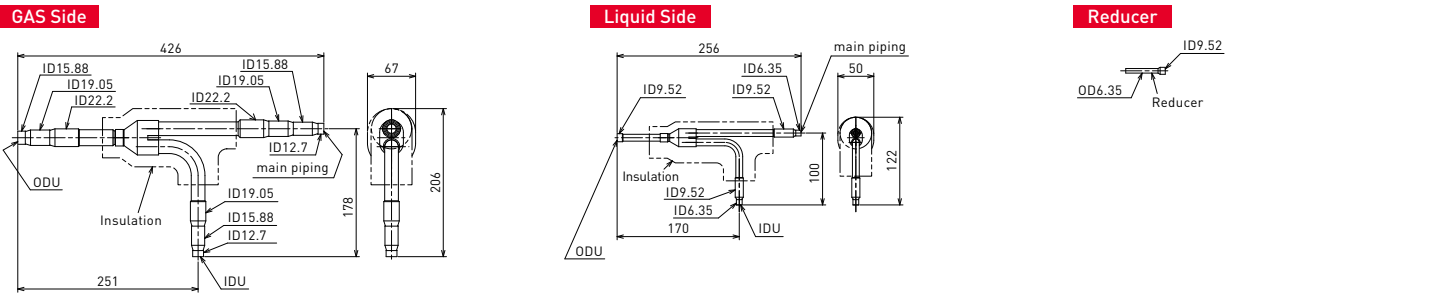
Multi-Kit Model	Total IDU HP	No. of Header branches	Remarks
MH-NP288X	5 - 10	8	For 3 pipes
MH-NP224A	5 - 8	4	For 2 pipes
MH-NP288A	5 - 10	8	

images:MH-NP224A

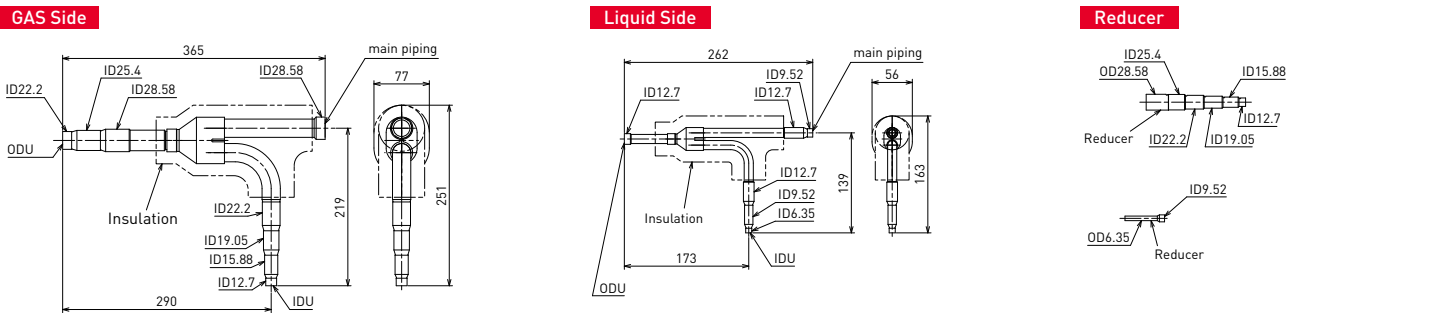


Dimensions for "After first branch_2 pipes portion"

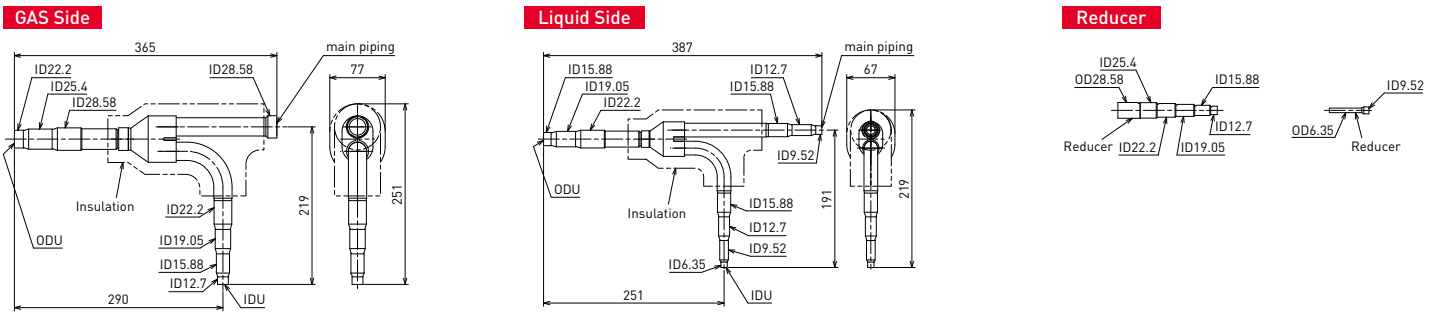
MW-NP282A3



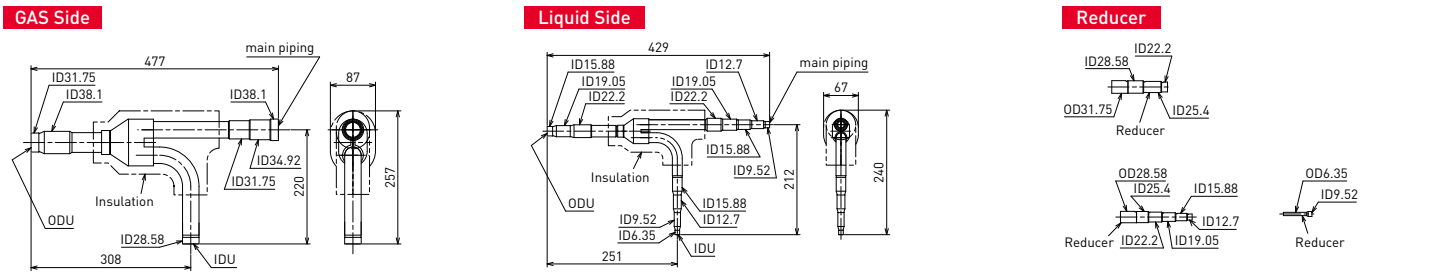
MW-NP452A3



MW-NP692A3

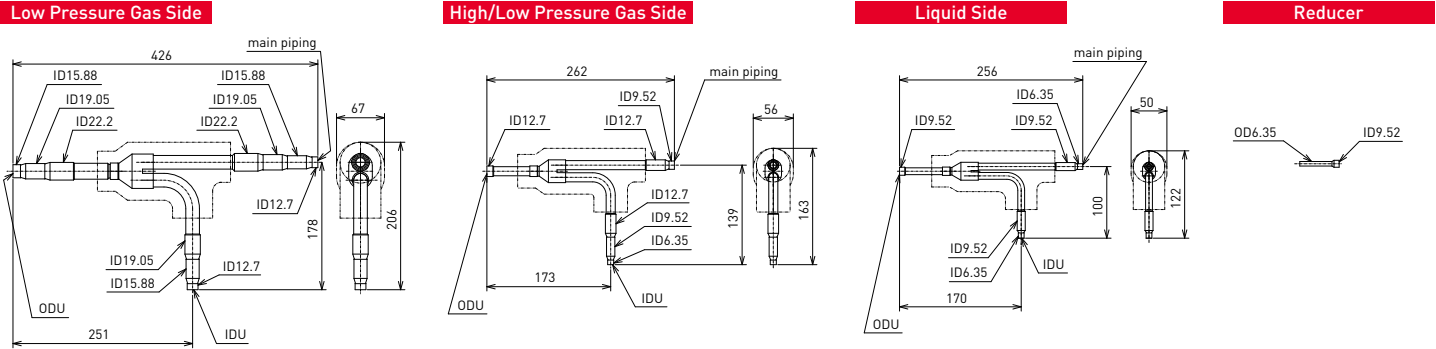


MW-NP902A3

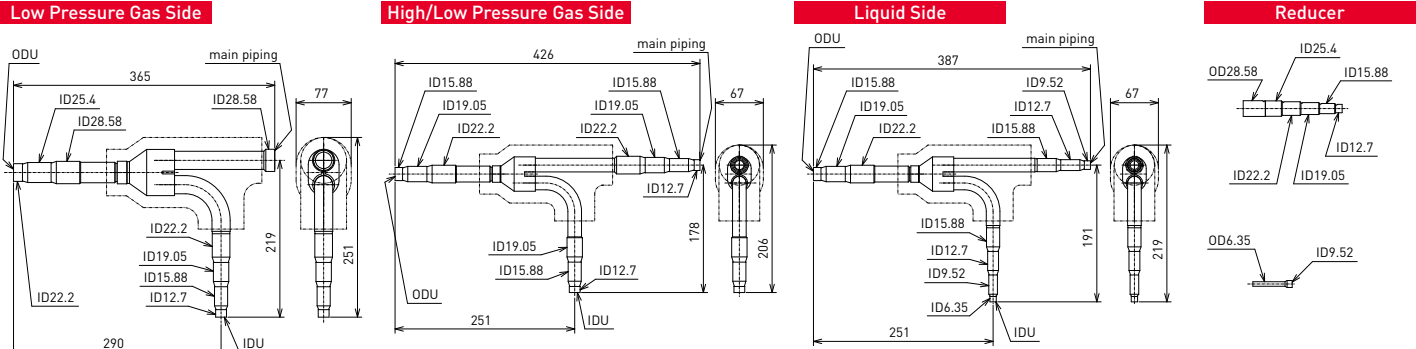


Dimensions for "First branch & After first branch_3 pipes portion"

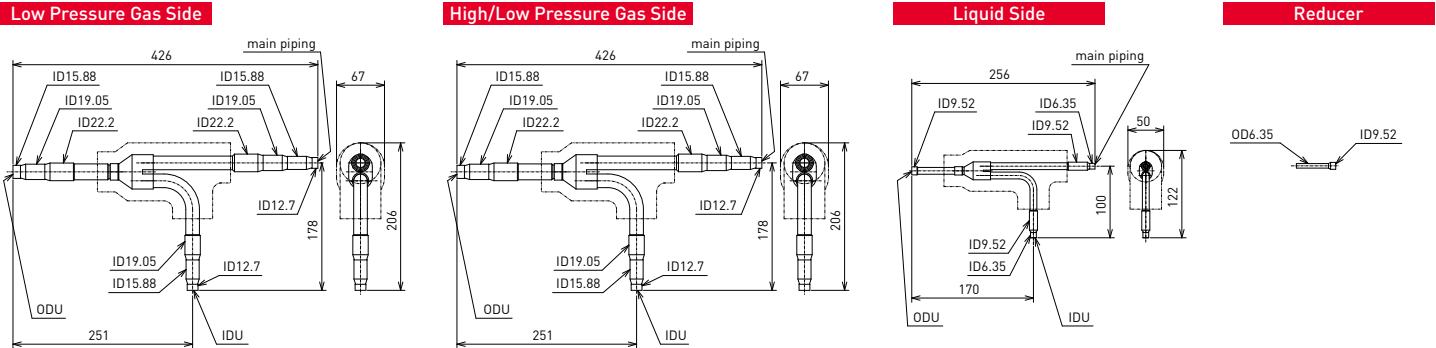
MW-NP142X3



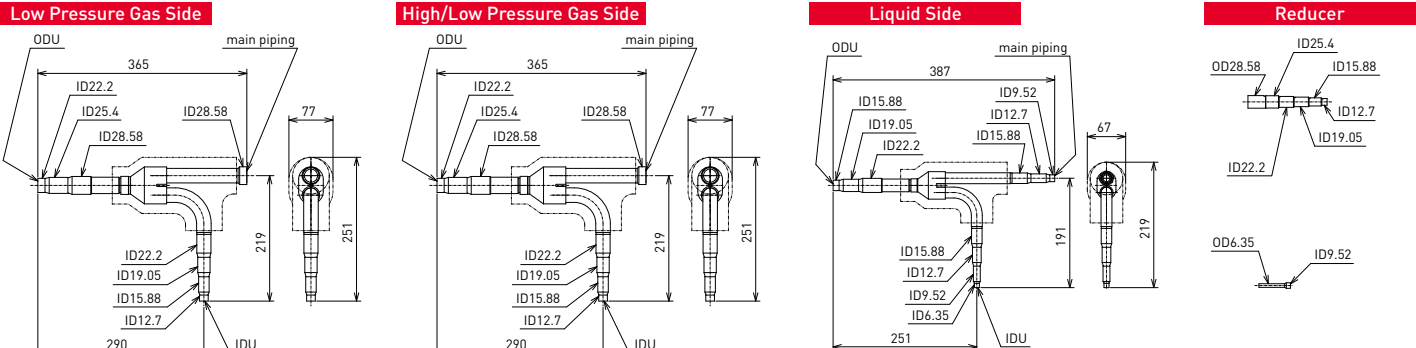
MW-NP562X3



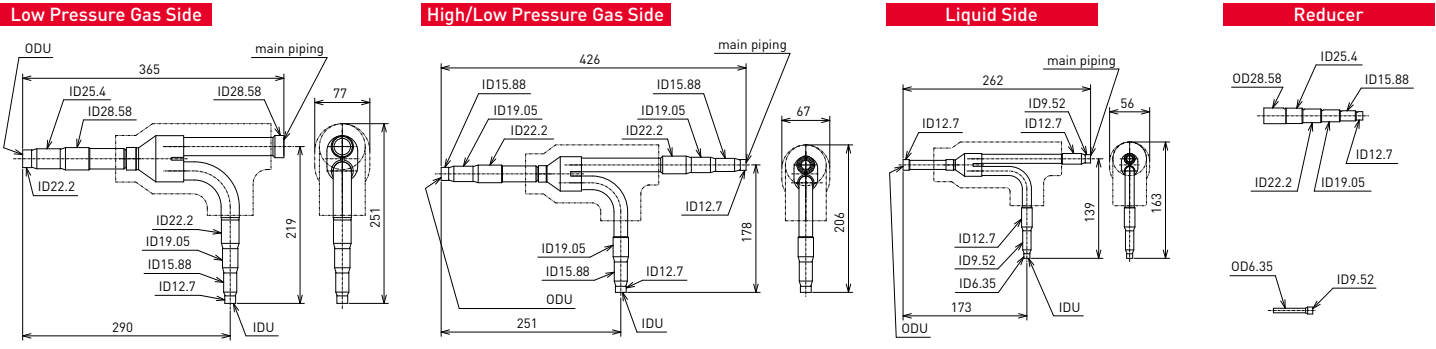
MW-NP282X3



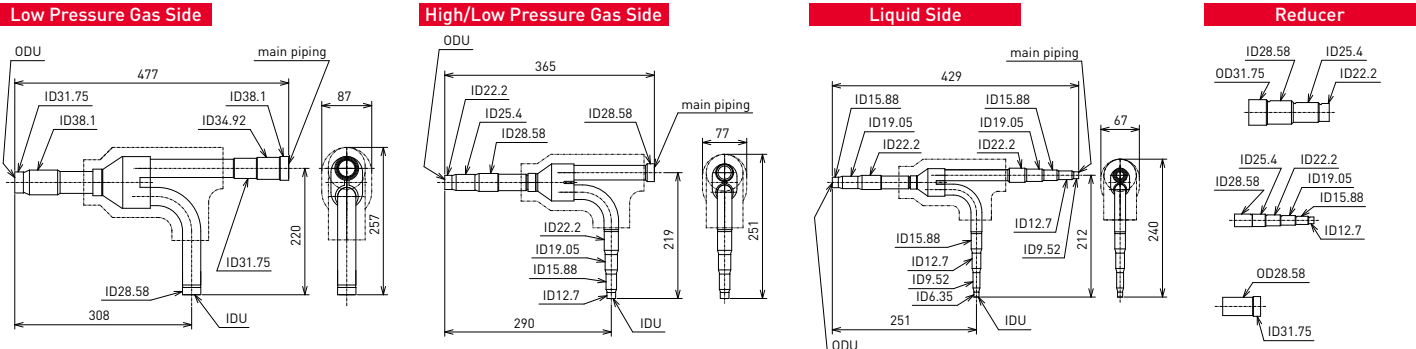
MW-NP692X3



MW-NP452X3

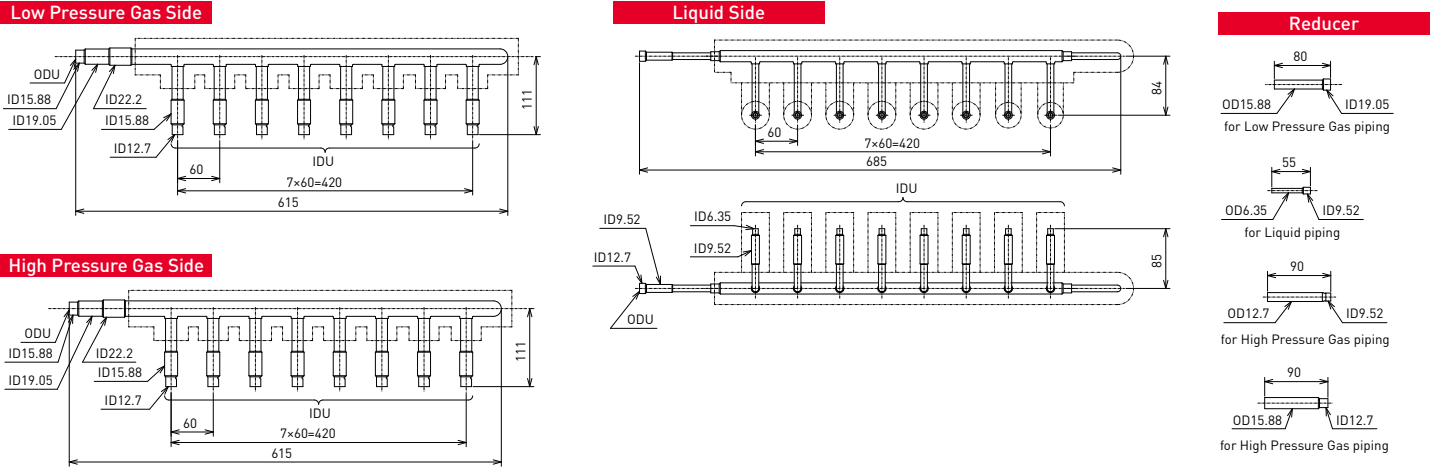


MW-NP902X3

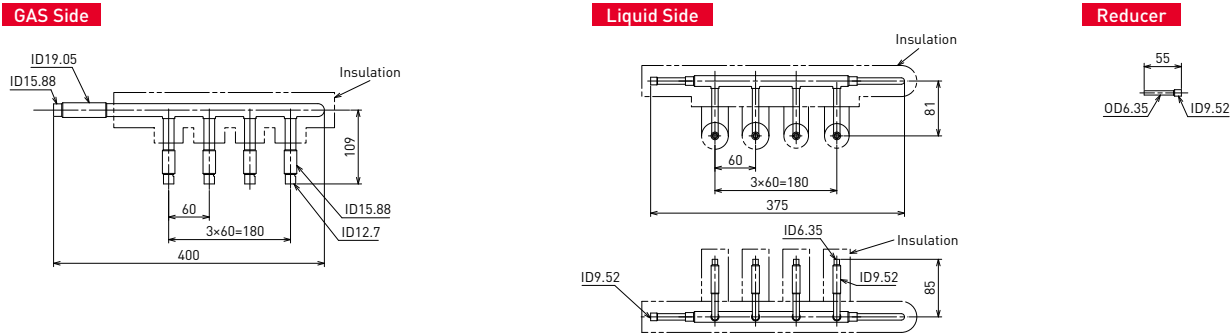


Dimensions for "Header branch"

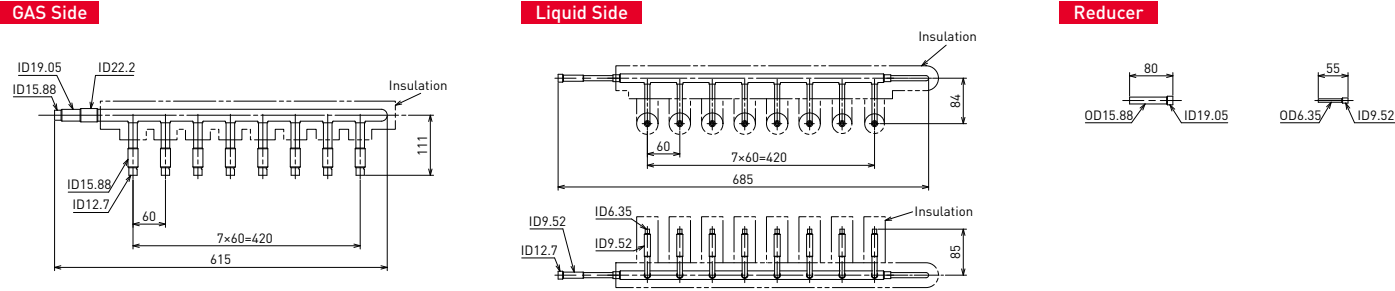
MH-NP288X



MH-NP224A



MH-NP288A



3. 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.

Model name

Name	Model
Drain Boss	DBS-TP10A

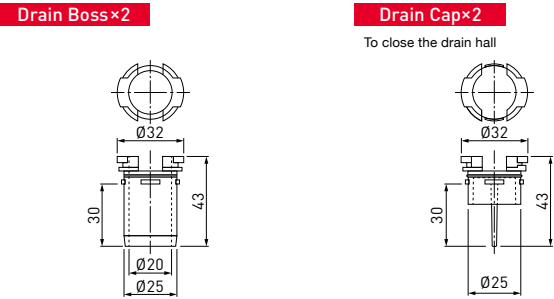
Quantity

Outdoor Unit HP class[kW]		Q'ty
FSXNP series	FSXNS series	
5 - 14 [14.0-40.0kW]	8 - 18 [22.4 - 50.0kW]	1
16 - 24 [45.0-67.0kW]	20 - 36 [56.0 - 100.0kW]	2
26 - 32 [73.0-90.0kW]	38 - 40 [106.0 - 112.0kW]	3
34 - 36 [95.0-100.0kW]	42 - 48 [118.0 - 136.0kW]	4
38 - 42 [106.0-118.0kW]	50 - 54 [140.0 - 150.0kW]	3
44 - 46 [122.0-128.0kW]		4
48 - 50 [136.0-140.0kW]		5
52 - 54 [145.0-150.0kW]		6

images:DBS-TP10A



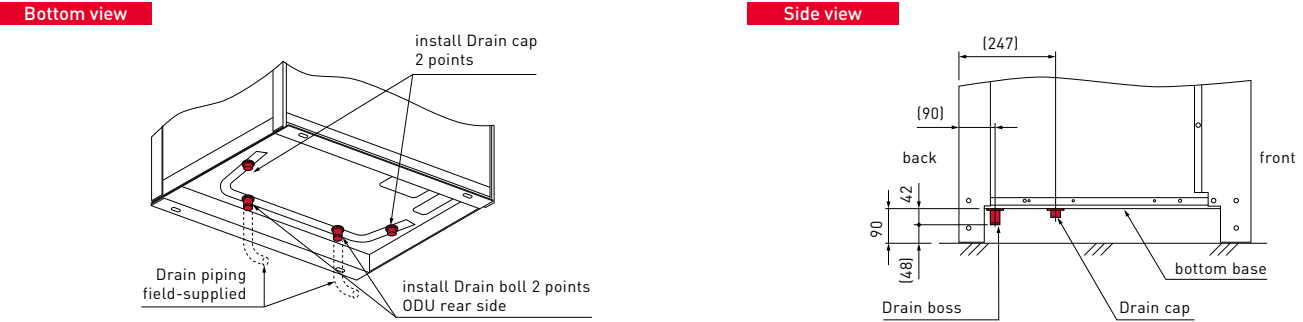
Dimensions



Drain water treatment

- Drain water is discharged during heating and defrosting operation. [Rain water is also discharged.] Pay attention to the following.
1. Choose a location where well drainage is available, or provide a drain ditch.
 2. Do not install the unit over a walkway, as condensation water may drip onto people.
In the case of installing the unit in such a location, provide an additional drain pan.
 3. Do not use the drain boss in a cold area. The drain water in the drain pipe may freeze, and the drain pipe may crack.

How to use

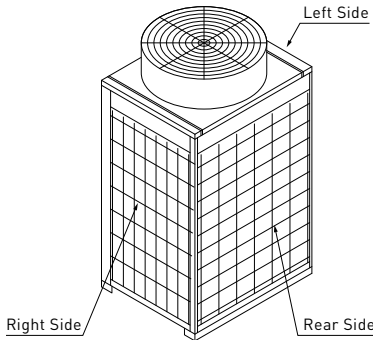


4. CABINET COVER

Air inlet grille

HP class (kW)		Air Inlet Grille		
FSXNP series	FSXNS series	Rear	Right	Left
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	
16 - 18 [45.0 - 50.0]	20 - 24 [56.0 - 67.0]	PSN-TP20BC	PSN-TP20R × 2	

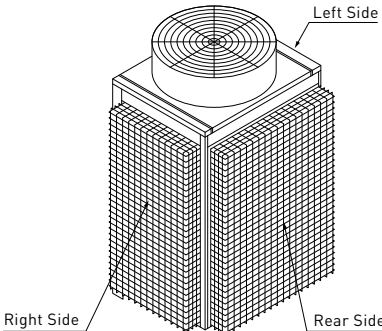
image:Air inlet grille



Protection net

HP class (kW)		Protection Net		
FSXNP series	FSXNS series	Rear	Right	Left
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 × 2	
16 - 18 [45.0 - 50.0]	20 - 24 [56.0 - 67.0]	PN-TP20BC	PN-TP20R × 2	

image:Protection net

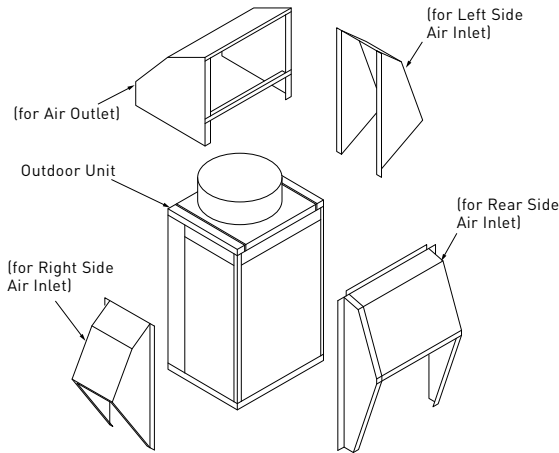


Snow protection hood

HP class (kW)		Snow Protection Hood			
FSXNP series	FSXNS series	Upper	Rear	Right	Left
		Zinc Coated Steel			
5 - 6 [14.0 - 16.0]	8 - 12 [22.4 - 33.5]	ASG-TP50FA	ASG-TP50BA	ASG-TP50R	ASG-TP50L
8 - 14 [22.4 - 40.0]	14 - 18 [40.0 - 50.0]	ASG-TP50FB	ASG-TP50BB	ASG-TP50R × 2	
16 - 18 [45.0 - 50.0]	20 - 24 [56.0 - 67.0]	ASG-TP50FC	ASG-TP50BC	ASG-TP50R × 2	
Stainless					
5 - 6 [14.0 - 16.0]	8 - 12 [22.4 - 33.5]	ASG-TP50FAS	ASG-TP50BAS	ASG-TP50RS	ASG-TP50LS
8 - 14 [22.4 - 40.0]	14 - 18 [40.0 - 50.0]	ASG-TP50FBS	ASG-TP50BBS	ASG-TP50RS × 2	
16 - 18 [45.0 - 50.0]	20 - 24 [56.0 - 67.0]	ASG-TP50FS	ASG-TP50BCS	ASG-TP50RS × 2	

NOTE:Refer to the Technical Catalog for the Optional Parts selection.

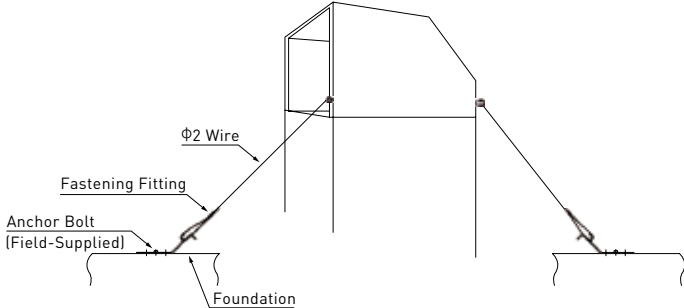
image:Snow protection hood



Toppling prevention tool

HP class (kW)		Toppling Prevention Tool
FSXNP series	FSXNS series	ASG-SW20A
5 - 18 [14.0 - 50.0]	8 - 24 [22.4 - 67.0]	

image:Toppling prevention tool

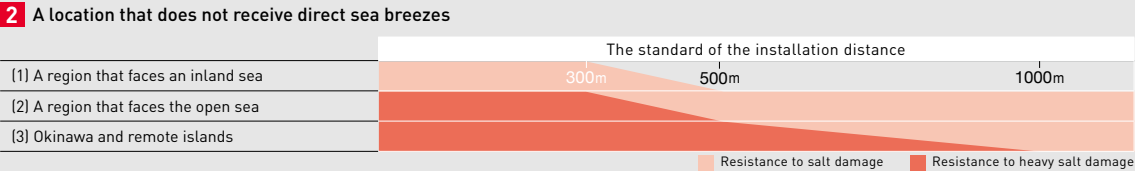
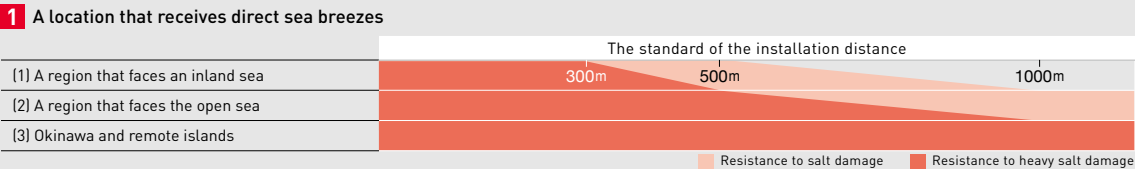


Resistance to Salt Damage Specifications
Products for Order

About the installation location

	Resistance to salt damage specifications	Resistance to heavy salt damage specifications
Installation Location	A location that is not exposed to sea breezes, but that appears to be suitable for such an atmosphere	A place that is susceptible to sea breezes (But the device is not directly exposed to water containing salt.)
Requirements for installation location	- A location where the outdoor unit is rinsed by the rain - A location that is not exposed to sea breezes - A location where the distance from the installation location of the outdoor unit to the sea is between approximately 300 meters and one kilometer - A location where the outdoor unit is in the shelter of a building	- A location where the outdoor unit receives little rain - A location that is directly exposed to sea breezes - A location where the distance from the installation location of the outdoor unit to the sea is up to approximately 300 meters - A location where the outdoor unit is mounted on the front of a building (beach side) - A location where corrugated iron roofs and the steel parts of balconies near the installation location of the outdoor unit are often repainted

The standard of the installation distance from the beach
(conditions vary according to the installation environment)



Points to note for installation, maintenance and management

•Points to note for installation (regarding maintenance and management)

The units of JRA specifications for resistance to salt damage and resistance to heavy salt damage are made with strengthened materials and paints, but they are not fully protected against corrosion. It is therefore necessary to increase the anti-corrosion effects by carrying out the following installation plans and maintenance work.

- (1) Please install the device in a location that avoids direct sea water splashes and sea breezes as much as possible.
 - Please install the device on the leeward side of a building.
 - If you have to install a device on the side of the beach, please avoid exposing it to direct sea breezes by erecting a wind-protective board.
 - Please be careful about the direction of installation. (The degree of corrosion differs depending on whether a device is installed parallel to the coastline or perpendicular to the coastline.)
- (2) Please ensure that any sea salt particles that adhere to the exterior panels will be washed away by the rain.
- (3) Because the pooling of water on the bottom base of the outdoor unit significantly boosts the corrosion effects, please be careful about the inclination so that the ability for water to run through the bottom base of an outdoor unit will not be affected.
- (4) For a device installed in a beach area, please rinse it with water on a regular basis to remove all salt adhering to the device.
- (5) Please install the device in a location where water drains away well. In particular, please secure the drainage of the foundation parts.
- (6) Please be sure to repair any scratches that are created during the installation and maintenance work.
- (7) Please inspect the conditions of the device on a regular basis. (If necessary, please apply anti-rust treatments or replace parts.)

•Points to note for maintenance

- Please carry out sufficient maintenance work on the device.
- If you stop using the device for a long time, such as during the off-season, please take measures such as putting a cover on the device.

*If you install the device in a special atmosphere, you will need to undertake sufficient special consideration.
Units that are resistant to salt damage are based on the "Standard of Testing Resistance to Salt Damage of Air Conditioning Devices JRA9002" of the Japan Refrigeration and Air Conditioning Industry Association [JRAIA].

INDOOR UNITS

Indoor Units Index

Introduction

- 73 What's new in Hitachi IDU ?
IDU characterization
- 74 Line-up Overview
Recommended Capacity
for different size application
- 75 Features Comparison

Ceiling Cassette

- 78 4-way cassette
- 81 4-way cassette compact
- 83 2-way cassette
- 85 1-way cassette

Ducted

- 87 High External Static Pressure
Medium External Static Pressure
- 90 Slim
Compact
- 91 Larger Air Volume

Exposed & Concealed

- 93 Floor Exposed
Floor Concealed
Floor / Ceiling Convertible
- 95 Ceiling Suspended
- 97 Wall Mounted

Options

- 99 Introduction of Motion Sensor Kit
- 100 Ventilation

Dimensions

- 127 Fan performance sheet

What's new in Hitachi IDU ?

► P.88 Ducted High ESP

Expanded Line-up!



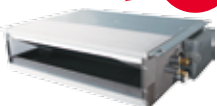
► P.88 Ducted Medium ESP

Expanded Line-up!



► P.90 Ducted Slim

New



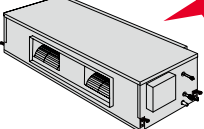
► P.90 Ducted Compact

New



► P.91 Ducted Larger Air Volume

New



► P.93 Floor / Ceiling Convertible

New



► P.97 Wall Mounted

Expanded Line-up!

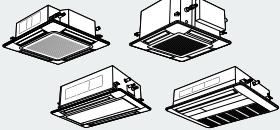
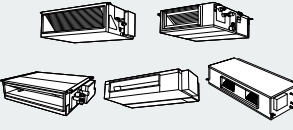
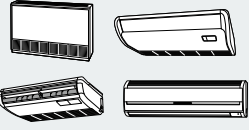
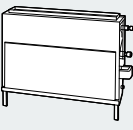


► P.100 Ventilation

New



IDU characterization

	Ceiling Cassette	Ducted	Exposed	Concealed
				
Design Flexibility	★★★ Good level of design flexibility	★★★ Design flexibility	★★★ Design Flexibility	★★★ Very little installation space required thanks to only 220mm depth
Installation Ease	★★★ Economical Installation	★★★ More complicated Installment	★★★ Most economical Installment	★★★ more complicated Installment
Aesthetics	★★★ Less spoil of indoor aesthetics	★★★ Indoor aesthetics remains	★★★ Exposed	★★★ more complicated Installment
Fresh Air Adaptability	★★★ Limited flesh air supply	★★★ Ease of flesh air distribution	★★★ no flesh air supply	★★★ no flesh air supply
Application Example	 Retails Restaurant Outlet Office	 HOTEL Luxury Condominium Restaurant	 Residence Classroom Office Hallways Restaurant	 Residence Hotel Hallways Cultural Heritage

Line-up Overview

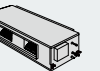
IDU category	HP(Class)		0.6	0.8	1.0	1.3	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0	10.0
	Cooling(kW)		1.6	2.2	2.8	3.6	4.3	5.6	7.1	8.0	11.2	14.0	16.0	18.0	22.4	28.0
	Btu/h		5.5K	7.5K	9.6K	12.3K	14.7K	19.1K	24.2K	27.3K	38.2K	47.8K	54.6K	61.4K	76.4K	95.5K
Ceiling Cassette	4-way cassette				•		•	•	•	•	•	•	•			
	4-way cassette compact		•	•	•		•	•	•							
	2-way cassette			•	•		•	•	•	•	•	•	•			
	1-way cassette			•	•		•	•	•	•						
Ducted	High ESP						New	New	•	•	•	New		•	•	
	Medium ESP			•	•		•	•	•	New	New	New	New			
	Slim	New 		•	•	•	•									
	Compact	New 		•	•	•	•	•	•							
	Larger Air Volume	New 								•	•	•	•	•		
	Floor Exposed				•	•										
Exposed and Concealed	Floor Concealed				•	•										
	Floor / Ceiling Convertible	New 					•	•	•	•	•	•				
	Ceiling Suspended						•	•	•	•	•	•	•			
	Wall mounted		New	New	•	•	•	•	•	•	•					

Recommended Capacity for different size application

Type	Load for calculation	HP(Class)		1.5	2	2.5	3	4	5	6	8	10
		Cooling(kW)		4.3	5.6	7.1	8	11.2	14	16	22.4	28
		Btu/h		14.7K	19.1K	24.2K	27.3K	38.2K	47.8K	54.6K	76.4K	95.5K
Restaurant	230-370 (W/m ²)	Recommended size	11-17m ²	14-20m ²	17-27m ²	22-35m ²	30-49m ²	38-61m ²	43-70m ²	61-97m ²	76-122m ²	
Retail Shop	155-230 (W/m ²)		17-26m ²	22-32m ²	27-41m ²	35-52m ²	49-72m ²	61-90m ²	70-103m ²	97-145m ²	122-181m ²	
Hotel, Hospital, Office	115-170 (W/m ²)		24-35m ²	29-43m ²	37-55m ²	47-70m ²	66-97m ²	82-122m ²	94-139m ²	132-195m ²	165-243m ²	

* As a reference in Japanese standard environment
* Please consult your distributor or dealer in inquiry

Features Comparison

category	Features	Ceiling Cassette Type				Ducted Type					Exposed & Concealed					
		4-way cassette	4-way cassette compact	2-way cassette	1-way cassette	High ESP	Medium ESP	Slim	Compact	Larger Air Volume	Floor Exposed	Floor Concealed	Floor / Ceiling convertible	Ceiling suspended	Wall Mounted	
																
	RCI	RCIM	RCD	RCS	RPI-FSN3/FSN1	RPIM-FSN3	RPIZ-FSNQ5	RPIZ-FSN1Q	RPI-FSN25Q	RPF (*12)	RPFI (*12)	RPFC-FSNQ	RPC	RPK		
	Connection to PC-ARF1	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Motion sensor connection	●	●	●	●	●	●	-	-	-	-	-	●	-		
	Capacity control in IDU/ODU	●	●	●	●	●	●	-	-	-	-	-	●	●[*1]		
	IDU rotating control	●	●	●	●	●	●	-	-	-	-	-	●	●[*1]		
	Automatic fan operation	●	●	●	●	●	●	●	●	●	●	●	●	●[*1]		
	Power Consumption visualization	●	●	●	●	●	●	-	-	-	-	-	-	●	●[*1]	
	Eco mode guidance	●	●	●	●	●	●	●	●	●	●	●	●	●[*1]		
	timer operation	●	●	●	●	●	●	●	●	●	●	●	●	●		
	cold draught prevention	●	●	●	●	●	●	- [*7]	- [*7]	- [*7]	- [*7]	- [*7]	- [*7]	- [*7]	- [*7]	
	High ceiling operation [*9]	4.2m/4.3m[*10]	0.6-1.5HP:3.2m 2.0-2.5HP:3.5m	3.5m	4.0m	-	-	-	-	-	-	-	4.3m	-		
	Dry mode	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Fan speed steps	4	4	4	4	4	4	3	3	3	3	3	4	4		
	Louver direction steps	7 [*2]	7 [*2]	7 [*2]	7 [*3]	-	-	7	7	7	-	-	7 [*3]	7 [*3]		
	Individual louver setting	●	●	●	-	-	-	-	-	-	-	-	-	-		
	Auto louver setting	●	●	●	●	-	-	-	-	-	-	-	●	●	●	
	Quiet Operation (dB(A))[*4]	-	0.6HP: 24.5dB	-	0.8HP: 27dB	-	-	0.8HP:22dB	0.8HP:31dB	3.0HP:39dB	-	-	1.8HP:30dB	1.5HP: 28dB	-	
	Silent Mode	●	●	●	●	●	●	-	-	-	-	-	●	●		
	0.5 degree temperature setting	●	●	●	●	●	●	-	-	-	-	-	●	●[*11]		
	H-LINK Connection	●	●	●	●	●	●	●	●	●	●	●	●	●		
	with Total Heat Exchanger	●	●	●	●	●	●	-	-	-	●	●	-	●	●	
	by centralized control system	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Main & Sub remote controller setting	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Remote Controller setting	●[*8]	●[*8]	●[*8]	●[*8]	●[*8]	●[*8]	●	●	●	●	●	●	●[*8]	●	
	Optional Function Setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Operation Lock / Set	●	●	●	●	●	●	●	●	●	●	●	●	●		
	External Signal Input / Output	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Schedule Setting	●	●	●	●	●	●	●	●	●	●	●	●	●[*1]		
	Power-saving schedule	●	●	●	●	●	●	●[*13]	●[*13]	●[*13]	●[*13]	●[*13]	●[*13]	●	●[*1]	
	Self-diagnosis	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Dirty filter notice	●	●	●	●	●	●	●	●	●	●	●	●	●		
	DC Drain Pump standardization	●	●	●	●	●	●	●	●	-	-	-	●[*7]	-		
	Wide panel for renewal	●	-	●	●	-	-	-	-	-	-	-	-	-		
	Space panel	●	-	●	●	-	-	-	-	-	-	-	-	-		
	Colored decorative panel options	3[*5]	-	3[*5]	3[*5](*)7]	-	-	-	-	-	-	-	-	-		
	Aperture-shielding set	●	-	-	●[*6]	-	-	-	-	-	-	-	-	-		
	Receiver kit for PC-AWR	PC-ALH3	PC-ALHC1	PC-ALHD1	PC-ALHS1	PC-ALHZ1	PC-ALHZ1	PC-ALHZ1	PC-ALHZ1	PC-ALHZ1	PC-ALHZ1	PC-ALHZ1	PC-ALHP1	PC-ALHZ1		
	Motion Sensor Kit	P-AP160NAE	SOR-NEC	SOR-NED	SOR-NES	SOR-NEZ	SOR-NEZ	-	-	-	-	-	SOR-NEP	-		
	High humidity kit	●	-	- [*7]	- [*7]	-	-	-	-	-	-	-	-	-		
Fresh air absorption kit		●	●	●	●	-	-	-	-	-	-	-	●	-		
●		Okay														
-		No														

*1 available only in Wired Controller
*2 5 taps only in use of cooling/dry. 7 taps available in setting individual louver setting
*3 5 taps only in use of cooling/dry.
*4 sound pressure level in Low-tap

*5 3 colors available (beige, grey and black)
*6 for Clipped ceiling (one-way) type only, with Aperture-shielding set
*7 Contact your dealer in inquiry
*8 Receiver kit (options) necessary

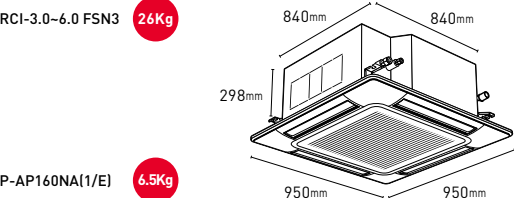
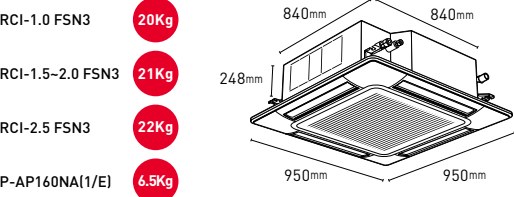
*9 Ceiling Height, in use of largest HP model in largest air volume
*10 with Aperture-shielding set
*11 optional function setting required in use of PC-AWR
*12 power-saving function is not applicable

*13 Automatic fan operation available only

4-way cassette



Dimensions



Application



Indoor Unit Type			4-Way Cassette Type							
Model			RCI-1.0FSN3	RCI-1.5FSN3	RCI-2.0FSN3	RCI-2.5FSN3	RCI-3.0FSN3	RCI-4.0FSN3	RCI-5.0FSN3	RCI-6.0FSN3
Indoor Unit Power Supply			AC 1Φ, 220-240V/50Hz, 220V/60Hz							
Nominal Cooling Capacity		kW(Btu/h)	2.8(9,600)	4.0(13,600)	5.6(19,100)	7.1(24,200)	8.0(27,300)	11.2(38,200)	14.0(47,800)	16.0(54,600)
Nominal Heating Capacity		kW(Btu/h)	3.2(10,900)	4.8(16,400)	6.3(21,500)	8.5(29,000)	9.0(30,700)	12.5(42,600)	16.0(54,600)	18.0(61,400)
Sound Pressure Level(Overall A Scale) (Hi2/Hi/Me/Lo)		dB	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 Dimensions	Height	mm(in.)	248(9-3/4)	248(9-3/4)	248(9-3/4)	248(9-3/4)	298(11-3/4)	298(11-3/4)	298(11-3/4)	298(11-3/4)
	Width	mm(in.)	840(33-1/16)	840(33-1/16)	840(33-1/16)	840(33-1/16)	840(33-1/16)	840(33-1/16)	840(33-1/16)	840(33-1/16)
	Depth	mm(in.)	840(33-1/16)	840(33-1/16)	840(33-1/16)	840(33-1/16)	840(33-1/16)	840(33-1/16)	840(33-1/16)	840(33-1/16)
Net Weight		kg(lbs.)	20(44)	21(46)	21(46)	22(49)	26(57)	26(57)	26(57)	26(57)
Refrigerant			R410A							
Indoor Fan	Air Flow Rate(Hi2/Hi/Me/Lo)	m³/min./[l/s]	15/13/11/9 (250/217/ 183/150)	21/17/14/11 (350/283/ 233/183)	22/17/14/11 (367/283/ 233/183)	27/23/18/14 (450/383/ 300/233)	27/23/18/14 (450/383/ 300/233)	37/31/24/20 (617/517/ 400/333)	37/33/26/21 (617/550/ 433/350)	37/35/28/22 (617/583/ 467/367)
Motor		W	57	57	57	57	57	127	127	127
Connections			Flare-Nut Connection (with Flare Nuts)							
Refrigerant Piping	Liquid Line	mm(in.)	Φ 6.35(1/4)	Φ 6.35(1/4)	Φ 6.35(1/4)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)
	Gas Line	mm(in.)	Φ 12.7(1/2)	Φ 12.7(1/2)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)
	Condensate Drain		VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement		m³	0.21	0.21	0.21	0.21	0.25	0.25	0.25	0.25

Adaptable Panel Model		P-AP160NA1 (without Motion Sensor)	P-AP160NAE (with Motion Sensor)
Color		Neutral White	
Outer Dimensions	Height	mm(in.)	37(1-7/16)
	Width	mm(in.)	950(37-3/8)
	Depth	mm(in.)	950(37-3/8)
Net Weight		kg(lbs.)	6.5(14)
Approximate Packing Measurement		m³	0.10

- 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°C DB (80°F DB)
19.0°C WB (66.2°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)
- Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
7°C DB (45°F DB)

Outdoor Air Inlet Temperature: 6°C WB (43°F WB)

Piping Length:7.5 Meters Piping Lift:0 Meter
2. The sound pressure level is based on following conditions.

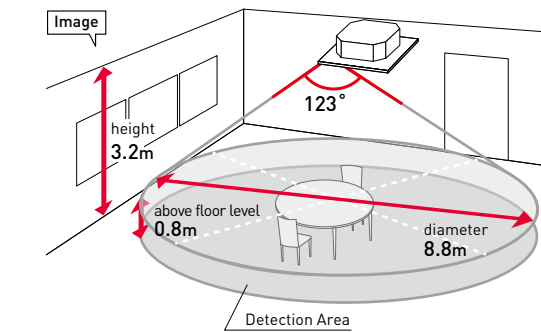
1.5 Meters Beneath the Unit.

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

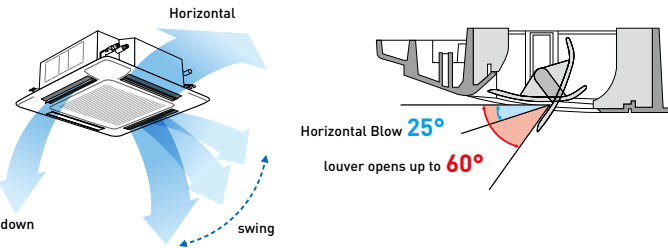
FEATURES AND BENEFITS

Adaptability

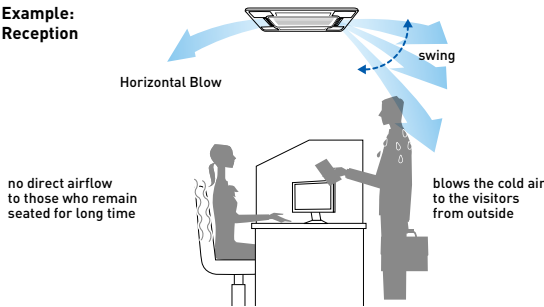
- 1) Wide Detection area of motion sensor
adjust the airflow, air volume and even temperature



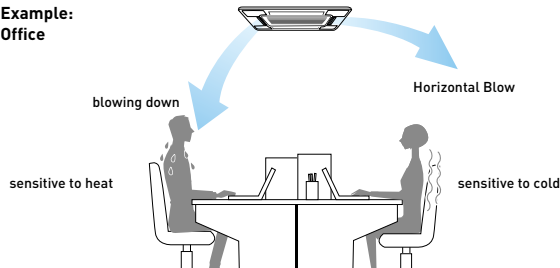
- 2) Control air flow with individual four-way louvers
more comfortable air conditioning can be achieved along each zone requirement



Example:
Reception

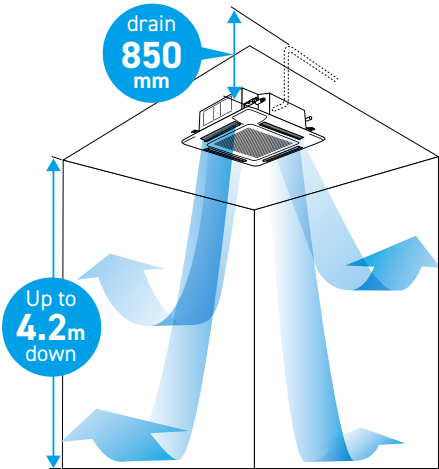


Example:
Office

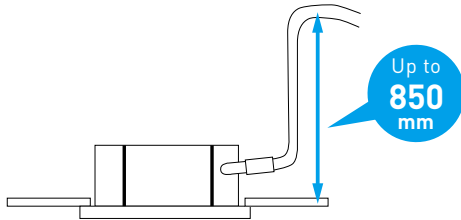


Design Flexibility

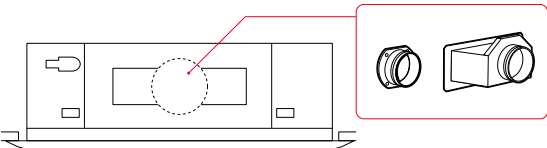
- 1) used in both narrow ceiling cavity,
and with high ceiling



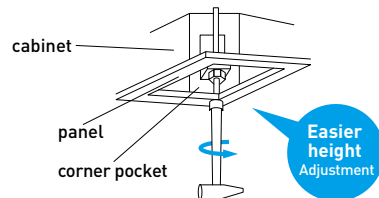
- 2) Standard drain pump with 850 mm lift



- 3) Round ducts can be attached directly

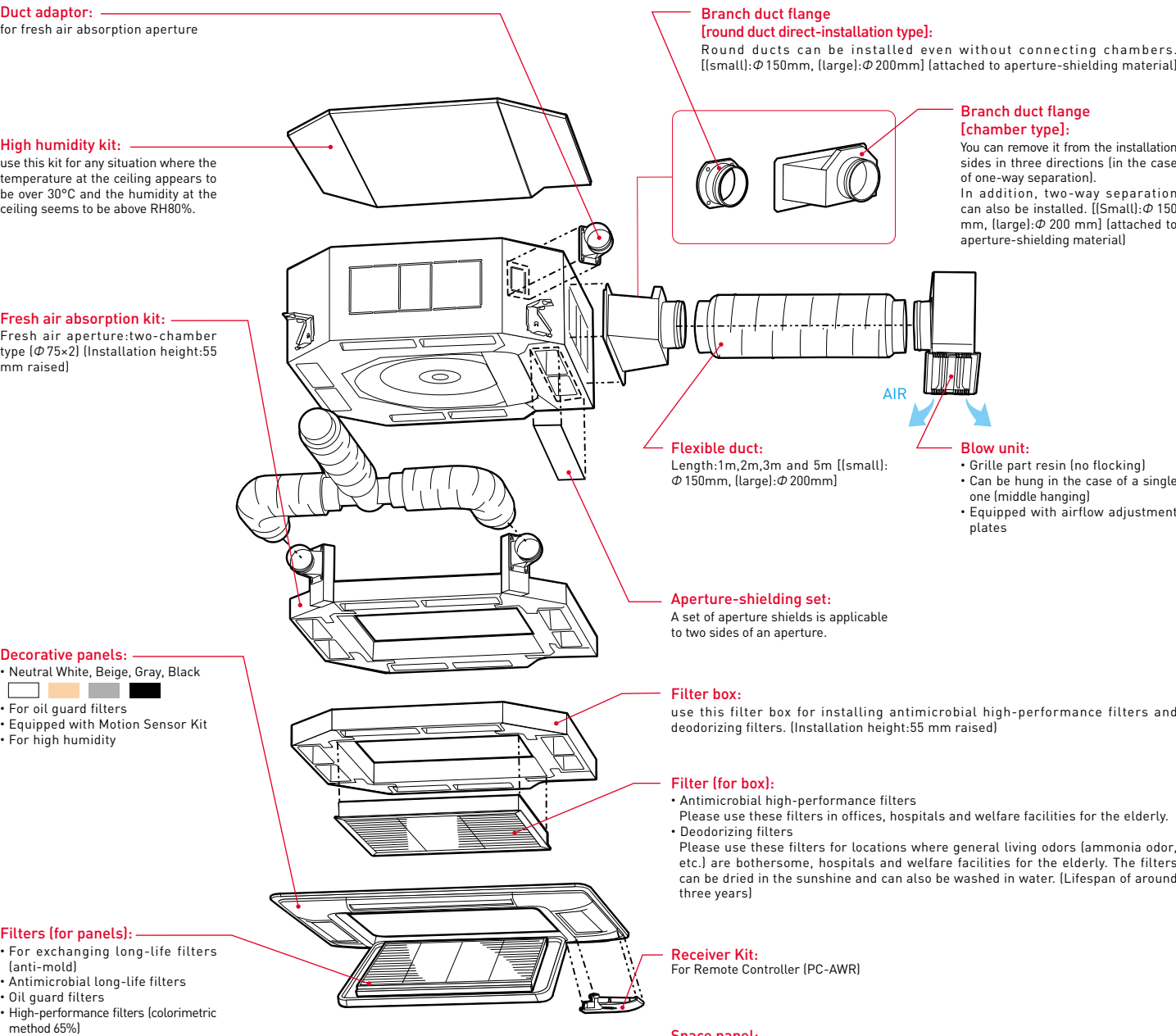


- 4) The height of the space for installing the unit can be fine-tuned



OPTIONAL PARTS

Please consult your distributors or dealers in inquiry

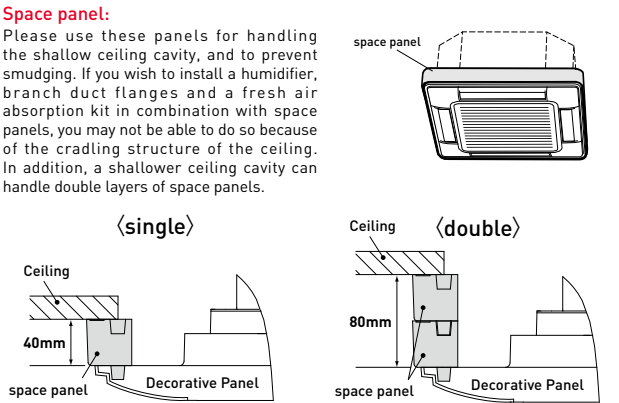


Wide panel (for renewal):

Please choose the size of the wide panel according to the measurements of an existing ceiling opening and the measurements of an already-installed indoor unit.

- Standard
- Oil guard specifications

Type	Small	Large	Ultra-large
Measurement of External form (mm)	1020*1020*12	1020*1340*12	1020*1490*12



4-way cassette compact



Application



Indoor Unit Type		4-Way Cassette (Compact) Type					
Model		RCIM-0.6FSN4	RCIM-0.8FSN4	RCIM-1.0FSN4	RCIM-1.5FSN4	RCIM-2.0FSN4	RCIM-2.5FSN4
Indoor Unit Power Supply		AC 1Φ, 230V 50Hz, 220-240V 50Hz, 220V 60Hz					
Nominal Cooling Capacity	kW[Btu/h]	1.6[5,500]	2.2[7,500]	2.8[9,600]	4.0[13,600]	5.6[19,100]	7.1[24,200]
	kW[Btu/h]	1.9[6,500]	2.5[8,500]	3.2[10,900]	4.8[16,400]	6.3[21,500]	8.5[29,000]
Sound Pressure Level (Overall A Scale) (Hi2-Hi-Me-Lo)		dB	34-30-28-24.5	36-33-29-24.5	38-34-30-24.5	41-37-33-27.5	45-39-35-31
Outer Dimensions	Height	mm[in.]	285[11-7/32]	285[11-7/32]	285[11-7/32]	285[11-7/32]	285[11-7/32]
	Width	mm[in.]	570[22-7/16]	570[22-7/16]	570[22-7/16]	570[22-7/16]	570[22-7/16]
	Depth	mm[in.]	570[22-7/16]	570[22-7/16]	570[22-7/16]	570[22-7/16]	570[22-7/16]
Net Weight		kg[lbs.]	16[35.3]	16[35.3]	16[35.3]	17[37.5]	17[37.5]
Refrigerant		R410A					
Indoor Fan	Air Flow Rate (Hi2-Hi-Me-Lo)	m³/min. [cfm]	10-8.5-7.5-6 [353-300-265-212]	11-9.5-8-6 [388-335-282-212]	12-10-8.5-6 [424-353-300-212]	13-11-9.5-7 [459-388-335-247]	15-12-10-8 [530-424-353-282]
			(565-494-424-353)				
Motor		W	57	57	57	57	57
Connections		Flare-Nut Connection (with Flare Nuts)					
Refrigerant Piping	Liquid Line	mm[in.]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 9.52[3/8]
	Gas Line	mm[in.]	Φ 12.7[1/2]	Φ 12.7[1/2]	Φ 12.7[1/2]	Φ 12.7[1/2]	Φ 15.88[5/8]
	Condensate Drain		VP25	VP25	VP25	VP25	VP25

Adaptable Panel Model		P-AP56NAM (without Motion Sensor)	
Color		Neutral White	
Outer Dimensions	Height	mm[in.]	30[1-3/16]
	Width	mm[in.]	620[24-13/32]
	Depth	mm[in.]	620[24-13/32]
Net Weight		kg[lbs.]	3[6.6]

- 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°C DB (80°F DB)
19.0°C WB (66.2°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

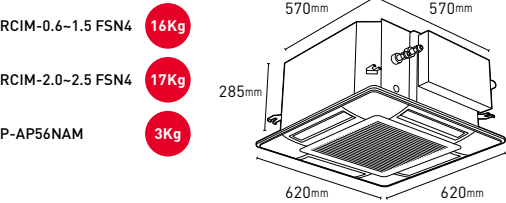
Indoor Air Inlet Temperature: 20°C DB (68°F DB)
7°C DB (45°F DB)

Outdoor Air Inlet Temperature: 6°C WB (43°F WB)

Piping Length:7.5 Meters Piping Lift:0 Meter
2. The sound pressure level is based on following conditions.
1.5 Meters 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.



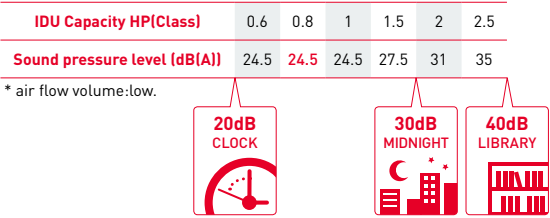
Dimensions



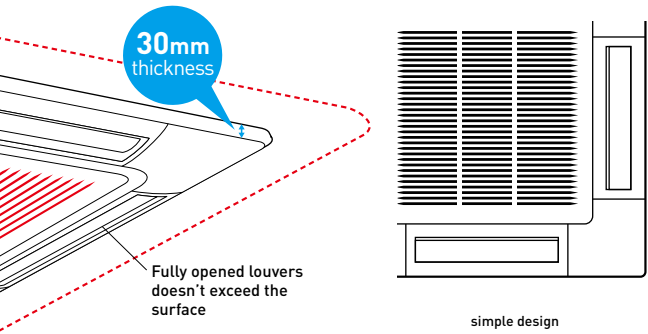
FEATURES AND BENEFITS

Adaptability

- 1) Top-class silent operation
as quiet as gentle breeze

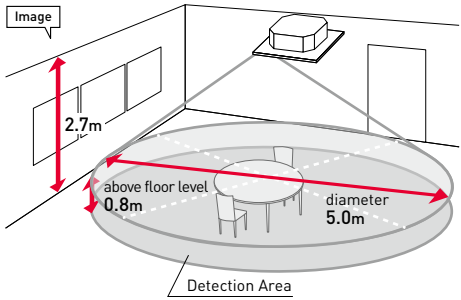


2) Aesthetics



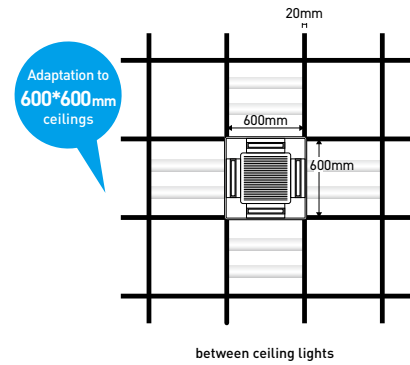
3) Wide Detection area of motion sensor

adjust temperature/ volume and air flow direction in better way



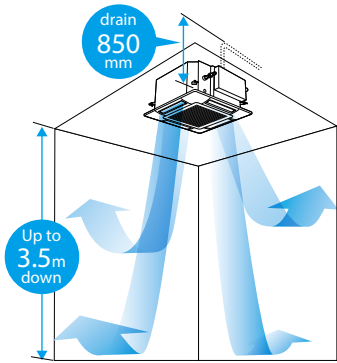
Design Flexibility

1) Compact



2) High Ceiling Available

Standard drain-pump



3) Adopting new antibacterial agent of drain pan

for the better air and easy maintenance



inhibit the generation of slime

2-way cassette



Application



Indoor Unit Type		2-Way Cassette Type								
Model		RCD-0.8FSN3	RCD-1.0FSN3	RCD-1.5FSN3	RCD-2.0FSN3	RCD-2.5FSN3	RCD-3.0FSN3	RCD-4.0FSN3	RCD-5.0FSN3	RCD-6.0FSN3
Indoor Unit Power Supply		AC 1Φ, 220-240V/50Hz, 220V/60Hz								
Nominal Cooling Capacity	kW[Btu/h]	2.2[7,500]	2.8[9,600]	4.0[13,600]	5.6[19,100]	7.1[24,200]	8.0[27,300]	11.2[38,200]	14.0[47,800]	16.0[54,300]
Nominal Heating Capacity	kW[Btu/h]	2.5[8,500]	3.2[10,900]	4.8[16,400]	6.3[21,500]	8.5[29,000]	9.0[30,700]	12.5[42,600]	16.0[54,600]	18.0[61,400]
Sound Pressure Level (Overall A Scale)[Hi2-Hi-Me-Lo]	dB	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 Dimensions	Height	mm[in.]	298[11-3/4]	298[11-3/4]	298[11-3/4]	298[11-3/4]	298[11-3/4]	298[11-3/4]	298[11-3/4]	298[11-3/4]
	Width	mm[in.]	860[33-7/8]	860[33-7/8]	860[33-7/8]	860[33-7/8]	860[33-7/8]	1,420[55-7/8]	1,420[55-7/8]	1,420[55-7/8]
	Depth	mm[in.]	630[24-13/16]	630[24-13/16]	630[24-13/16]	630[24-13/16]	630[24-13/16]	630[24-13/16]	630[24-13/16]	630[24-13/16]
Net Weight	kg[lbs.]	23[50.7]	23[50.7]	25[55.1]	25[55.1]	25[55.1]	25[55.1]	39[86.0]	39[86.0]	39[86.0]
Refrigerant		R410A (Nitrogen-Charged for Corrosion-Resistance)								
Indoor Fan	Air Flow Rate (Hi2-Hi-Me-Lo)	m³/min. (cfm)	10-9-7.5-6.5 (353-318-265-230)	11-9.5-8.5-7 (388-335-300-247)	15-13-11.5-10 (530-459-406-353)	16.5-14.5-12.5-10.5 (583-512-441-371)	18.5-16.5-14.5-12.5 (653-583-512-441)	21-18.5-16-12.5 (742-653-565-441)	30-26.5-23-20 (1,059-936-812-706)	35-31-27-21 (1,236-1,095-953-742)
			265-230	300-247	406-353	441-371	512-441	565-441	812-706	953-742
Motor	W	57	57	57	57	57	57	57 x 2	57 x 2	57 x 2
Connections		Flare-Nut Connection (with Flare Nuts)								
Refrigerant Piping	Liquid Line	mm[in.]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 9.52[3/8]	Φ 9.52[3/8]	Φ 9.52[3/8]	Φ 9.52[3/8]
	Gas Line	mm[in.]	Φ 12.7[1/2]	Φ 12.7[1/2]	Φ 12.7[1/2]	Φ 12.7[1/2]	Φ 15.88[5/8]	Φ 15.88[5/8]	Φ 15.88[5/8]	Φ 15.88[5/8]
	Condensate Drain		VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement	m³	0.24	0.24	0.24	0.24	0.24	0.24	0.36	0.36	0.36

Adaptable Panel Model		P-AP90DNA (without Motion Sensor)	P-AP160DNA (without Motion Sensor)
Color		Neutral White	
Outer Dimensions	Height	mm[in.]	30[1-3/16]
	Width	mm[in.]	1,100[43-5/16]
	Depth	mm[in.]	710[27-15/16]
Net Weight	kg[lbs.]	7.5[16.5]	10.5[23.2]
Approximate Packing Measurement	m³	0.13	0.20

- NOTES:**

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

Cooling Operation Conditions	Heating Operation Conditions
Indoor Air Inlet Temperature: 27°C DB (80°F DB)	Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 19.0°C WB (66.2°F WB)	Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
Outdoor Air Inlet Temperature: 35°C DB (95°F DB)	Outdoor Air Inlet Temperature: 6°C WB (43°F WB)

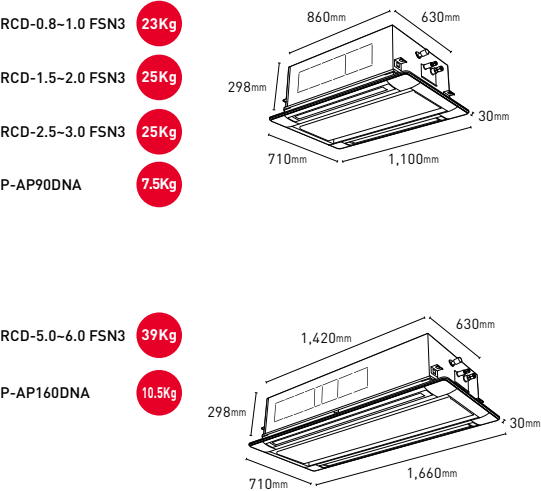
Piping Length: 7.5 Meters Piping Lift: 0 Meter
2. The sound pressure level is based on following conditions.

1.5 Meters 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.



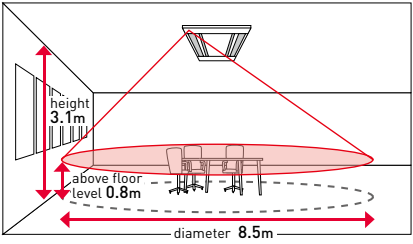
Dimensions



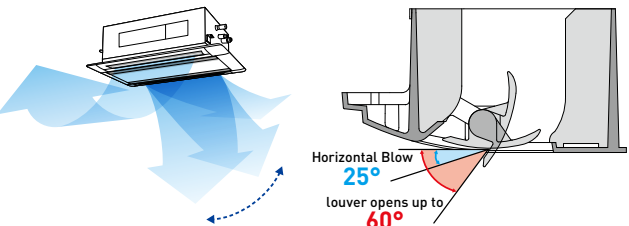
FEATURES AND BENEFITS

Adaptability

- 1) Wide Detection area of motion sensor
adjust the airflow, air volume

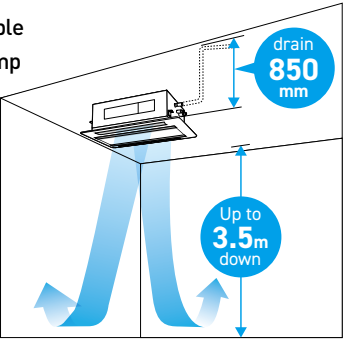


- 2) Control air flow with individual louvers
suitable environment can be achieved for each person

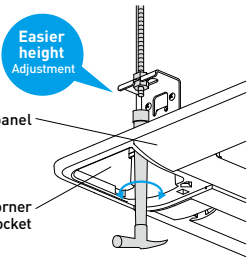


Design Flexibility

- 1) High Ceiling Available
Standard drain-pump



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



OPTIONAL PARTS

Please consult your distributors or dealers in inquiry

Flexible duct:
Length: 1m, 2m, 3m and 5m [Φ 150 mm]

Blow unit:

- Grille part resin (no flocking)
- Can be hung in the case of a single one (middle hanging)
- Equipped with airflow adjustment plates

Filter box:
use this filter box for installing antimicrobial high-performance filters and deodorizing filters. (Installation height: 83 mm raised)

Aperture-shielding set:
equipped with Branch duct flange

Branch duct flange:
in case you install the branch duct in to the cassette

Duct adaptor:
for fresh air absorption aperture

Decorative panels:
Neutral White, Beige, Gray, Black

Filters (for panels):

- For exchanging long-life filters (anti-mold)
- Antimicrobial long-life filters
- High-performance filters (colorimetric method 65%)

Receiver Kit:
For Remote Controller (PC-AWR)

Motion Sensor Kit

Wide panel (for renewal):

Please choose the size of the wide panel according to the measurements of an existing ceiling opening and the measurements of an already-installed indoor unit.

- Standard
- Oil guard specifications

Type	Small	Large
Measurement of External form (mm)	780*1580*12	780*1940*12

Space panel:

Please use these panels for handling the shallow ceiling cavity, and to prevent smudging. If you wish to install a humidifier, branch duct flanges and a fresh air absorption kit in combination with space panels, you may not be able to do so because of the cradling structure of the ceiling. In addition, a shallower ceiling cavity can handle double layers of space panels.

1-way cassette



Application



Indoor Unit Type		1-Way Cassette Type					
Model		RCS-0.8FSN	RCS-1.0FSN	RCS-1.5FSN	RCS-2.0FSN	RCS-2.5FSN	RCS-3.0FSN
Indoor Unit Power Supply		AC 1ϕ, 220-240V/50Hz, 230V/50Hz, 220V/60Hz					
Nominal Cooling Capacity		kW(Btu/h)	2.2(7,500)	2.8(9,600)	4.0(13,600)	5.6(19,100)	7.1(24,300)
Nominal Heating Capacity		kW(Btu/h)	2.5(8,500)	3.2(10,900)	4.8(16,400)	6.3(21,500)	8.5(29,000)
Sound Pressure Level (Overall A Scale) (Hi2/Hi/Me/Lo)		dB	34/32/29/27	36/34/31/28	40/37/33/31	42/38/35/31	43/40/37/33
Outer Dimensions	Height	mm(in.)	235(9-1/4)	235(9-1/4)	235(9-1/4)	235(9-1/4)	235(9-1/4)
	Width	mm(in.)	900(35-7/16)	900(35-7/16)	900(35-7/16)	900(35-7/16)	1210(47-5/8)
	Depth	mm(in.)	710(27-15/16)	710(27-15/16)	710(27-15/16)	710(27-15/16)	710(27-15/16)
Net Weight		kg(lbs.)	25(55.1)	25(55.1)	26(57.3)	33(72.8)	33(72.8)
Refrigerant		R410A					
Indoor Fan		m³/min (cfm)	8.5/7.5/6.5/6 (300/265/229/212)	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)	18.5/16.5/14.5/12.5 (653/582/512/424)
Air Flow Rate(Hi2/Hi/Me/Lo)							
Motor Output		W	50	50	50	80	80
Connections				Flare-Nut Connection (with Flare Nuts)			
Refrigerant Piping	Liquid Line	mm(in.)	ϕ 6.35(1/4)	ϕ 6.35(1/4)	ϕ 6.35(1/4)	ϕ 6.35(1/4)	ϕ 9.52(3/8)
	Gas Line	mm(in.)	ϕ 12.7(1/2)	ϕ 12.7(1/2)	ϕ 12.7(1/2)	ϕ 12.7(1/2)	ϕ 15.88(5/8)
	Condensate Drain		VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement		m³	0.25	0.25	0.25	0.32	0.32

Adaptable Panel Model		P-AP36CNA	P-AP56CNA	P-AP80CNA
Color			Neutral White	
Outer Dimensions	Height	mm(in.)	35(1-3/8)	35(1-3/8)
	Width	mm(in.)	1100(43-5/16)	1410(55-1/2)
	Depth	mm(in.)	800(31-1/2)	800(31-1/2)
Net Weight		kg(lbs.)	4.5(9.9)	6(13.2)

- 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°C DB (80°F DB)
19.0°C WB (66.2°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

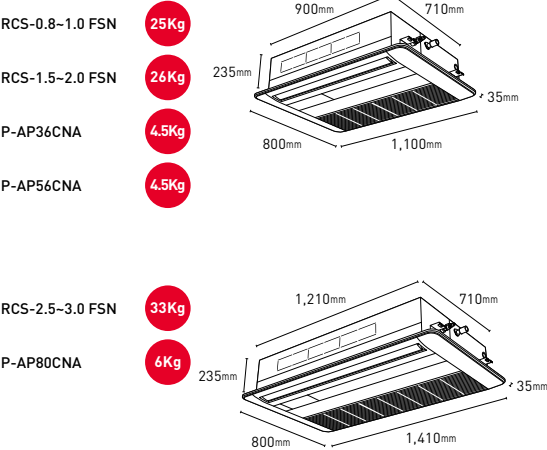
Indoor Air Inlet Temperature: 20°C DB (68°F DB)
7°C DB (45°F DB)

Outdoor Air Inlet Temperature: 6°C WB (43°F WB)

Piping Length:7.5 Meters Piping Lift:0 Meter
2. The sound pressure level is based on following conditions.
1.5 Meters 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.



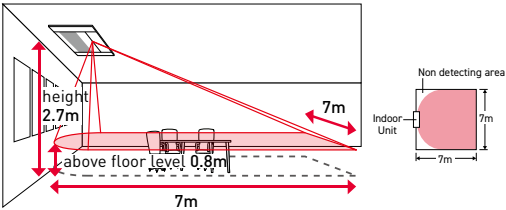
Dimensions



FEATURES AND BENEFITS

Adaptability

- 1) Wide Detection area of motion sensor
adjust the airflow, air volume

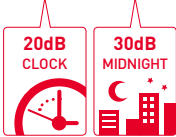


2) Quiet operation

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

IDU cooling capacity (kW)	2.2	2.8	4.0	5.6	7.1	8.0
Sound Pressure Level (dB(A))	27	28	31	31	32	33

* air flow volume:low.

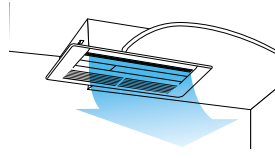


Design Flexibility

1) 3 installation types selectable

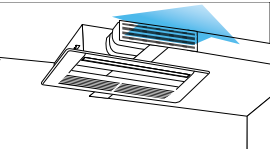
Corner type (standard)

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



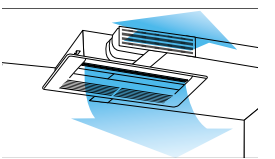
Clipped ceiling (one-way) type

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

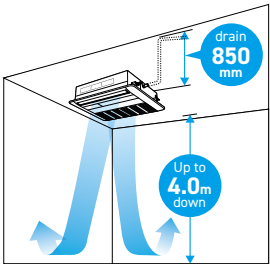


2) High Ceiling Available Standard drain-pump

IDU Capacity (HP Class)	0.8-1.3	1.5-2.5	3.0
Height (m)	3.0	3.5	4.0

* air volume:high

* standard corner type



OPTIONAL PARTS

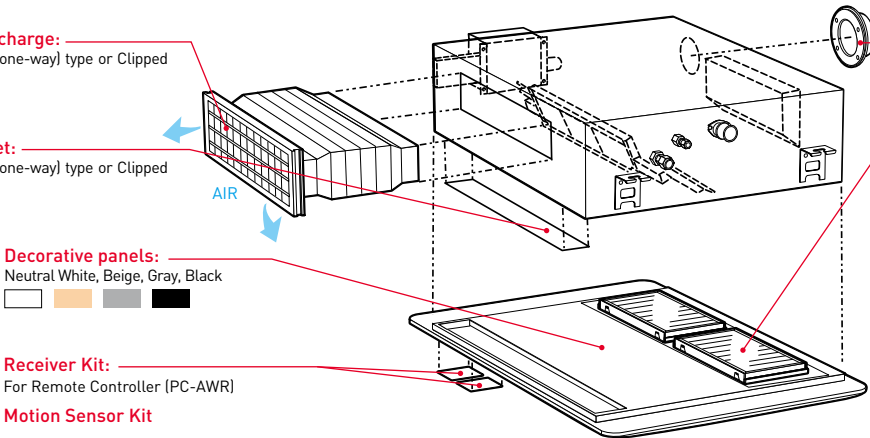
Please consult your distributors or dealers in inquiry

Grille for front air discharge:

in case of Clipped ceiling (one-way) type or Clipped ceiling (two-way) type

Aperture-shielding set:

in case of Clipped ceiling (one-way) type or Clipped ceiling (two-way) type



Duct adaptor:

for fresh air absorption aperture (ϕ 100 mm)

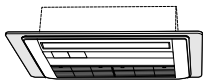
Filters (for panels):

- For exchanging long-life filters (anti-mold)
- Antimicrobial long-life filters
- High-performance filters (colorimetric method 65%)

Wide panel (for renewal):

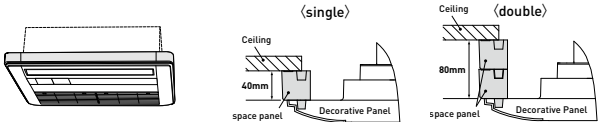
Please choose the size of the wide panel according to the measurements of an existing ceiling opening and the measurements of an already-installed indoor unit.

- Standard
- Oil guard specifications



Space panel:

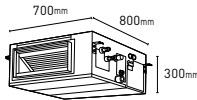
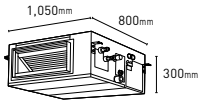
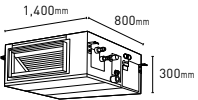
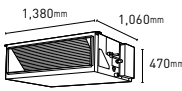
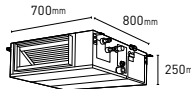
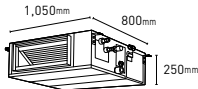
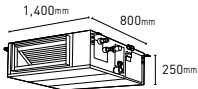
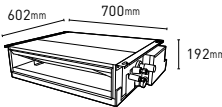
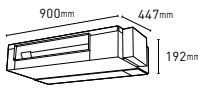
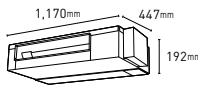
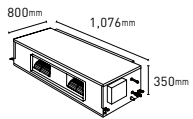
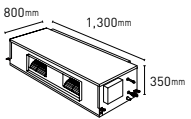
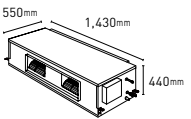
Please use these panels for handling the shallow ceiling cavity, and to prevent smudging. In addition, a shallower ceiling cavity can handle double layers of space panels.



Type	Small	Medium	Large
Measurement of External form (mm)	870*1370*12	870*1460*12	870*1520*12

Ducted

COMPARISON

Item		Capacity Range			ESP	Weight (overall scale)	Air Flow Rate (Hi2-Hi-Me-Lo) (Hi-Me-Lo)			Sound Pressure Level (Overall A Scale) (Hi2-Hi-Me-Lo) (Hi-Me-Lo)	
Unit		HP (Class)	Cooling (kW)	Btu/h	(Pa)	(kg)	(m³/min)	(cfm)	(l/S)	dB (A)	
High ESP											
 RPI-2.0 FSN3 29Kg	 RPI-2.5~3.0 FSN3 38Kg	 RPI-4.0~6.0 FSN3 48Kg	2.0 ~ 6.0	5.6 / 16.0	19.1K / 54.6K	50 - 100 - 200	29-48	14.5-13- 11-9.5 / 36-31.5- 27.5-24	512-459- 388-335 / 1,270-1,112- 970-847	242-217- 183-158 / 600-525- 458-400	41-38-35-32 / 44-40-37-34
 RPI-8.0~10.0 FSN1 94Kg			8.0 ~ 10.0	22.4 / 28.0	76.4K / 95.5K	50 - 100 - 230	94	63-58- 50-38 / 80-72- 64-48	2,224-2,048- 1,765-1,341 / 2,825-2,542- 2,260-1,695	1,050-967- 833-633 / 1,333-1,200- 1,067-800	45-43-40-36 / 50-48-46-39
Medium ESP											
 RPIM-0.8~2.0 FSN3 26-27 Kg	 RPIM-2.5~3.0 FSN3 36Kg	 RPIM-4.0~6.0 FSN3 44Kg	0.8 ~ 6.0	2.2 / 16.0	7.5K / 54.6K	50 - 100 - 150	26-44	8.5-7.5- 6.5-5.5 / 36-31.5- 27.5-24	300-265- 229-194 / 1,270-1,112- 970-847	142-125- 108-92 / 600-525- 458-400	32-30-28-27 / 43-40-37-34
Slim											
 RPIZ-0.8~1.5 FSNQS 21Kg			0.8 ~ 1.5	2.2 / 4.3	7.5K / 14.7K	10 - 30	21	8-7-6 / 10-8-7	283-247-212 / 353-283-247	133-117- 100 / 167-133- 117	27-24-21 / 31-29-27
Compact											
 RPIZ-0.8~1.5 FSN1Q 21-22 Kg	 RPIZ-1.8~2.5 FSN1Q 27Kg		0.8 ~ 1.5	2.2 / 4.3	7.5K / 14.7K	10 - 30	21-22	8-7-6 / 10-8-7	283-247-212 / 353-283-247	133-117- 100 / 167-133- 117	27-24-21 / 31-29-26
Larger Air Volume											
 RPI-3.0~4.0 FSN2SQ 52-57 Kg	 RPI-5.0~6.0 FSN2SQ 61-63 Kg	 RPI-7.0 FSN2SQ 75Kg	3.0 ~ 7.0	8.0 / 18.0	27.3K / 61.4K	70 - 140	52-75	29-26-20 / 65-57-46	1,036-929- 714 / 2,321-2,036- 1,643	483-433- 333 / 1,083-950- 767	46-44-40 / 51-47-42



High ESP (External Static Pressure)

Indoor Unit Type			Ducted (High ESP type)							
Model			RPI-2.0FSN3	RPI-2.5FSN3	RPI-3.0FSN3	RPI-4.0FSN3	RPI-5.0FSN3	RPI-6.0FSN3	RPI-8.0FSN1	RPI-10.0FSN1
Indoor Unit Power Supply			AC 1Φ , 220-240V / 50Hz, 220V / 60Hz							
Nominal Cooling Capacity		kW	5.6	7.1	8.0	11.2	14.0	16.0	22.4	28.0
Nominal Heating Capacity		kW	6.3	8.5	9.0	12.5	16.0	18.0	25.0	31.5
Sound Pressure Level[Overall A Scale][Hi2-Hi-Me-Lo]		dB	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 Level[Overall A Scale][Hi2-Hi-Me-Lo]		dB	59-56-53-50	55-53-50-48	57-54-51-49	58-55-52-50	60-57-54-51	62-58-55-52	65-63-60-57	68-65-62-59
Outer Dimensions	Height	mm	300	300	300	300	300	300	470	470
	Width	mm	700	1,050	1,050	1,400	1,400	1,400	1,380	1,380
	Depth	mm	800	800	800	800	800	800	1,060	1,060
Net Weight		kg	29	38	38	48	48	48	94	94
Refrigerant			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			Flare-Nut Connection (with Flare Nuts)							
Refrigerant Piping	Liquid Line	mm[in.]	Φ 6.35(1/4)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)
	Gas Line	mm[in.]	Φ 12.7(1/2)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 19.05(3/4)	Φ 22.2(7/8)
	Condensate Drain		VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement		m³	0.28	0.39	0.39	0.50	0.50	0.50	0.97	0.97

- NOTES:

1.The nominal cooling capacity is the combined capacity of the Hitachi standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

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

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
7°C DB (45°F DB)
6°C WB (43°F WB)

Piping Length: 7.5 Meters
Piping Lift: 0 Meter
2. The sound pressure level is based on following conditions.
1.5 Meters Beneath the Unit. With Discharge Duct (2.0m) and Return Duct (1.0m). Voltage of the power source for the indoor fan motor is 220V. 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 [High Pressure Setting1 - High Pressure Setting2]" values when a filter is not used. The sound pressure level is based on the Standard Pressure Setting.



Medium ESP (External Static Pressure)

Indoor Unit Type			Ducted (Medium ESP type)								
Model			RPIM-0.8FSN3	RPIM-1.0FSN3	RPIM-1.5FSN3	RPIM-2.0FSN3	RPIM-2.5FSN3	RPIM-3.0FSN3	RPIM-4.0FSN3	RPIM-5.0FSN3	RPIM-6.0FSN3
Indoor Unit Power Supply			AC 1Φ , 220-240V / 50Hz, 220V / 60Hz								
Nominal Cooling Capacity		kW	2.2	2.8	4.0	5.6	7.1	8.0	11.2	14.0	16.0
Nominal Heating Capacity		kW	2.5	3.2	4.8	6.3	8.5	9.0	12.5	16.0	18.0
Sound Pressure Level (Overall A Scale)(Hi2-Hi-Me-Lo)		dB	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 Level (Overall A Scale)(Hi2-Hi-Me-Lo)		dB	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	Height	mm	250	250	250	250	250	250	250	250	250
	Width	mm	700	700	700	700	1,050	1,050	1,400	1,400	1,400
	Depth	mm	800	800	800	800	800	800	800	800	800
Net Weight		kg	26	26	27	27	36	36	44	44	44
Refrigerant			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(1059-935- 812-706)	33.5-29.5-26- 22(1182-1041- 917-776)	36-31.5-27.5- 24(1270-1112- 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			Flare-Nut Connection (with Flare Nuts)								
Refrigerant Piping	Liquid Line	mm[in.]	Φ 6.35(1/4)	Φ 6.35(1/4)	Φ 6.35(1/4)	Φ 6.35(1/4)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)
	Gas Line	mm[in.]	Φ 12.7(1/2)	Φ 12.7(1/2)	Φ 12.7(1/2)	Φ 12.7(1/2)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)
	Condensate Drain		VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement		m³	0.24	0.24	0.24	0.24	0.33	0.33	0.42	0.42	0.42

- NOTES:

1.The nominal cooling capacity is the combined capacity of the Hitachi standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

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

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
7°C DB (45°F DB)
6°C WB (43°F WB)

Piping Length: 7.5 Meters
Piping Lift: 0 Meter
2. The sound pressure level is based on following conditions.
1.5 Meters Beneath the Unit. With Discharge Duct (2.0m) and Return Duct (1.0m). Voltage of the power source for the indoor fan motor is 220V. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

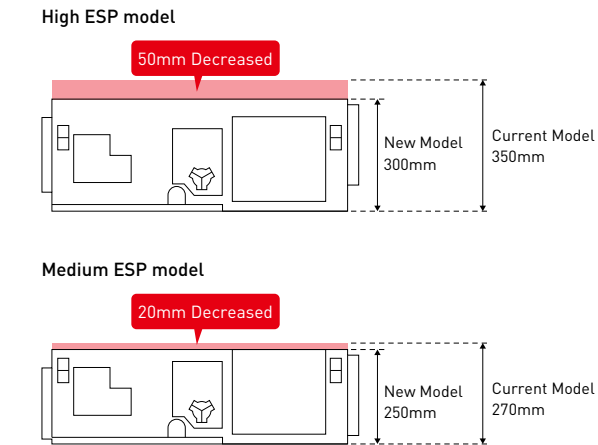
3. The data for external pressure *3) indicates "Standard Pressure Setting [High Pressure Setting1 - High Pressure Setting2]" values when a filter is not used. The sound pressure level is based on the Standard Pressure Setting.



FEATURES AND BENEFITS OF HIGH ESP / MEDIUM ESP MODEL

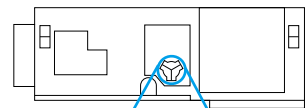
Design Flexibility

1) Powerful yet small

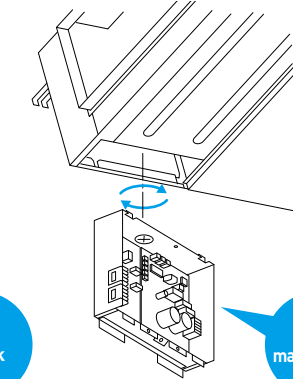


Maintenance Ease

1) Adopting Side Cover for Drain Pan

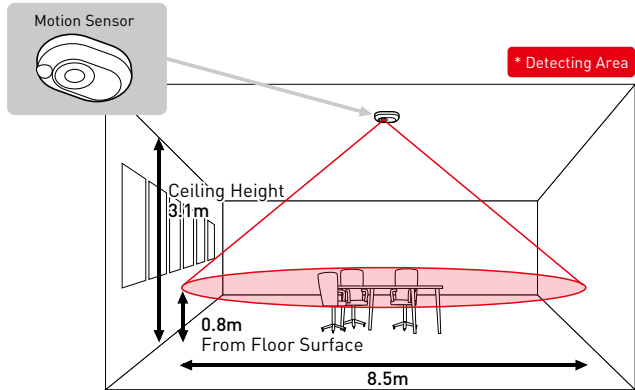


2) Changeable Mounting Position for Electrical Box

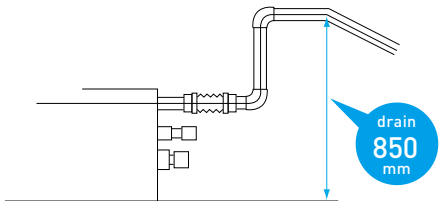


Adaptability

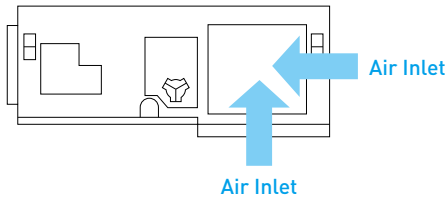
1) Wide Detection area of motion sensor



2) Standard drain pump with 850 mm lift

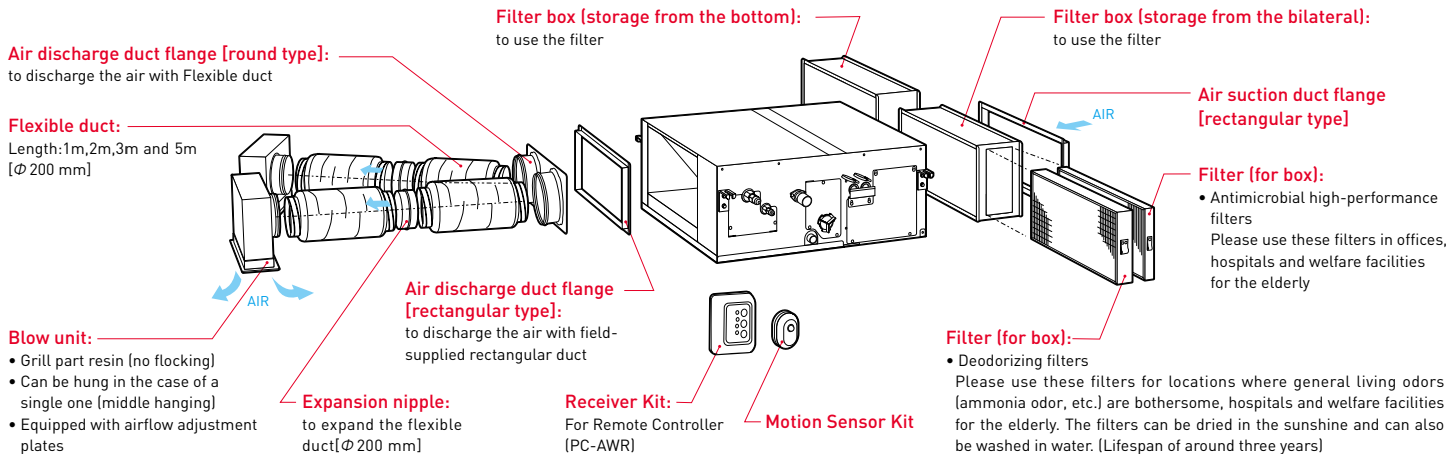


3) Air Inlet



OPTIONAL PARTS

Please consult your distributors or dealers in inquiry



Slim

Indoor Unit Type		Ducted (slim) type			
Model		RPIZ-0.8FSNQ5/P	RPIZ-1.0FSNQ5/P	RPIZ-1.3FSNQ5/P	RPIZ-1.5FSNQ5/P
Indoor Unit Power Supply		AC 1Φ, 220V ~ 50Hz			
Nominal Cooling Capacity	kW	2.3	2.9	3.8	4.4
	kcal/h	2,000	2,500	3,300	3,800
	Btu/h	7,900	9,900	13,000	15,100
Nominal Heating Capacity	kW	2.8	3.3	4.2	4.9
	kcal/h	2,400	2,800	3,600	4,200
	Btu/h	9,500	11,100	14,300	16,700
Sound Pressure Level(Overall A Scale)		27-24-21	27-24-21	31-29-27	31-29-27
Outer Dimensions	Height	mm[in.]	192(7.56)	192(7.56)	192(7.56)
	Width	mm[in.]	700(27.56)	700(27.56)	700(27.56)
	Depth	mm[in.]	602(23.7)	602(23.7)	602(23.7)
Net Weight		kg[lbs.]	21(46)	21(46)	21(46)
Refrigerant		R410A(Nitrogen-Charged for Corrosion-Resistance)			
Indoor Fan	Air Flow Rate[Hi/Me/Lo]	m ³ /min	8/7/6	8/7/6	10/8/7
External Pressure *3)		Pa	10/30	10/30	10/30
Motor		W	15	15	25
Connections		Flare-Nut Connection (with Flare Nuts)			
Refrigerant Piping	Liquid Line	mm[in.]	Φ 6.35(1/4)	Φ 6.35(1/4)	Φ 6.35(1/4)
	Gas Line	mm[in.]	Φ 12.7(1/2)	Φ 12.7(1/2)	Φ 12.7(1/2)
	Condensate Drain		VP25	VP25	VP25
Approximate Packing Measurement		m ³	0.15	0.15	0.15

NOTES:
1.The nominal cooling capacity is the combined capacity of the Hitachi standard split system, and is based on the JIS standard B8616.
Cooling Operation Conditions
Indoor Air Inlet Temperature: 27°C DB (80°F DB)
19.0°C WB (66.2°F WB)
Outdoor Air Inlet Temperature: 35°C DB (95°F DB)
Heating Operation Conditions
Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)
Piping Length: 7.5 Meters
Piping Lift: 0 Meter
2. The sound pressure level is based on following conditions. 1 Meter Beneath the Unit and 1 Meter from Discharge Grille. Voltage of the power source for the indoor fan motor is 220V. In case of the power source of 240V, the sound pressure level increases by about 1 dB. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
3. *3) In case of using R407C or R22, use the accessory adaptor and φ19.05 piping .



Compact

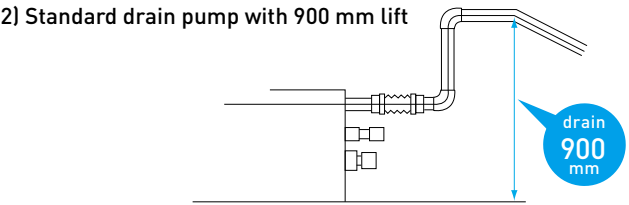
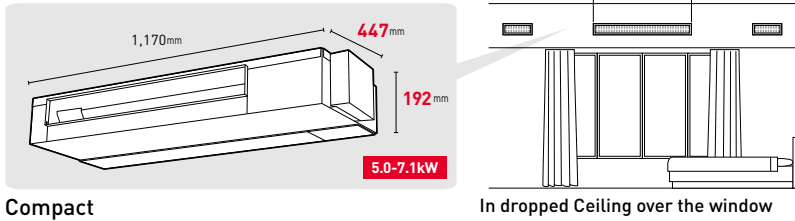
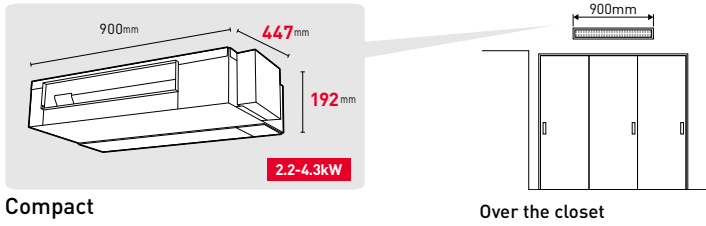
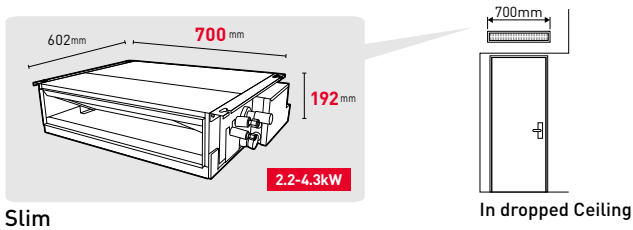
Indoor Unit Type		Ducted (compact) type						
Model		RPIZ-0.8FSN1Q/P	RPIZ-1.0FSN1Q/P	RPIZ-1.3FSN1Q/P	RPIZ-1.5FSN1Q/P	RPIZ-1.8FSN1Q/P	RPIZ-2.0FSN1Q/P	RPIZ-2.3FSN1Q/P
Indoor Unit Power Supply		AC 1Φ, 220-240V / 50Hz, 220V / 60Hz						
Nominal Cooling Capacity	kW	2.2	2.8	3.6	4.3	5.0	5.6	6.3
	kcal/h	1,900	2,400	3,100	3,700	4,300	4,800	5,400
	Btu/h	7,500	9,500	12,300	14,700	17,100	19,100	21,500
Nominal Heating Capacity	kW	2.8	3.3	4.2	4.9	5.6	6.5	7.5
	kcal/h	2,400	2,800	3,600	4,200	4,800	5,600	6,500
	Btu/h	9,600	11,100	14,300	16,700	19,100	22,200	25,600
Sound Pressure Level(Overall A Scale)		27-24-21	27-24-21	31-29-26	31-29-26	34-30-28	34-30-28	35-33-30
Outer Dimensions	Height	mm[in.]	192(7-9/16)	192(7-9/16)	192(7-9/16)	192(7-9/16)	192(7-9/16)	192(7-9/16)
	Width	mm[in.]	900(35-7/16)	900(35-7/16)	900(35-7/16)	900(35-7/16)	1,170(46-1/16)	1,170(46-1/16)
	Depth	mm[in.]	447(17-19/32)	447(17-19/32)	447(17-19/32)	447(17-19/32)	447(17-19/32)	447(17-19/32)
Net Weight		kg[lbs.]	21(46)	21(46)	22(48)	22(48)	27(59)	27(59)
Refrigerant		R410A(Nitrogen-Charged for Corrosion-Resistance)						
Indoor Fan	Air Flow Rate[Hi/Me/Lo]	m ³ /min.[cfm]	8/7/6 (283/247/212)	8/7/6 (283/247/212)	10/8/7 (353/283/247)	10/8/7 (353/283/247)	14.5/12.5/10.5 (512/442/371)	14.5/12.5/10.5 (512/442/371)
External Pressure *3)		Pa	10(30)	10(30)	10(30)	10(30)	10(30)	10(30)
Motor		W	16	16	25	25	40	50
Connections		Flare-Nut Connection (with Flare Nuts)						
Refrigerant Piping	Liquid Line	mm[in.]	Φ 6.35(1/4)	Φ 6.35(1/4)	Φ 6.35(1/4)	Φ 6.35(1/4)	Φ 6.35(1/4)	Φ 9.53(3/8)
	Gas Line	mm[in.]	Φ 12.7(1/2)	Φ 12.7(1/2)	Φ 12.7(1/2)	Φ 12.7(1/2)	Φ 15.88(5/8)	Φ 15.88(5/8)
	Condensate Drain		VP25	VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement		m ³	0.15	0.15	0.15	0.15	0.18	0.18

NOTES:
1.The nominal cooling capacity is the combined capacity of the Hitachi standard split system, and is based on the JIS standard B8616.
Cooling Operation Conditions
Indoor Air Inlet Temperature: 27°C DB (80°F DB)
19.0°C WB (66.2°F WB)
Outdoor Air Inlet Temperature: 35°C DB (95°F DB)
Heating Operation Conditions
Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)
Piping Length: 7.5 Meters
Piping Lift: 0 Meter
2. The sound pressure level is based on following conditions. 1.5 Meters Beneath the Unit. With Discharge Duct (2.0m) and Return Duct (1.0m). 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 dB. 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."

FEATURES AND BENEFITS OF SLIM / COMPACT MODEL

Design Flexibility

1) Slim & compact design



Adaptability

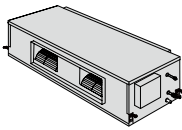
Quiet Operation

Cooling capacity (kW)	slim	2.2	3.6		
	compact	2.2	3.6	5.0	6.3
Sound Pressure Level (dB(A))		21	26	28	30

* air flow volume:low.



Larger Air Volume



Indoor Unit Type		Ducted (Larger air volume) type				
Model		RPI-3.0FSN2SQ	RPI-4.0FSN2SQ	RPI-5.0FSN2SQ	RPI-6.0FSN2SQ	RPI-7.0FSN2SQ
Indoor Unit Power Supply		AC 1Φ, 220-240V / 50Hz, 220V / 60Hz				
Nominal Cooling Capacity	kW	8.0	11.2	14.0	16.0	18.0
Nominal Heating Capacity	kW	9.0	12.5	16.0	18.0	20.0
Sound Pressure Level (Overall A Scale) (Hi/Me/Lo)	High Pressure Setting	dB	46/44/40	48/45/41	49/46/43	53/49/45
	Standard Pressure Setting	dB	45/43/39	47/44/40	48/45/42	52/48/44
Outer Dimensions	Height	mm(in.)	350(13-3/4)	350(13-3/4)	350(13-3/4)	440(17-5/16)
	Width	mm(in.)	1,076(42-3/8)	1,076(42-3/8)	1,300(51-3/16)	1,300(51-3/16)
	Depth	mm(in.)	800(31-1/2)	800(31-1/2)	800(31-1/2)	550(21-5/8)
Net Weight	kg(lbs.)	52(115)	57(126)	61(135)	63(139)	75(165)
Refrigerant		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)
	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)
Air Flow Rate (Hi/Me/Lo)						-
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 (with Flare Nuts)				
Refrigerant Piping	Liquid Line	mm(in.)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)	Φ 9.52(3/8)
	Gas Line	mm(in.)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)	Φ 15.88(5/8)
	Condensate Drain		VP25	VP25	VP25	VP25
Approximate Packing Measurement	m³	0.49	0.49	0.57	0.57	0.54

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°C DB (80°F DB)
19.0°C WB (66.2°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)

Piping Length: 7.5 Meters
Piping Lift: 0 Meter

2. The sound pressure level is based on following conditions. 1.5 Meters Beneath the Unit. With Discharge Duct (2.0m) and Return Duct (1.0m). 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 2 dB. 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. 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.



Floor Exposed



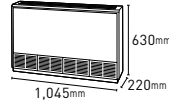


Application

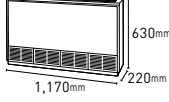


Dimensions

RPF-1.0FSN2E **25Kg**



RPF-1.5FSN2E **28Kg**



Features

- Suitable for installation beneath a window perfectly thanks to only 630mm height
- Smaller footprint

Indoor Unit Type		Floor Exposed Type	
Model		RPF-1.0FSN2E	RPF-1.5FSN2E
Indoor Unit Power Supply		AC 1Φ , 220-240V/50Hz, 220V/60Hz	
Nominal Cooling Capacity	kW	2.8	4.0
	kcal/h	2,400	3,400
	Btu/h	9,600	13,600
Nominal Heating Capacity	kW	3.2	4.8
	kcal/h	2,800	4,100
	Btu/h	10,900	16,400
Sound Pressure Level (Overall A Scale)		35-32-29	38-35-31
Cabinet Color		Spring White	
Outer Dimensions	Height	mm[in.] 630[24-13/16]	630[24-13/16]
	Width	mm[in.] 1,045[41-1/8]	1,170[46-1/16]
	Depth	mm[in.] 220[8-11/16]	220[8-11/16]
Net Weight		25[55]	28[62]
Refrigerant		R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance)	
Indoor Fan	Air Flow Rate [Hi/Me/Lo]	m³/min.[cfm] 8.5/7/6[300/247/212]	12/10/9[424/353/318]
	Motor	W 20	28
Connections		Flare-Nut Connection (with Flare Nuts)	
Refrigerant Piping	Liquid Line	mm[in.] Φ 6.35[1/4]	Φ 6.35[1/4]
	Gas Line	mm[in.] Φ 12.7[1/2]	Φ 12.7[1/2]
	Condensate Drain	Φ 18.5 OD	Φ 18.5 OD
Approximate Packing Measurement		m³ 0.22	0.24
Standard Accessories		-	

Floor Concealed



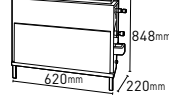


Application

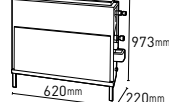


Dimensions

RPFI-1.0FSN2E **19Kg**



RPFI-1.5FSN2E **23Kg**



Features

- Little installation space required thanks to only 220mm depth
- Only suction and discharge grilles visible (indoor aesthetics remains)

Indoor Unit Type		Floor Concealed Type	
Model		RPFI-1.0FSN2E	RPFI-1.5FSN2E
Indoor Unit Power Supply		AC 1Φ , 220-240V/50Hz, 220V/60Hz	
Nominal Cooling Capacity	kW	2.8	4.0
	kcal/h	2,400	3,400
	Btu/h	9,600	13,600
Nominal Heating Capacity	kW	3.2	4.8
	kcal/h	2,800	4,100
	Btu/h	10,900	16,400
Sound Pressure Level (Overall A Scale)		35-32-29	38-35-31
Cabinet Color		-	-
Outer Dimensions	Height	mm[in.] 620[24-7/16]	620[24-7/16]
	Width	mm[in.] 848[33-5/8]	973[38-5/16]
	Depth	mm[in.] 220[8-11/16]	220[8-11/16]
Net Weight		19[42]	23[51]
Refrigerant		R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance)	
Indoor Fan	Air Flow Rate [Hi/Me/Lo]	m³/min.[cfm] 8.5/7/6[300/247/212]	12/10/9[424/353/318]
	Motor	W 20	28
Connections		Flare-Nut Connection (with Flare Nuts)	
Refrigerant Piping	Liquid Line	mm[in.] Φ 6.35[1/4]	Φ 6.35[1/4]
	Gas Line	mm[in.] Φ 12.7[1/2]	Φ 12.7[1/2]
	Condensate Drain	Φ 18.5 OD	Φ 18.5 OD
Approximate Packing Measurement		m³ 0.22	0.23
Standard Accessories		-	

OD: Outer Diameter

NOTES:

1.The nominal cooling capacity is the combined capacity of the Hitachi standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions
Indoor Air Inlet Temperature: 27°C DB (80°F DB)
19.0°C WB (66.2°F WB)
Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions
Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)
Piping Length: 7.5 Meters Piping Lift: 0 Meter

2. The sound pressure level is based on following conditions.
1 meter from the unit.
1 meter from floor level.
Voltage of the power source for the indoor fan motor is 220V.
The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

Floor / Ceiling Convertible



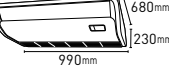


Application



Dimensions

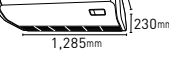
RPFC-1.8~2.0FSNQ **31Kg**



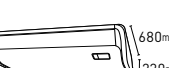
RPFC-2.3~2.5FSNQ **32Kg**



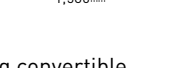
RPFC-3.0FSNQ **39Kg**



RPFC-3.3FSNQ **40Kg**



RPFC-4.0FSNQ **41Kg**



RPFC-5.0FSNQ **47Kg**



Features

- literally Floor / Ceiling convertible
- Drain-pump (Optional)
- Fresh Air In-take Design

Indoor Unit Type			Floor Ceiling Convertible Type							
Model			RPFC-1.8FSNQ	RPFC-2.0FSNQ	RPFC-2.3FSNQ	RPFC-2.5FSNQ	RPFC-3.0FSNQ	RPFC-3.3FSNQ	RPFC-4.0FSNQ	RPFC-5.0FSNQ
Indoor Unit Power Supply			AC 1ϕ , 220-240V/50Hz, 220V/60Hz							
Nominal Cooling Capacity	kW		5.0	5.6	6.3	7.1	8.4	9.0	11.2	14.2
	kcal/h		4,300	4,800	5,400	6,100	7,200	7,700	9,600	12,200
	Btu/h		17,100	19,100	21,500	24,200	28,700	30,700	38,200	48,500
Nominal Heating Capacity	kW		5.6	6.5	7.5	8.5	9.6	10.0	13.0	16.3
	kcal/h		4,800	5,600	6,500	7,300	8,300	8,600	11,200	14,000
	Btu/h		19,100	22,000	25,600	29,000	32,800	34,100	44,400	55,600
Sound Pressure Level (Overall A Scale)		dB	[ceiling] 39-35-30 [Floor] 43-38-35	[ceiling] 39-35-30 [Floor] 43-38-35	[ceiling] 45-41-37 [Floor] 48-44-40	[ceiling] 45-41-37 [Floor] 48-44-40	43-39-34 46-41-37	45-40-36 48-43-39	51-46-40 54-49-43	50-46-42 55-50-46
Outer Dimensions	Height	mm(in.)	230(9)	230(9)	230(9)	230(9)	230(9)	230(9)	230(9)	230(9)
	Width	mm(in.)	990(39)	990(39)	990(39)	990(39)	1,285(50-3/5)	1,285(50-3/5)	1,285(50-3/5)	1,580(62-1/5)
	Depth	mm(in.)	680(26-3/4)	680(26-3/4)	680(26-3/4)	680(26-3/4)	680(26-3/4)	680(26-3/4)	680(26-3/4)	680(26-3/4)
Net Weight		kg(lbs.)	31(68)	31(68)	32(70)	32(70)	39(86)	40(88)	41(90)	47(103)
Refrigerant			R410A(Nitrogen-Charged for Corrosion-Resistance)							
Indoor Fan	Air Flow Rate (Hi/Me/Lo)	m³/min	780/660/540 [459/389/318]	780/660/540 [459/389/318]	966/840/678 [569/495/399]	966/840/678 [569/495/399]	1,092/912/732 [643/537/431]	1,164/978/798 [685/576/470]	1,488/1,230/978 [876/724/576]	1,980/1,680/1,380 [1,166/989/812]
Motor		W	40	40	70	70	70	80	130	160
Connections			Flare-Nut Connection (with Flare Nuts)							
Refrigerant Piping	Liquid Line	mm(in.)	ϕ 6.35(1/4)	ϕ 6.35(1/4)	ϕ 6.35(1/4)	ϕ 6.35(1/4)	ϕ 9.53(3/8)	ϕ 9.53(3/8)	ϕ 9.53(3/8)	ϕ 9.53(3/8)
	Gas Line	mm(in.)	ϕ 15.88(5/8)	ϕ 15.88(5/8)	ϕ 15.88(5/8)	ϕ 15.88(5/8)	ϕ 15.88(5/8)	ϕ 15.88(5/8)	ϕ 15.88(5/8)	ϕ 15.88(5/8)
Condensate Drain			VP25							
Approximate Packing Measurement		m³	0.31	0.31	0.31	0.31	0.40	0.40	0.40	0.40

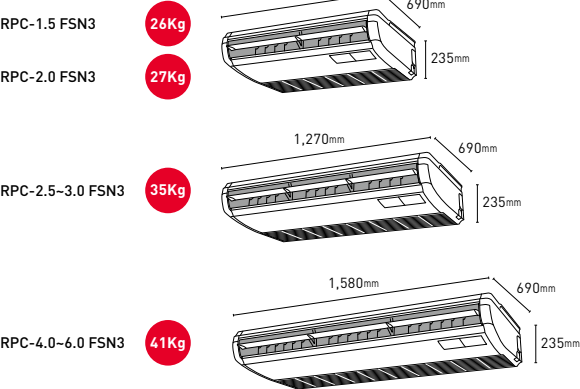
Ceiling Suspended



Application



Dimensions



Indoor Unit Type		Ceiling Suspended Type						
Model		RPC-1.5FSN3	RPC-2.0FSN3	RPC-2.5FSN3	RPC-3.0FSN3	RPC-4.0FSN3	RPC-5.0FSN3	RPC-6.0FSN3
Indoor Unit Power Supply		AC 1Φ, 220-240V/50Hz, 220V/60Hz						
Nominal Cooling Capacity	kW[Btu/h]	4.0[13,600]	5.6[19,100]	7.1[24,200]	8.0[27,300]	11.2[38,200]	14.0[47,800]	16.0[54,600]
Nominal Heating Capacity	kW[Btu/h]	4.8[16,400]	6.3[21,500]	8.5[29,000]	9.0[30,700]	12.5[42,600]	16.0[54,600]	18.0[61,400]
Sound Pressure Level [Overall A Scale] [Hi2/Hi/Me/Lo]	dB	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
Cabinet Color		Neutral White						
Outer Dimensions	Height	mm[in.]	235[9-1/4]	235[9-1/4]	235[9-1/4]	235[9-1/4]	235[9-1/4]	235[9-1/4]
	Width	mm[in.]	960[37-4/5]	960[37-4/5]	1270[50]	1270[50]	1580[62-1/5]	1580[62-1/5]
	Depth	mm[in.]	690[27-1/5]	690[27-1/5]	690[27-1/5]	690[27-1/5]	690[27-1/5]	690[27-1/5]
Net Weight	kg[lbs.]	26[57]	27[60]	35[78]	35[78]	41[91]	41[91]	41[91]
Refrigerant		R410A						
Indoor Fan	Air Flow Rate [Hi2/Hi/Me/Lo]	m³/min.[l/s]	15/13/11/9 (530/459/388/318)	15/13/11/9 (530/459/388/318)	19/16.5/14/11.5 (671/582/494/406)	21/18.5/15.5/12.5 (741/653/547/441)	30/26.5/22/17 (1059/935/777/600)	35/31/25.5/20(1236 /1094/900/706)
			50	50	80	80	160	160
Connections			Flare-Nut Connection (with Flare Nuts)					
Refrigerant Piping	Liquid Line	mm[in.]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 9.52[3/8]	Φ 9.52[3/8]	Φ 9.52[3/8]	Φ 9.52[3/8]
	Gas Line	mm[in.]	Φ 12.7[1/2]	Φ 15.88[5/8]	Φ 15.88[5/8]	Φ 15.88[5/8]	Φ 15.88[5/8]	Φ 15.88[5/8]
	Condensate Drain		VP20	VP20	VP20	VP20	VP20	VP20
Approximate Packing Measurement	m³	0.23	0.23	0.31	0.31	0.38	0.38	0.38

NOTES:

1.The 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°C DB (80°F DB)
19.0°C WB (66.2°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
7°C DB (45°F DB)

Outdoor Air Inlet Temperature: 6°C WB (43°F WB)

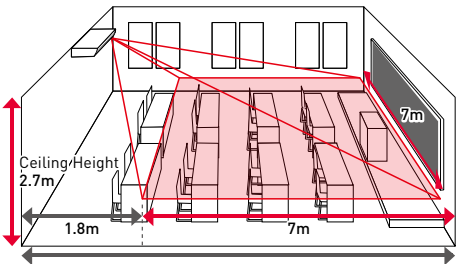
Piping Length:7.5 Meters Piping Lift:0 Meter

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

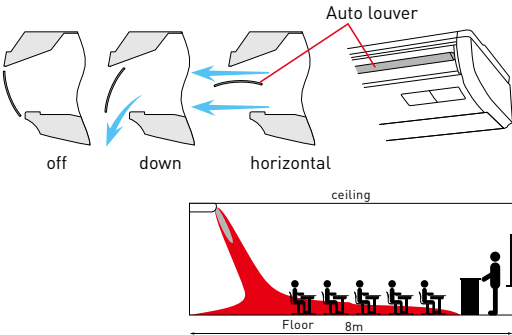
FEATURES AND BENEFITS

Adaptability

1) Wide Detection area of motion sensor



2) Auto louver



3) Quiet operation

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

Cooling capacity (kW)	4.0	8.0	11.2	14.0
Sound Pressure Level (dB(A))	28	29	32	35

* air flow volume: low.



OPTIONAL PARTS

Please consult your distributors or dealers in inquiry

Filter (for box):

- Antimicrobial high-performance filters
Please use these filters in offices, hospitals and welfare facilities for the elderly.
- Deodorizing filters
Please use these filters for locations where general living odors (ammonia odor, etc.) are bothersome, hospitals and welfare facilities for the elderly. The filters can be dried in the sunshine and can also be washed in water. (Lifespan of around three years)

Receiver Kit:
For Remote Controller (PC-AWR)

Motion Sensor Kit

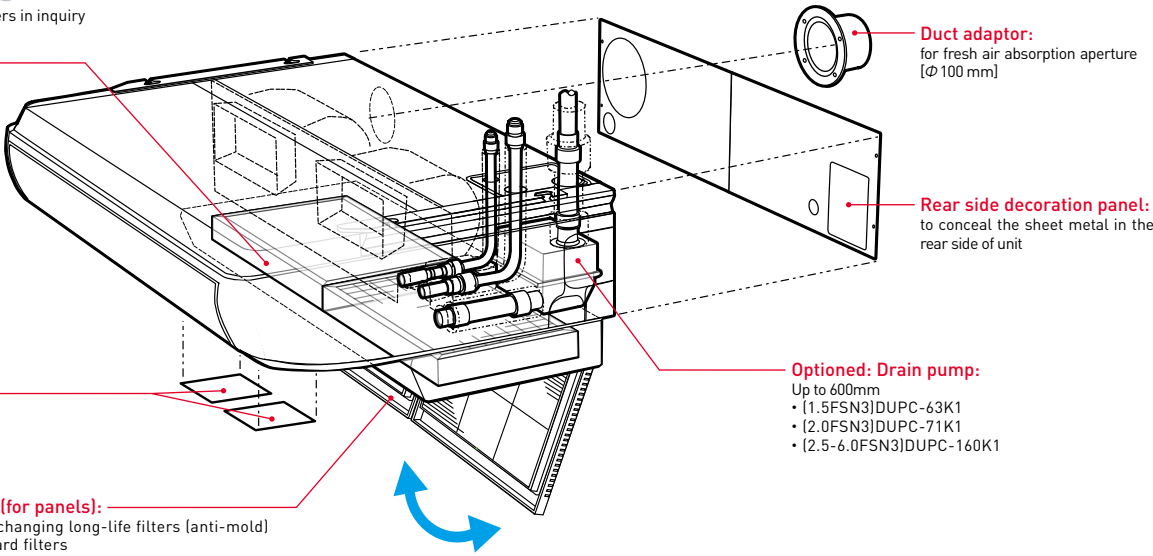
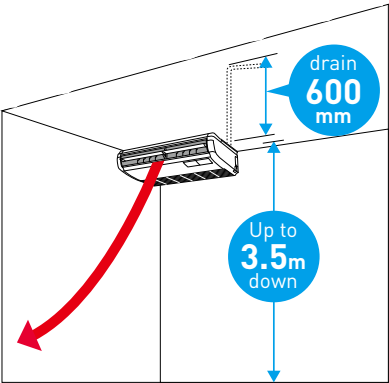
- Filters (for panels):**
- For exchanging long-life filters (anti-mold)
 - Oil guard filters

Design Flexibility

1) High Ceiling Available

IDU Capacity HP(Class)	1.5-3.0	4.0-6.0
Height (m)	3.5	4.3

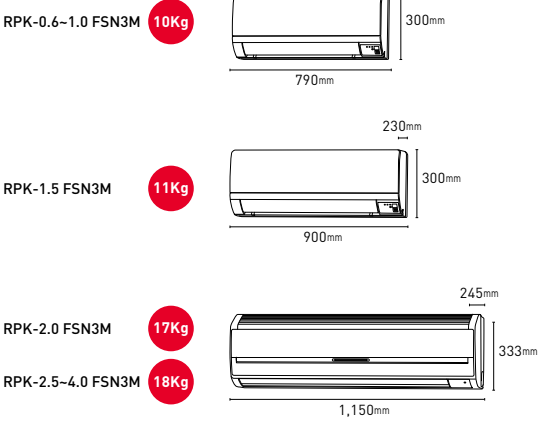
* air flow volume: high



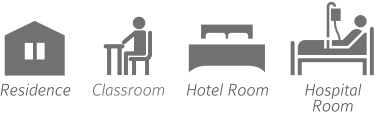
Wall Mounted



Dimensions



Application



Features

- Easy installation
- Simple design matching with any interior
- quiet operation (minimum 29 dB(A))

Indoor Unit Type		Wall mounted type											
		built-in expansion valve								external expansion valve			
Model		RPK-0.6FSN3M	RPK-0.8FSN3M	RPK-1.0FSN3M	RPK-1.5FSN3M	RPK-2.0FSN3M	RPK-2.5FSN3M	RPK-3.0FSN3M	RPK-4.0FSN3M	RPK-0.6FSNH3M	RPK-0.8FSNH3M	RPK-1.0FSNH3M	RPK-1.5FSNH3M
Indoor Unit Power Supply		AC 1Φ, 220-240V/50Hz, 220V/60Hz											
Nominal Cooling Capacity *1)	kW	1.8	2.3	2.9	4.1	5.8	7.3	8.3	11.6	1.8	2.3	2.9	4.1
	kcal/h	1,550	2,000	2,500	3,550	5,000	6,300	7,100	10,000	1,550	2,000	2,500	3,550
	Btu/h	6,100	7,900	9,900	14,100	19,800	25,000	28,200	39,700	6,100	7,900	9,900	14,100
Nominal Cooling Capacity *2)	kW	1.7	2.2	2.8	4.0	5.6	7.1	8.0	11.2	1.7	2.2	2.8	4.0
	kcal/h	1,450	1,900	2,400	3,400	4,800	6,100	6,900	9,600	1,450	1,900	2,400	3,400
	Btu/h	5,800	7,500	9,600	13,600	19,100	24,200	27,300	38,200	5,800	7,500	9,600	13,600
Nominal Heating Capacity	kW	1.9	2.5	3.2	4.8	6.3	8.5	9.0	12.5	1.9	2.5	3.2	4.8
	kcal/h	1,650	2,100	2,800	4,100	5,400	7,300	7,700	10,700	1,650	2,100	2,800	4,100
	Btu/h	6,500	8,500	10,900	16,400	21,500	29,000	30,700	42,600	6,500	8,500	10,900	16,400
Sound Pressure Level (Overall A Scale) (Hi2/Hi/Me/Lo)	dB	35/32/31/29	39/35/32/30	39/35/32/30	46/40/36/33	42/40/38/33	49/43/40/36	49/43/40/36	51/49/46/41	35/32/31/29	39/35/32/30	39/35/32/30	46/40/36/33
Cabinet Color		White											
Outer Dimensions	Height	mm	300	300	300	300	333	333	333	333	300	300	300
	Width	mm	790	790	790	900	1,150	1,150	1,150	1,150	790	790	900
	Depth	mm	230	230	230	230	245	245	245	245	230	230	230
Net Weight	kg	10	10	10	11	17	18	18	18	10	10	10	11
Refrigerant		R410A											
Air Flow Rate (Hi/Me/Lo)	m³/min. [cfm]	8/7.5/7/6 [282/265/ 247/212]	10/8/7/6.5 [353/283/ 247/230]	10/8/7/6.5 [353/282/ 247/230]	14/11/9/7.5 [494/388/ 318/265]	15/14/13/10 [530/494/ 459/353]	19/17/14/12 [671/600/ 494/424]	19/17/14/12 [671/600/ 494/424]	22/19/17/15 [777/671/ 600/530]	8/7.5/7/6 [282/265/ 247/212]	10/8/7/6.5 [353/283/ 247/230]	10/8/7/6.5 [353/282/ 247/230]	14/11/9/7.5 [494/388/ 318/265]
Motor Output	W	40											
Connections		Flare-Nut Connection (with Flare Nuts)											
Refrigerant Piping	Liquid Line	mm[in.]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 9.52[3/8]	Φ 9.52[3/8]	Φ 9.52[3/8]	Φ 6.35[1/4]	Φ 6.35[1/4]	Φ 6.35[1/4]
	Gas Line	mm[in.]	Φ 12.7[1/2]	Φ 12.7[1/2]	Φ 12.7[1/2]	Φ 12.7[1/2]	Φ 15.88[5/8]	Φ 15.88[5/8]	Φ 15.88[5/8]	Φ 15.88[5/8]	Φ 12.7[1/2]	Φ 12.7[1/2]	Φ 12.7[1/2]
	Condensate Drain		VP16										
ApproximatePacking Measurement	m³	0.09	0.09	0.09	0.11	0.14	0.14	0.14	0.14	0.09	0.09	0.09	0.11
Standard Accessories		Wall Mounting Bracket											

NOTES:

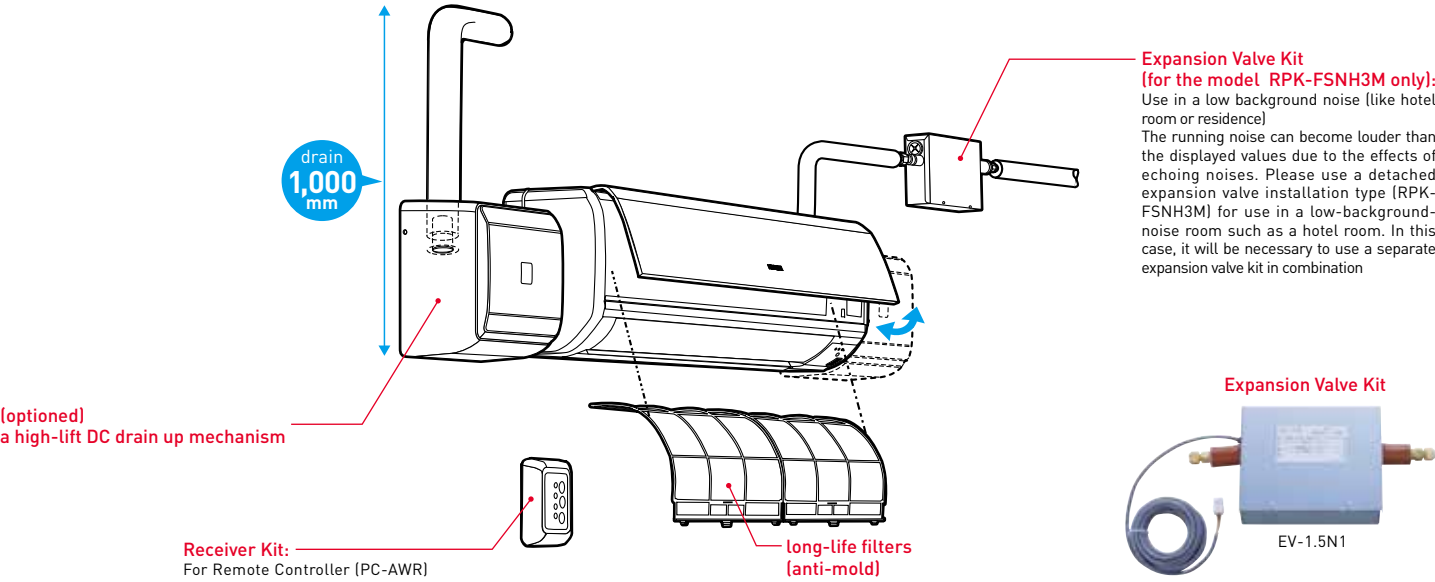
1.The cooling and heating capacities above show the maximum capacities when the outdoor and indoor temperature are under the following conditions.
Cooling Operation Conditions
Indoor Air Inlet Temperature: 27°C DB (80°F DB)
19.0°C WB (66.2°F WB)
Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions
Indoor Air Inlet Temperature: 20°C DB (68°F DB)
7°C DB (45°F DB)
Outdoor Air Inlet Temperature: 6°C WB (43°F WB)
Piping Length:7.5 Meters
Piping Lift:0 Meter

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

OPTIONAL PARTS

Please consult your distributors or dealers in inquiry



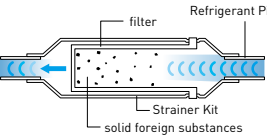
STRAINER KIT

Model	IDU to be installed		
MSF-NP63A1	RPK	0.6~2.0	FSN3M
MSF-NP112A1	RPK	2.5~4.0	FSN3M
MSF-NP36AH1	RPK	0.6~1.5	FSNH3M

What it is?

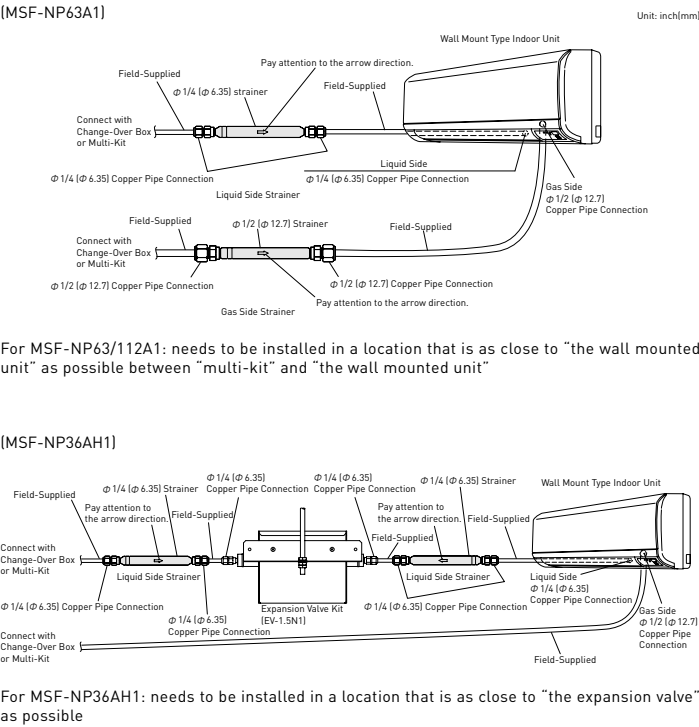
For the running of the cooling functions in VRF, the electric expansion valves of an indoor unit that is not in operation are fully closed. But if solid foreign substances enter the refrigerant piping at the time of installation, those solid foreign substances sometimes become stuck between the valve parts of the electric expansion valves, which prevents the valves from being completely closed (slightly opening); as a result, a small amount of refrigerant gas runs through the heat exchanger of an indoor unit that is not in operation and cools the heat exchanger. In addition, for a wall-mounted indoor unit, there were occasional cases in which the cooling of the fan beneath a heat exchanger caused dew condensation, and the condensed dew exploded from an aperture when the unit was put into operation. The unit therefore ensures that the solid foreign substances are caught without fail just before the electric expansion valves of a wall-mounted indoor unit, even if such solid foreign substances should have entered the Refrigerant pipes.

How it works?



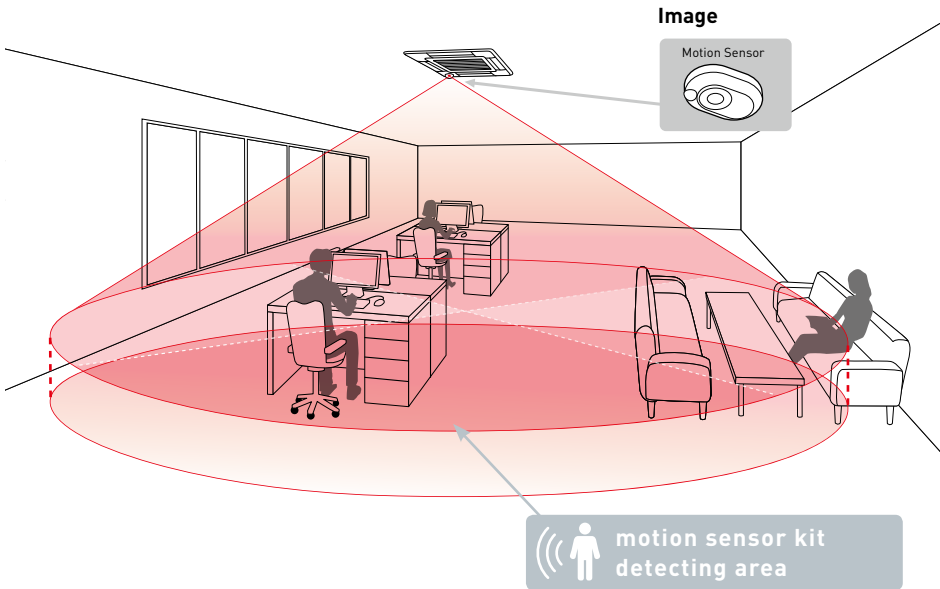
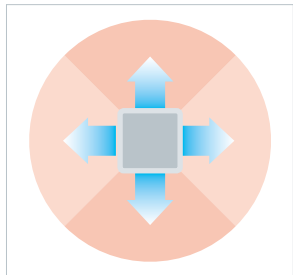
A strainer kit catches **foreign substances** such as tiny particles of steel and copper powder that have entered the **refrigerant piping**.

Where to install?

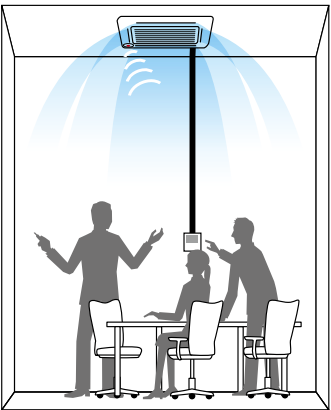


Introduction of Motion Sensor Kit

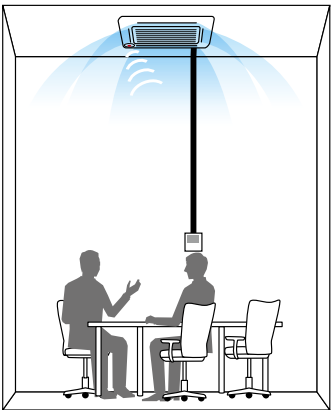
Senses the amount of human activity,
undertakes automatic saving and
achieves intelligent energy saving



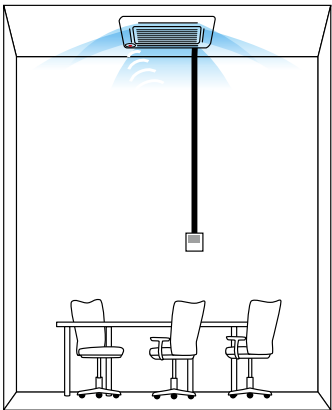
Perceives the amount of human activity and undertakes
automatic saving



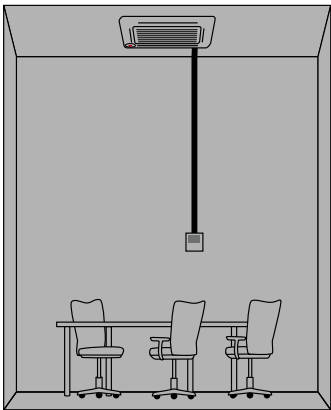
Standard operation for a room
with a lot of human movement.



Moderate operation for a room
with little human movement.



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



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

Model Name

P-AP160NAE		4-way cassette
SOR-NEC		4-way cassette compact
SOR-NED		2-way cassette
SOR-NES		1-way cassette

Motion Sensor Kit		Indoor Unit	
SOR-NEZ		Ducted High ESP	
SOR-NEZ		Ducted Medium ESP	
SOR-NEP		Ceiling Suspended	

Ventilation

LINE UP OVERVIEW

Air flow rate		(m³/h)	0.0	1,000.0	2,000.0	3,000.0	4,000.0	5,000.0	6,000.0	7,000.0	8,000.0	Features
		(cfm)	0.0	1680.0	3360.0	5040.0	6720.0	8400.0	10080.0	11760.0	13440.0	
		(l/s)	0.0	3600.0	7200.0	10800.0	14400.0	18000.0	21600.0	25200.0	28800.0	
Total Heat Exchanger	AC 1Φ 220-240V/50Hz											• Ventilation • Heat transfer to incoming fresh-air from outgoing stale-air
	AC 1Φ 220V/50Hz											
Fresh Air Unit	AC 1Φ 220V/50Hz											• Ventilation • Conditioning the incoming fresh-air with Refrigerant heat exchanger inside.
	AC 3Φ 380V/50Hz											

1 cfm = 0.028 m³/min
1 l/s = 0.06 m³/min



TOTAL HEAT EXCHANGER

Unit Type		Total Heat Exchanger							
Model		KPI-2521	KPI-5021	KPI-8021	KPI-10021 *1)	KPI-2521	KPI-5021	KPI-8021	KPI-10021 *1)
Unit Power Supply		AC 1Φ , 220-240V/50Hz				AC 1Φ , 220/60Hz			
Air Flow Rate(Hi/Me/Lo)	m³/h	250/250/165	500/500/350	800/800/670	1,000/1,000/870	250/250/150	500/500/300	800/800/660	1,000/1,000/720
External Pressure(Hi/Me/Lo)	Pa	65/40/20	150/60/30	140/100/70	160/100/80	100/50/20	200/60/20	230/120/80	200/110/60
Temp. Exchange Efficiency(Hi/Me/Lo)	%	78/78/83	77/77/82	78/78/80.5	79/79/81	78/78/84	77/77/83.5	78/78/81	79/79/83
Enthalpy Exchange Efficiency	For Heating (Hi/Me/Lo)	%	69/69/74	67/67/73	71/71/73	70/70/73	69/69/75	67/67/75	71/71/73.5
	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	62.5/62.5/70	61.5/61.5/70	64.5/64.5/68.5
Sound Pressure Level (Over A Scale)	at 1.5m from the unit (under) (Hi/Me/Lo) *2), *4)	dB	26.5-27.5/25-26/21-22	32.5-33.5/30-31/23.5-24.5	33.5-34.5/32-33/30-31	36-37/34-35/31.5-32.5	28.5/25.5/21	32.5/28.5/23	35/31/29
	at Air Outlet (Hi/Me/Lo) *3), *4)	dB	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	35.5/32.5/26	40.5/36.5/29	46/42/39
Outer Dimensions	Height	mm(in.)	275(10-13/16)	317(12-1/2)	398(15-11/16)	398(15-11/16)	275(10-13/16)	317(12-1/2)	398(15-11/16)
	Width	mm(in.)	735(28-15/16)	1,016(40)	1,004(39-1/2)	1,231(48-7/16)	735(28-15/16)	1,016(40)	1,004(39-1/2)
	Depth	mm(in.)	780(30-11/16)	888(34-15/16)	1,164(45-13/16)	1,164(45-13/16)	780(30-11/16)	888(34-15/16)	1,164(45-13/16)
Net Weight	kg(lbs.)	21(46)	33(73)	61(134)	72(159)	21(46)	33(73)	61(134)	72(159)
Connection Duct Diameter	mm	Φ 150	Φ 200	Φ 250	Φ 250	Φ 150	Φ 200	Φ 250	Φ 250

NOTES:

*1):KPI-10021 has different units according to the applied power supply, 220-240V/50Hz and 220V/60Hz.

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

1.5 meters 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 meters 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).

FRESH AIR UNIT



Indoor Unit Type		All Fresh Air		
Model		RPI-5.0KFNQ	RPI-8.0KFNQ	RPI-10.0KFNQ
Fresh Air Processing Unit Power		AC 1Φ, 220V~50Hz		
Matched Outdoor Unit Type		SET-FREE Energy-saving Pioneer Series		
Cooling Capacity	kW	14	22.4	26
Cooling Input Power	kW	0.3	0.48	0.5
Cooling Rated Electric Current	A	1.4	2.2	2.3
Heating Capacity	kW	13.7	21.9	24.5
Heating Input Power	kW	0.3	0.48	0.5
Heating Rated Electric Current	A	1.4	2.2	2.3
External Dimension	High	mm	370	486
	Width	mm	1,320	1,270
	Thickness	mm	800	1,039
Noise Level	dB(A)	42	44	45
Net Weight	kg	60	110	110
Refrigerant		R410A		
Fresh Air Processing Unit Fan Speed	m³/h	1,080	1,680	2,100
External Static Pressure	Pa	200	220	220
Drain Pipe Dimension		VP25		
Refrigerant Liquid Pipe Dimension	mm	Φ 9.53	Φ 9.53	Φ 9.53
Refrigerant Gas Pipe Dimension	mm	Φ 15.88	Φ 19.05	Φ 22.2
Inlet Fresh Air Temperature Range		Cooling: 20°C~43°C, Heating: -5°C~15°C		

- Instructions:
- Cooling capacity and heating capacity test in the following conditions:
Cooling conditions: 33°CDB, 28°CWB, pipeline length 7.5m, pipe height difference 0.0m
Heating conditions: 0°CDB, -2.9°CWB, pipeline length 7.5m, pipe height difference 0.0m [heating is the data without defrosting]
 - Noise test conditions are as follows:
At a distance of 1.5m 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.
 - An air filter with dust removal efficiency of 50% or more needs to be installed at the air inlet.
 - 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 generating dew.
 - Air processor can only be used for processing fresh air, indoor air conditioning load processing need to use other air conditioners.
 - Fresh air processing unit should be connected with SET-FREE 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 140: 21.0kW; Type 224 : 33.3kW; Type 280: 42.0kW;
 - When SET-FREE outdoor unit is only connected with fresh air processing unit, the configuration rate is 100%.
 - When outdoor temperature is below 20°C in cooling operation, the system will be automatically converted to ventilation operation. When outdoor temperature is higher than 15°C in heating operation, it will be automatically converted to ventilation operation. When lower than -5°C, the fresh air processing unit will stop running.

Indoor Unit Type			All Fresh Air						
Model			RPI-12.0KFNQ	RPI-16.0KFNQL	RPI-16.0KFNQH	RPI-20.0KFNQL	RPI-20.0KFNQH	RPI-20.0KFNQLF	RPI-20.0KFNQHF
Fresh Air Processing Unit Power			AC 3Φ, 380V~50Hz						
Matched Outdoor Unit Type			RAS-12.0FSN1Q	RAS-16.0FSN1Q	RAS-16.0FSN1Q	RAS-20.0FSN1Q	RAS-20.0FSN1Q	RAS-20.0FSN1Q	RAS-20.0FSN1Q
Cooling Capacity	kW	33.5	45.0	45.0	56.0	56.0	56.0	56.0	
Cooling Input Power	kW	0.68	0.72	1.06	1.06	1.39	1.39	1.72	
Cooling Rated Electric Current	A	1.43	1.8	2.2	2.22	3.14	3	3.9	
Heating Capacity	kW	26.8	36.0	36.0	44.8	44.8	44.8	44.8	
Heating Input Power	kW	0.68	0.72	1.06	1.06	1.39	1.39	1.72	
Heating Rated Electric Current	A	1.43	1.8	2.2	2.22	3.14	3.0	3.9	
External Dimension	High	mm	486	635	635	735	735	735	
	Width	mm	1,270	1,950	1,950	1,950	1,950	1,950	
	Thickness	mm	1,069	805	805	805	805	805	
Noise Level	dB(A)	55	57	60	59	63	61	65	
Net Weight	kg	95	196	196	222	222	222	222	
Refrigerant			R410A						
Fresh Air Processing Unit Fan Speed	m³/h	3,000	4,000	4,000	5,000	5,000	6,000	6,000	
External Static Pressure	Pa	220	200	200	200	300	200	300	
Drain Pipe Dimension		VP25	Rc1(Internal Thread)						
Refrigerant Liquid Pipe Dimension	mm	Φ 12.7	Φ 12.7	Φ 12.7	Φ 15.88	Φ 15.88	Φ 15.88	Φ 15.88	
Refrigerant Gas Pipe Dimension	mm	Φ 25.4	Φ 25.4	Φ 25.4	Φ 28.6	Φ 28.6	Φ 28.6	Φ 28.6	
Inlet Fresh Air Temperature Range			Cooling: 20°C~43°C, Heating: -5°C~15°C						

- Instructions:
- Cooling capacity and heating capacity test in the following conditions:
Cooling conditions: 33°CDB, 28°CWB, pipeline length 7.5m, pipe height difference 0.0m
Heating conditions: 0°CDB, -2.9°CWB, pipeline length 7.5m, pipe height difference 0.0m [heating is the data without defrosting]
 - Noise test conditions are as follows:
At a distance of 1.5m 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.
 - An air filter with dust removal efficiency of 50% or more needs to be installed at the air inlet.
 - 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 generating dew.
 - Air processor can only be used for processing fresh air, indoor air conditioning load processing need to use other air conditioners.
 - When outdoor temperature is below 20°C in cooling operation, the system will be automatically converted to ventilation operation. When outdoor temperature is higher than 15°C in heating operation, it will be automatically converted to ventilation operation. When lower than -5 °C, the fresh air processing unit will stop running.



Outdoor Units

Dimensions Index

Ceiling Cassette	
103	4-way cassette RCI- FSN3
104	4-way cassette compact RCIM-FSN4
105	2-way cassette RCD-FSN3
106	1-way cassette RCS-FSN
107	1-way cassette(Clipped Ceiling Type) RCS-FSN

Ducted	
108	High ESP RPI-2.0~3.0FSN3
109	RPI-4.0~6.0FSN3 RPI-8.0/10.0FSN1
110	Medium ESP RPIM-0.8~3.0FSN3
111	RPIM-4.0~6.0FSN3
112	Slim RPIZ-FSNQS/P
113	Compact RPIZ-FSN1Q/P
114	Larger Air Volume RPI-FSN2SQ

Exposed and Concealed	
115	Floor Exposed RPF-FSN2E
116	Floor Concealed RPFI-FSN2E
117	Floor / Ceiling convertible RPFC-FSNQ
118	Ceiling suspended RPC-1.5~3.0FSN
119	RPC-4.0~6.0FSN3
120	Wall Mounted RPK-0.6~1.5FSN3M
121	RPK-2.0~4.0FSN3M
122	RPK-FSNH3M

Ventilation	
123	Total Heat Exchanger KPI-2521/5021
124	KPI-8021/10021
125	Fresh Air Unit RPI-5.0~12.0KFNQ
126	RPI-16.0~20.0KFNQL/H RPI-KFNQLF RPI-KFNQHF

Fan Performance Sheet

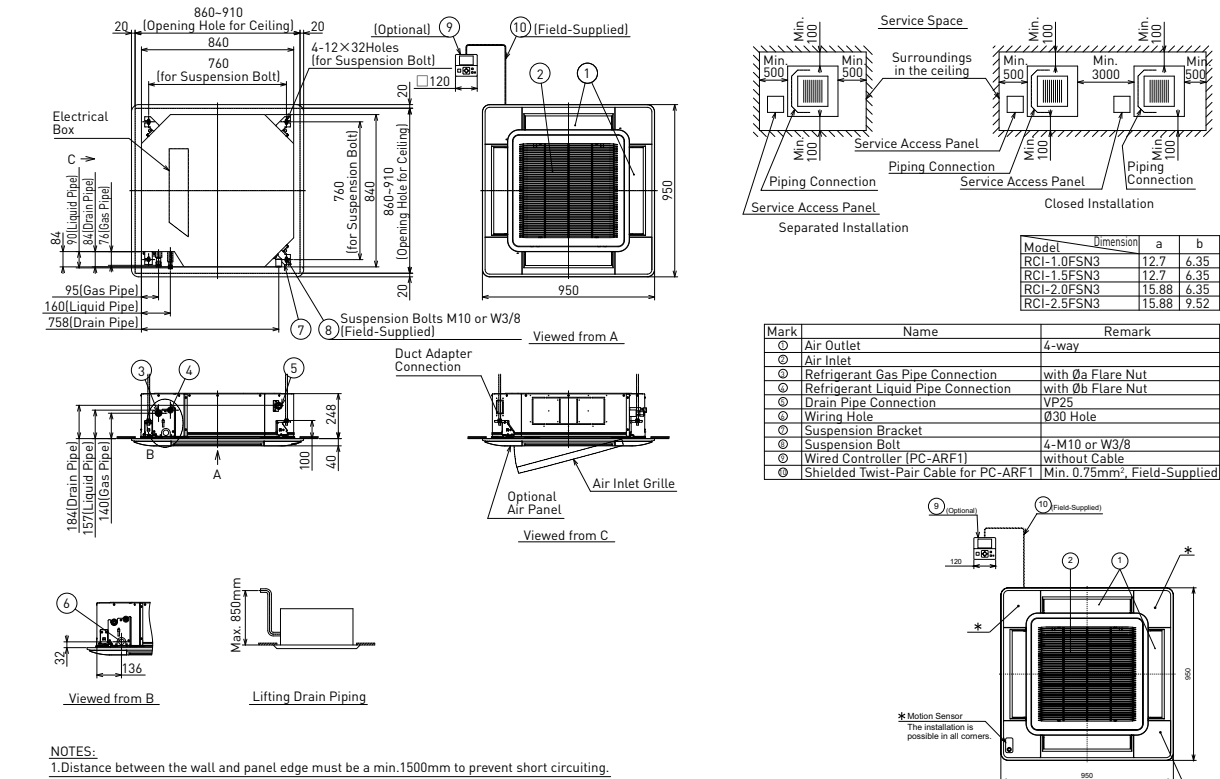
Ducted	
127	High ESP RPI-2.0~4.0FSN3
128	RPI-5.0~6.0FSN3 RPI-8.0/10.0FSN1
129	Medium ESP RPIM-0.8~2.0FSN3
130	RPIM-2.5~5.0FSN3
131	RPIM-6.0FSN3
132	Slim RPIZ-FSN1Q/P RPIZ-FSNQS/P
133	Compact RPIZ-FSN1Q/QS
134	Larger Air Volume RPI-FSN2SQ

Ventilation	
135	Total Heat Exchanger KPI-2521/5021
136	KPI-8021/10021
137	Fresh Air Unit RPI-5.0~16.0KFNQ
138	RPI-16.0~20.0KFNQ

4-way cassette

Models: RCI-1.0FSN3, RCI-1.5FSN3, RCI-2.0FSN3 AND RCI-2.5FSN3 WITH AIR PANEL P-AP160NA1

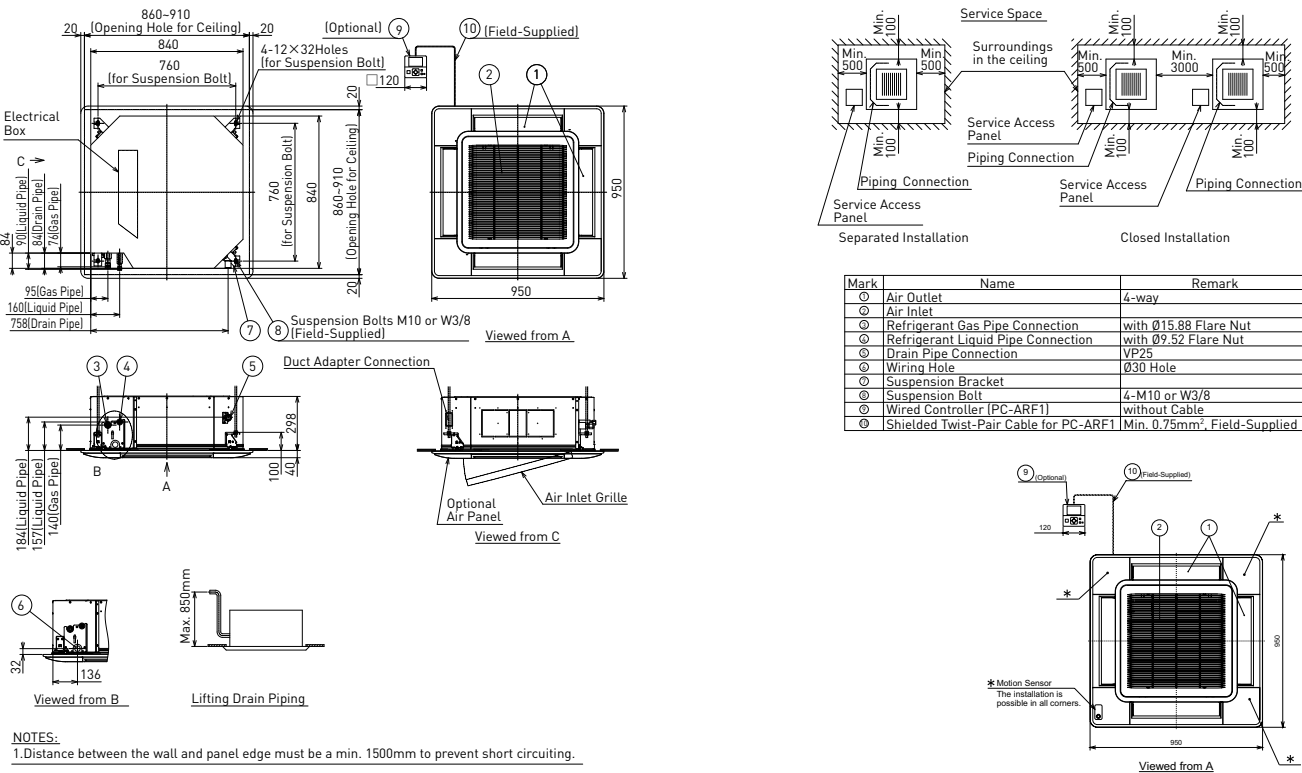
Unit: mm



4-way cassette

Models: RCI-3.0FSN3, RCI-4.0FSN3, RCI-5.0FSN3 AND RCI-6.0FSN3 WITH AIR PANEL P-AP160NA1

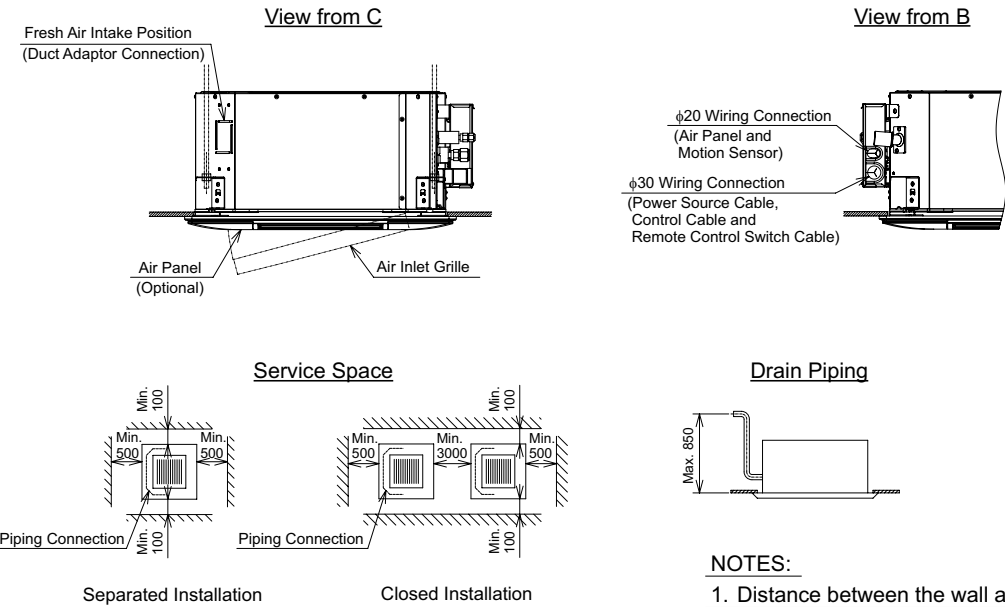
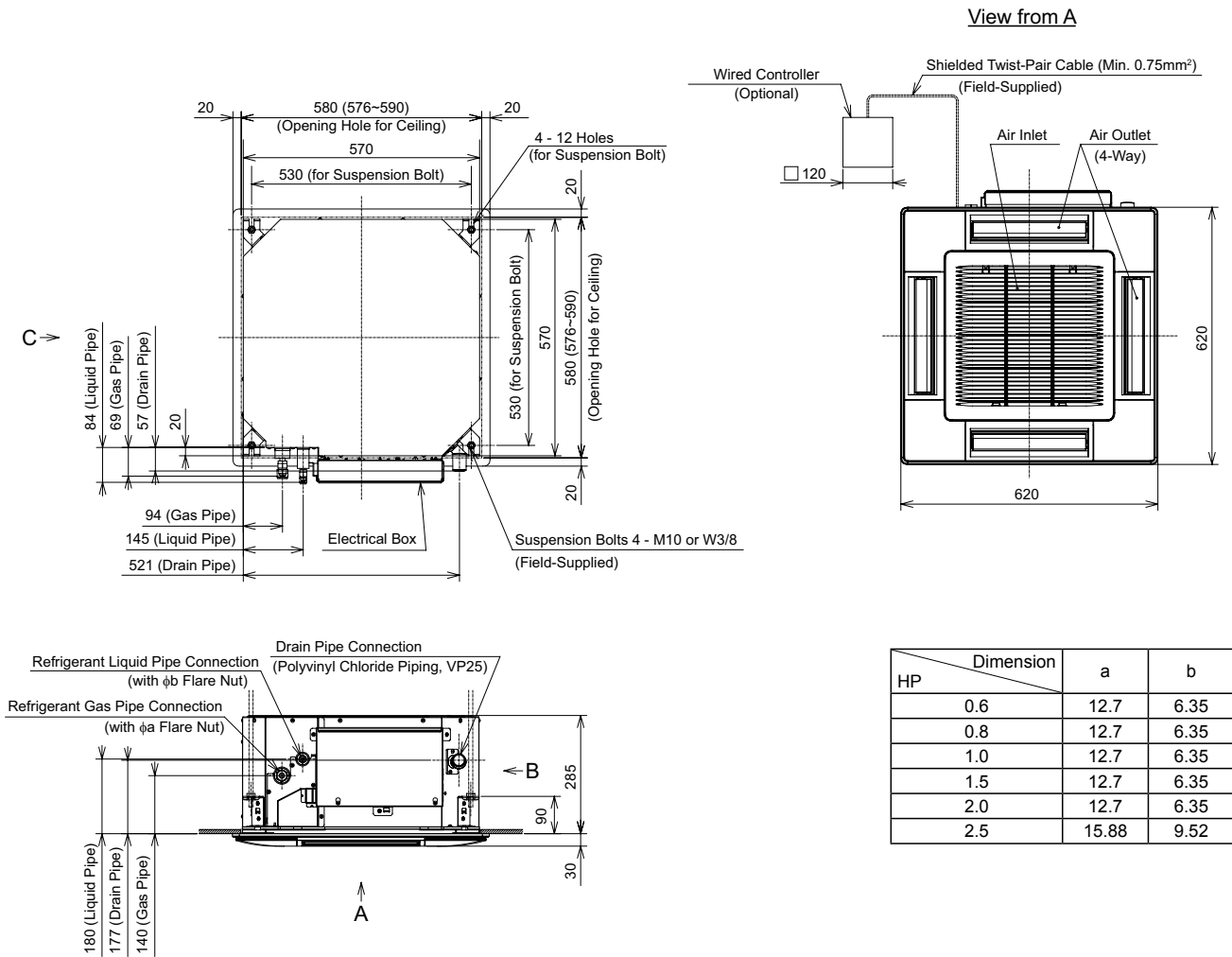
Unit: mm



4-way cassette compact

Models: RCIM-0.6FSN4, RCIM-0.8FSN4, RCIM-1.0FSN4, RCIM-1.5FSN4, RCIM-2.0FSN4 and RCIM-2.5FSN4 with Air Panel P-AP56NAM

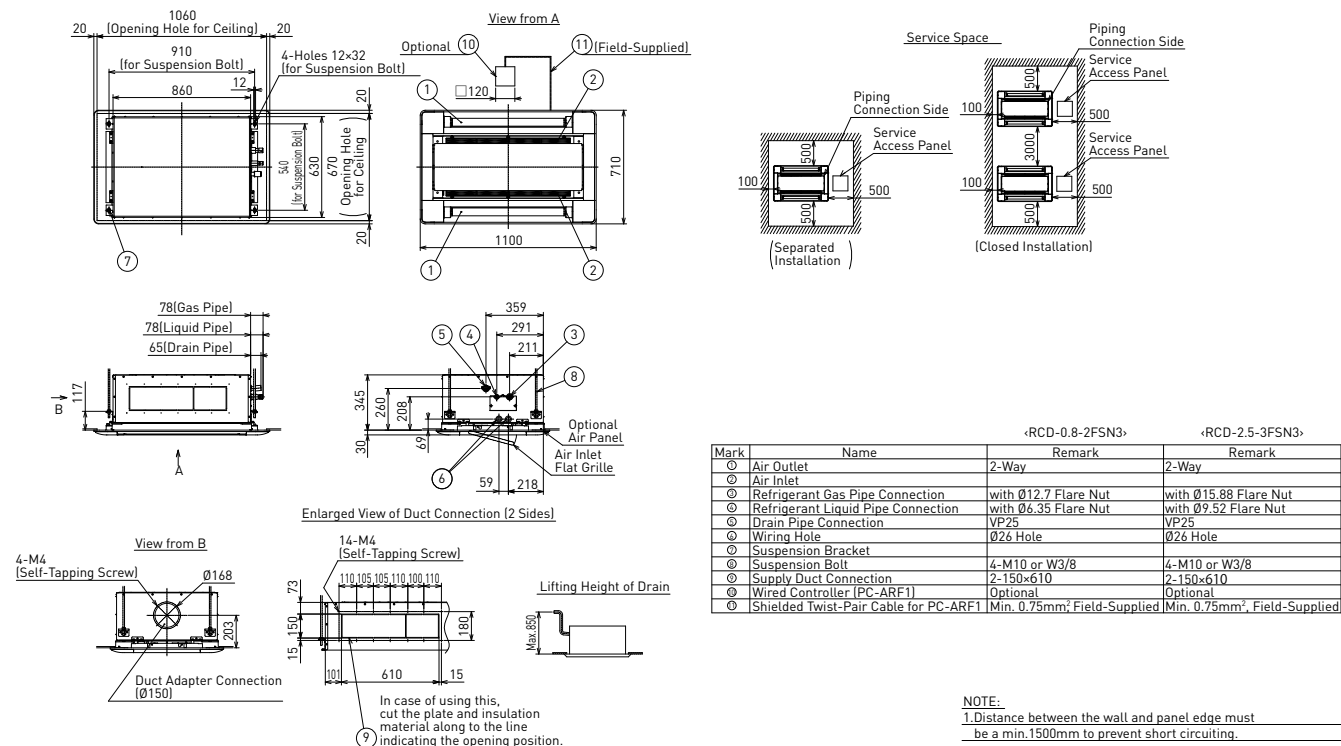
Unit: mm



NOTES:
1. Distance between the wall and panel edge must be a min. 1500mm to prevent short circuiting.
2. This dimensional data shows the indoor unit with the air panel.

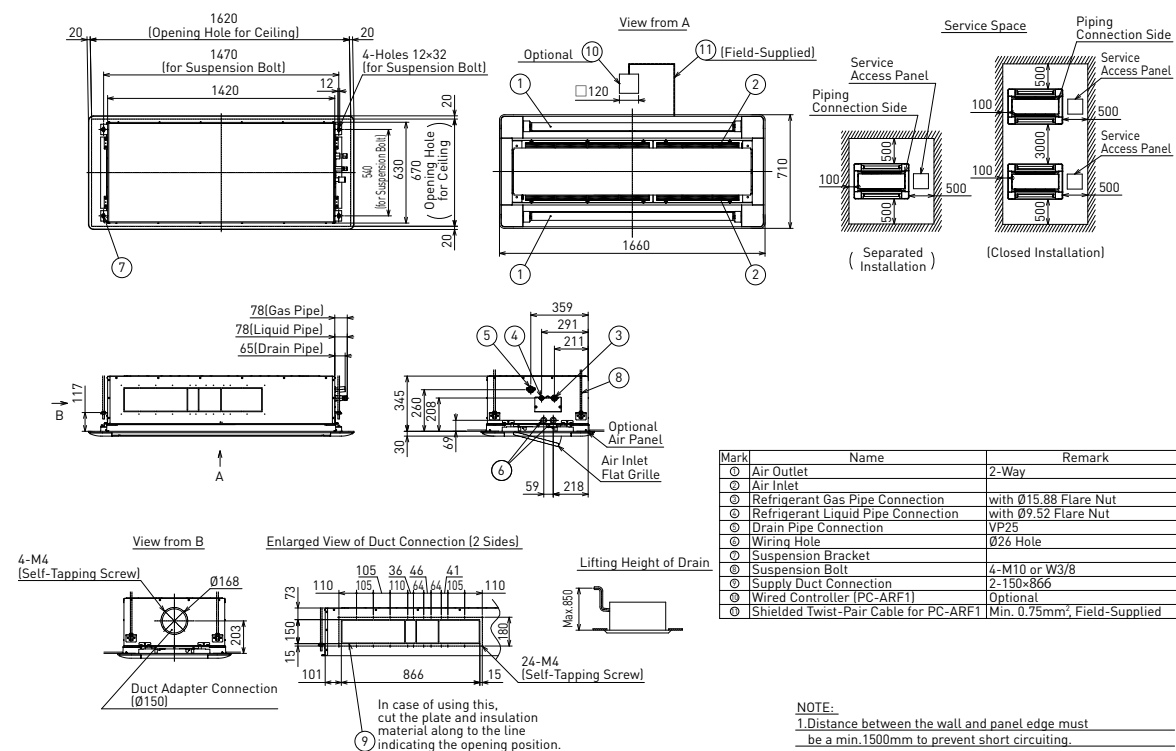
Models: RCD-2.5FSN3 AND RCD-3.0FSN3 WITH AIR PANEL P-AP90DNA

Unit: mm



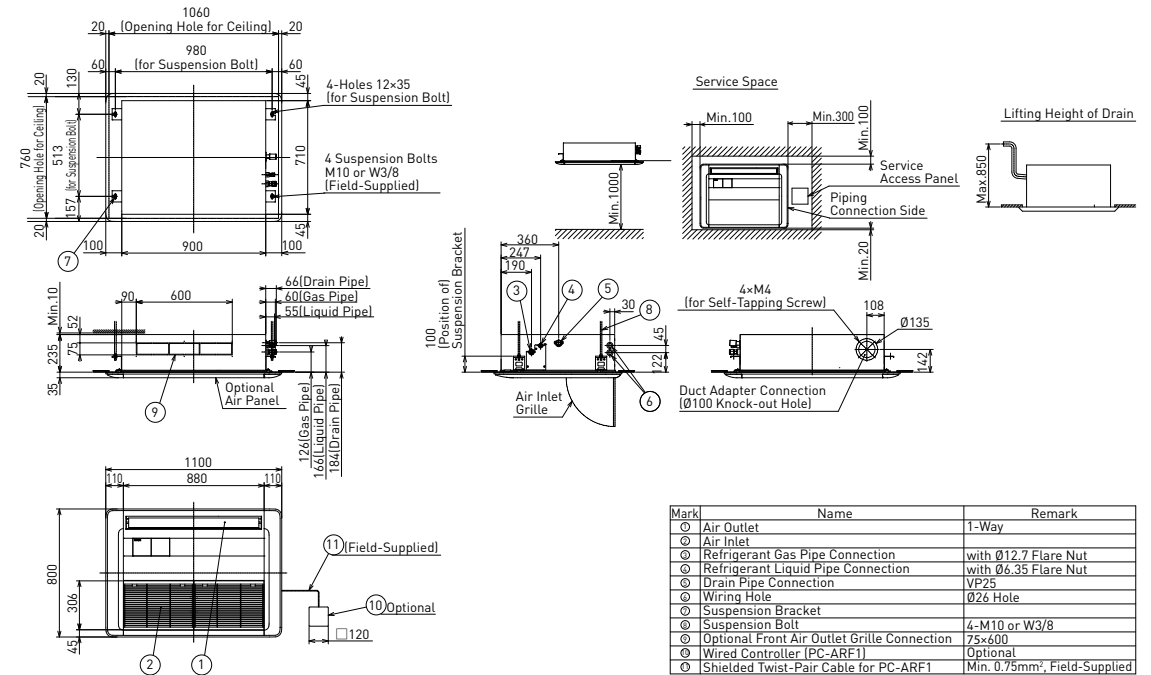
Models: RCD-4.0FSN3, RCD-5.0FSN3 AND RCD-6.0FSN3 WITH AIR PANEL P-AP160DNA

Unit: mm



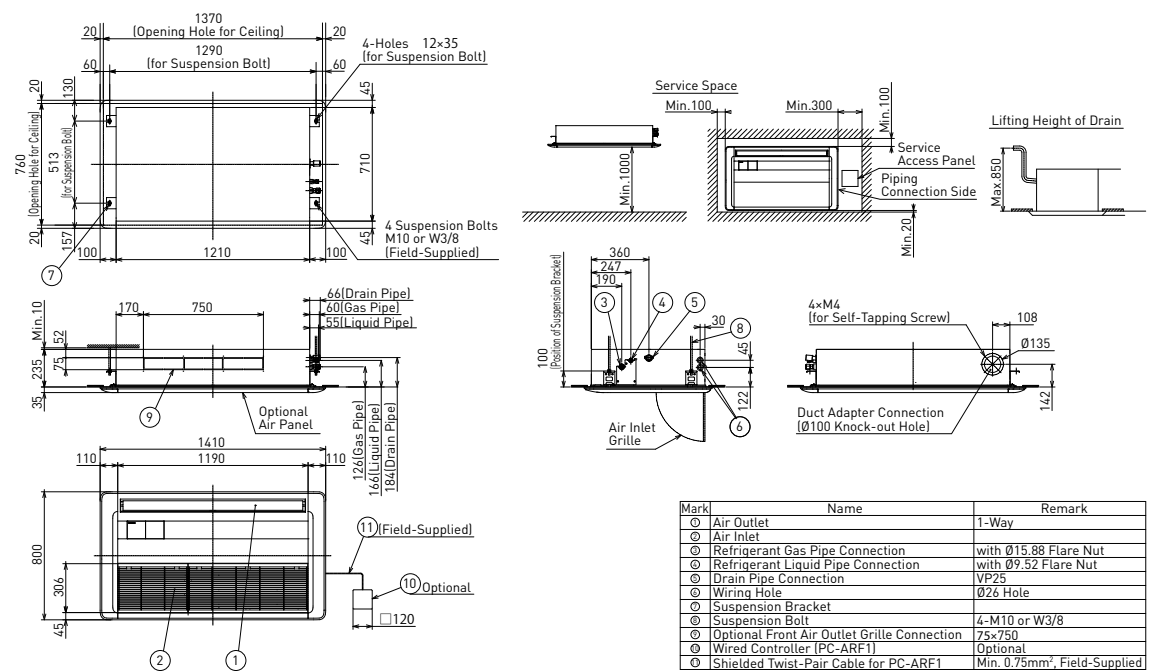
Models: RCS-0.8FSN, RCS-1.0FSN, RCS-1.5FSN AND RCS-2.0FSN WITH AIR PANEL P-AP36CNA AND P-AP56CNA

Unit: mm



Models: RCS-2.5FSN AND RCS-3.0FSN WITH AIR PANEL P-AP80CNA

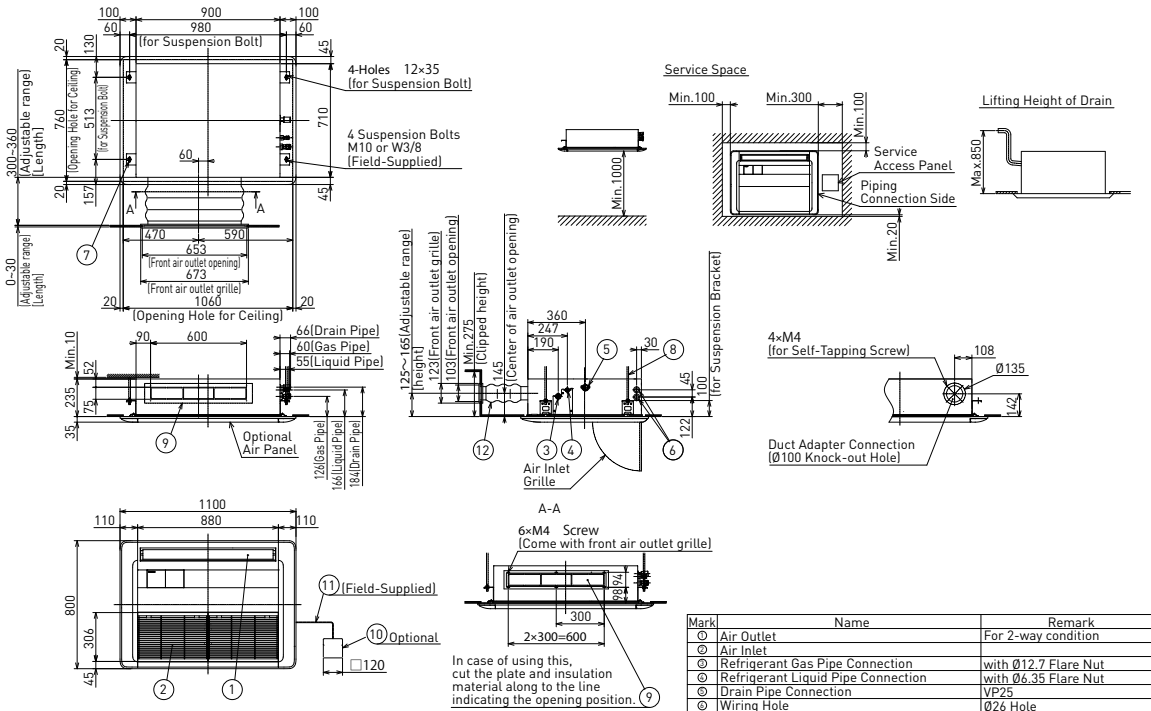
Unit: mm



1-way cassette (Clipped Ceiling Type)

Models: RCS-0.8FSN, RCS-1.0FSN, RCS-1.5FSN AND RCS-2.0FSN WITH AIR PANEL P-AP36CNA AND P-AP56CNA

Unit: mm

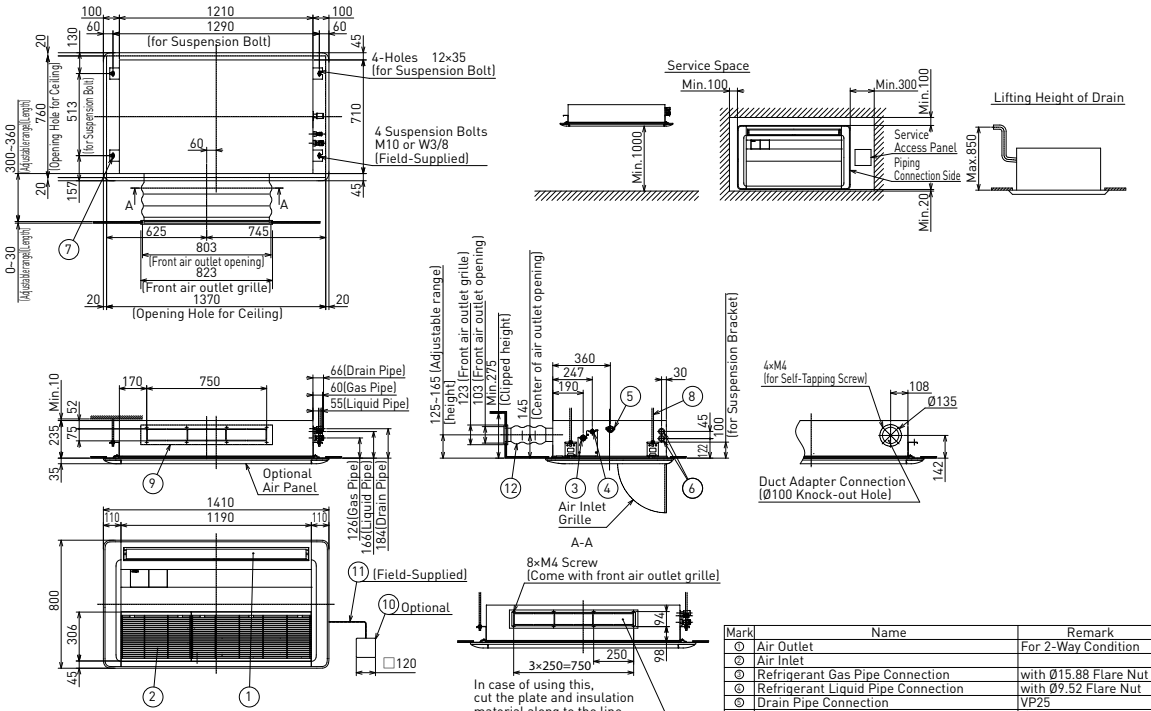


NOTE
1. Drawing describes combination of optional panel and optional front air outlet grille.
2. Sure to use Hitachi-genuine parts, front air outlet grille and air outlet opening cover.
Duct connecting between the unit and front air outlet grille is prohibited.
3. For 2-way condition: Configure "Speed up 1" to keep stable amount of air blow.

1-way cassette (Clipped Ceiling Type)

Models: RCS-2.5FSN AND RCS-3.0FSN WITH AIR PANEL P-AP80CNA

Unit: mm

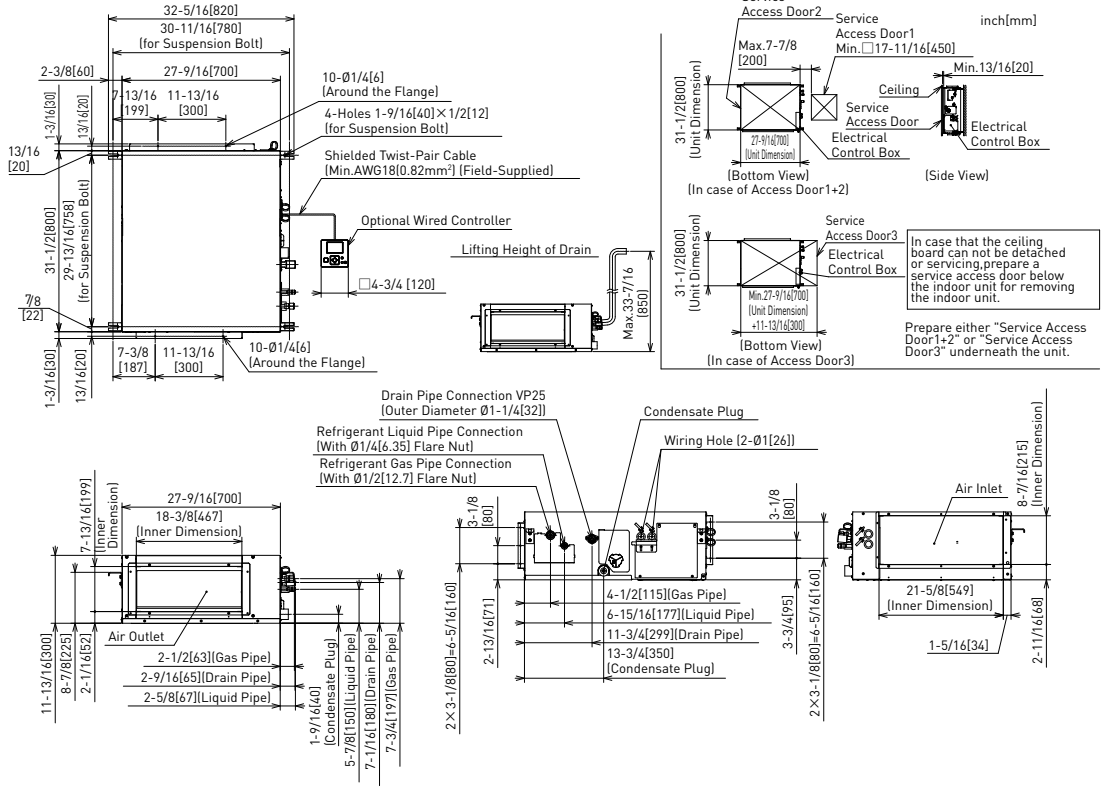


NOTE
1. Drawing describes combination of optional panel and optional front air outlet grille.
2. Sure to use Hitachi-genuine parts, front air outlet grille and air outlet opening cover.
Duct connecting between the unit and front air outlet grille is prohibited.
3. For 2-way Condition: Configure "Speed up 1" to keep stable amount of air blow.

Ducted (High ESP)

Model: RPI-2.0FSN3

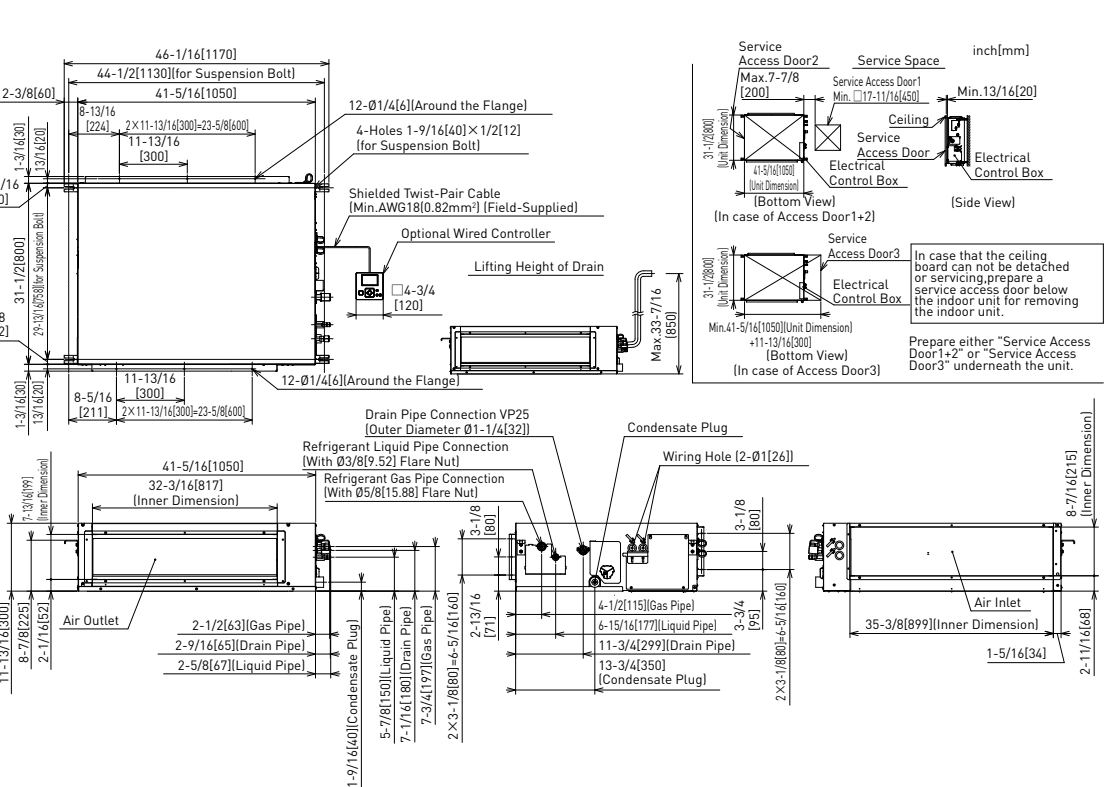
inch: mm



Ducted (High ESP)

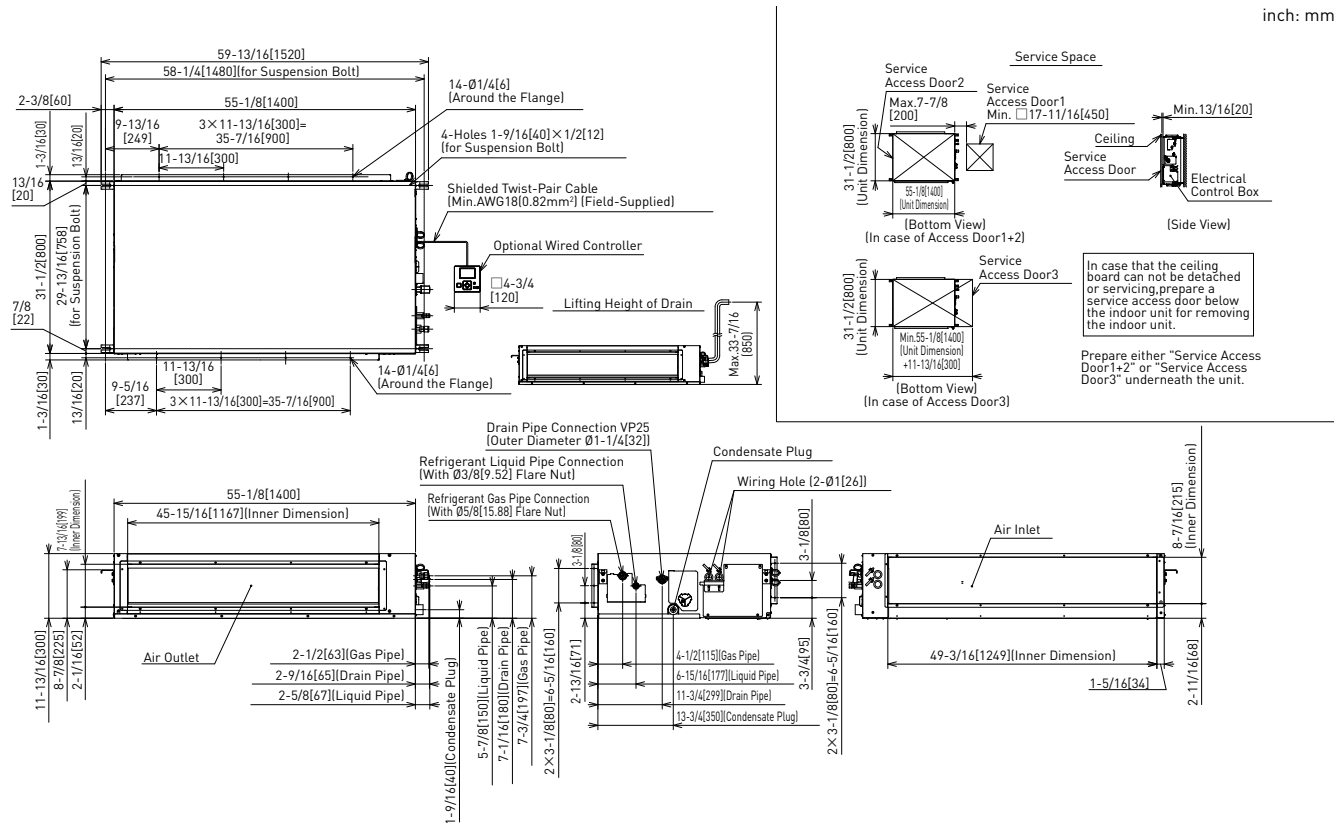
Models: RPI-2.5FSN3 and RPI-3.0FSN3

inch: mm



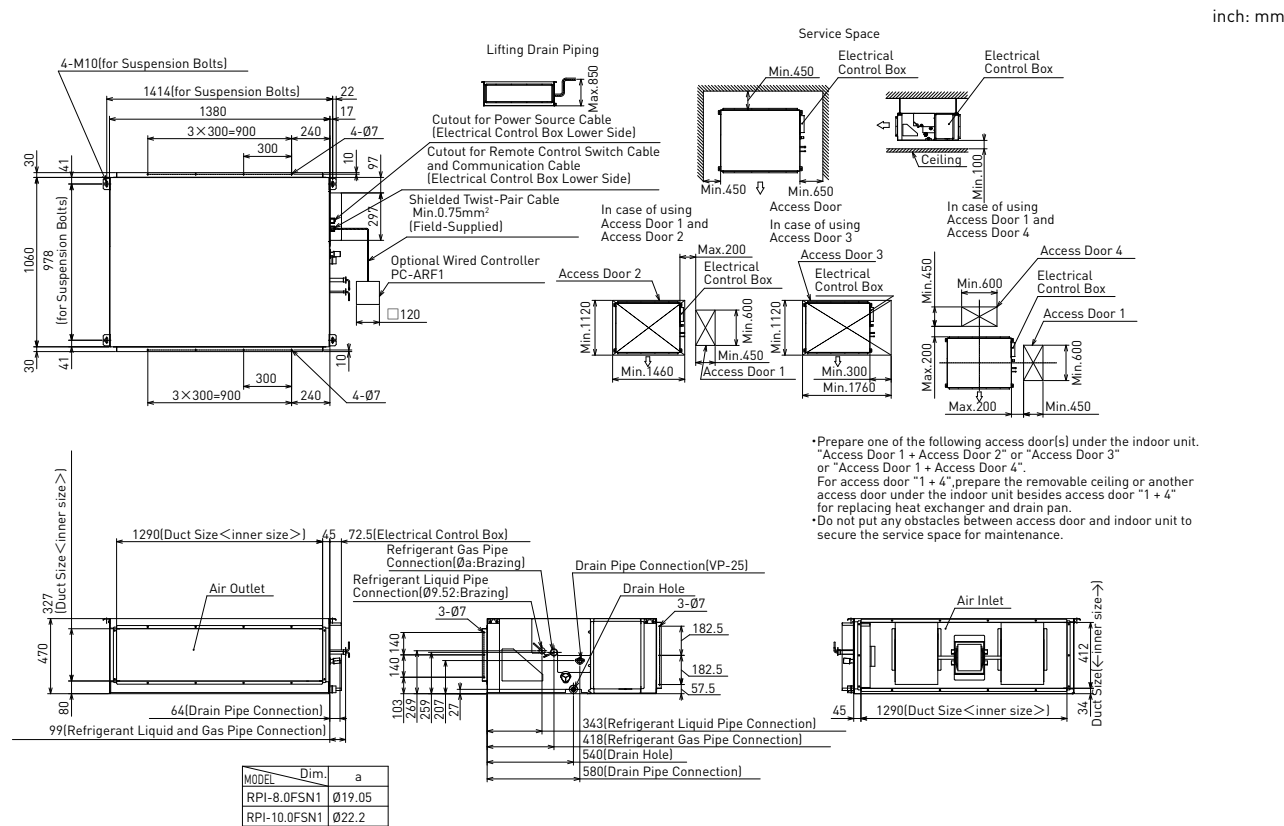
Ducted (High ESP)

Models: RPI-4.0FSN3, RPI-5.0FSN3 and RPI-6.0FSN3



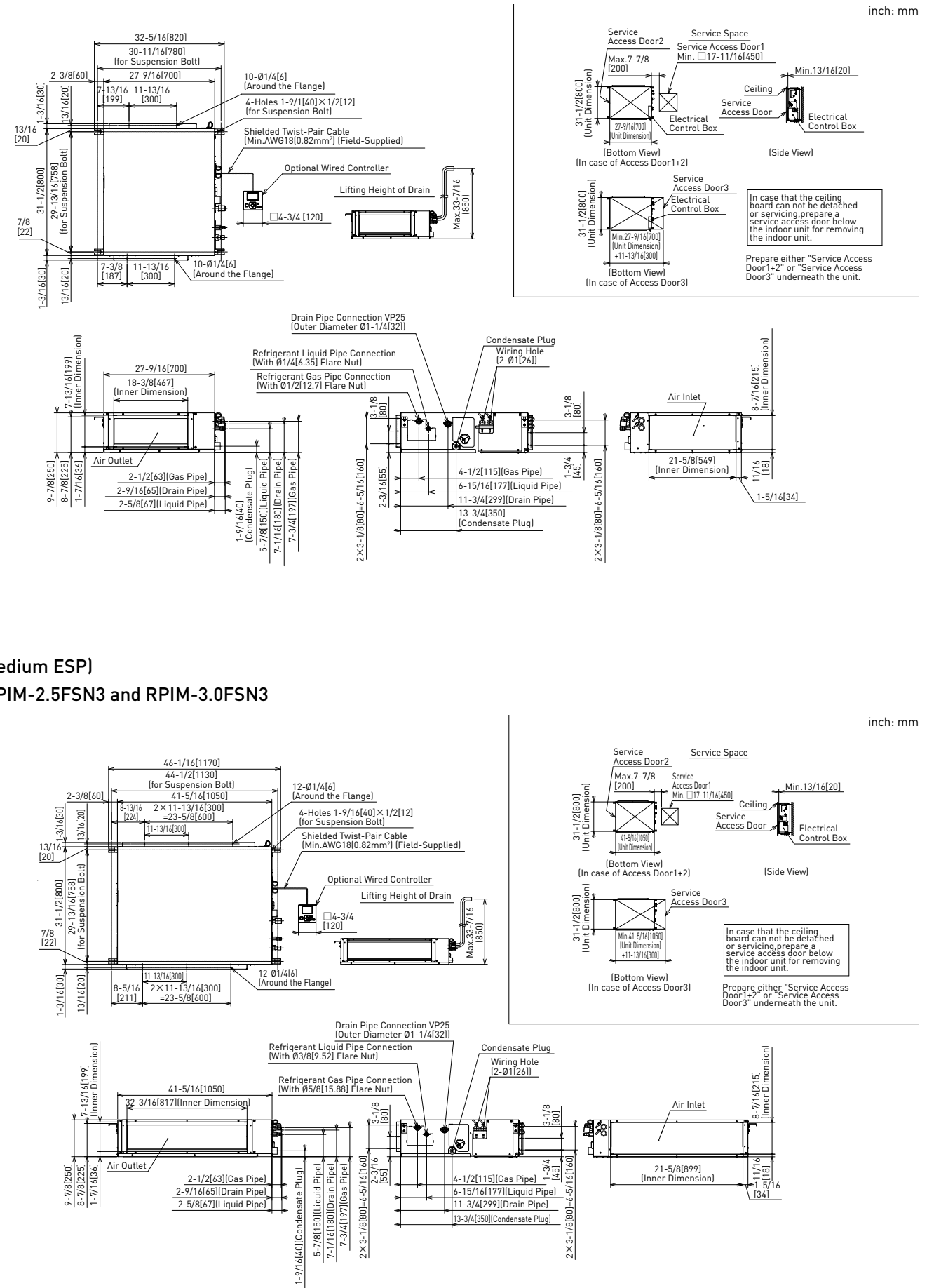
Ducted (High ESP)

Models: RPI-8.0FSN1 AND RPI-10.0FSN1



Ducted (Medium ESP)

Models: RPIM-0.8FSN3, RPIM-1.0FSN3, RPIM-1.5FSN3 and RPIM-2.0FSN3

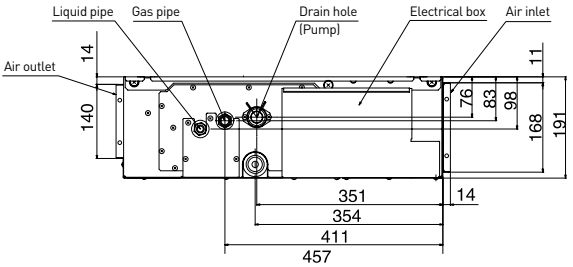
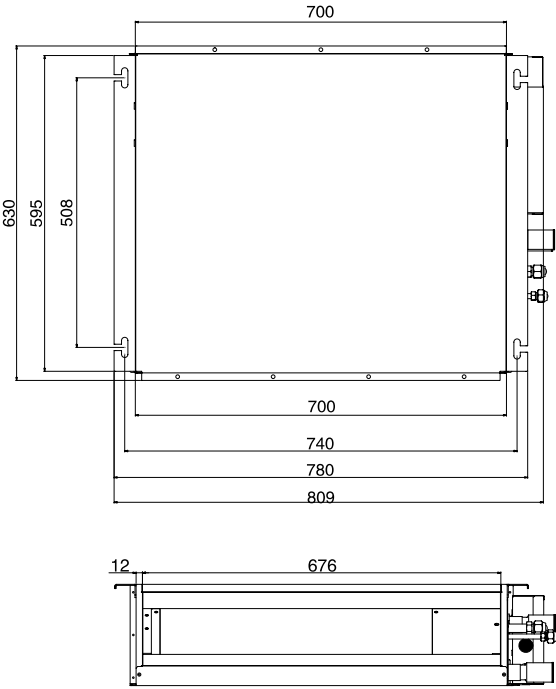
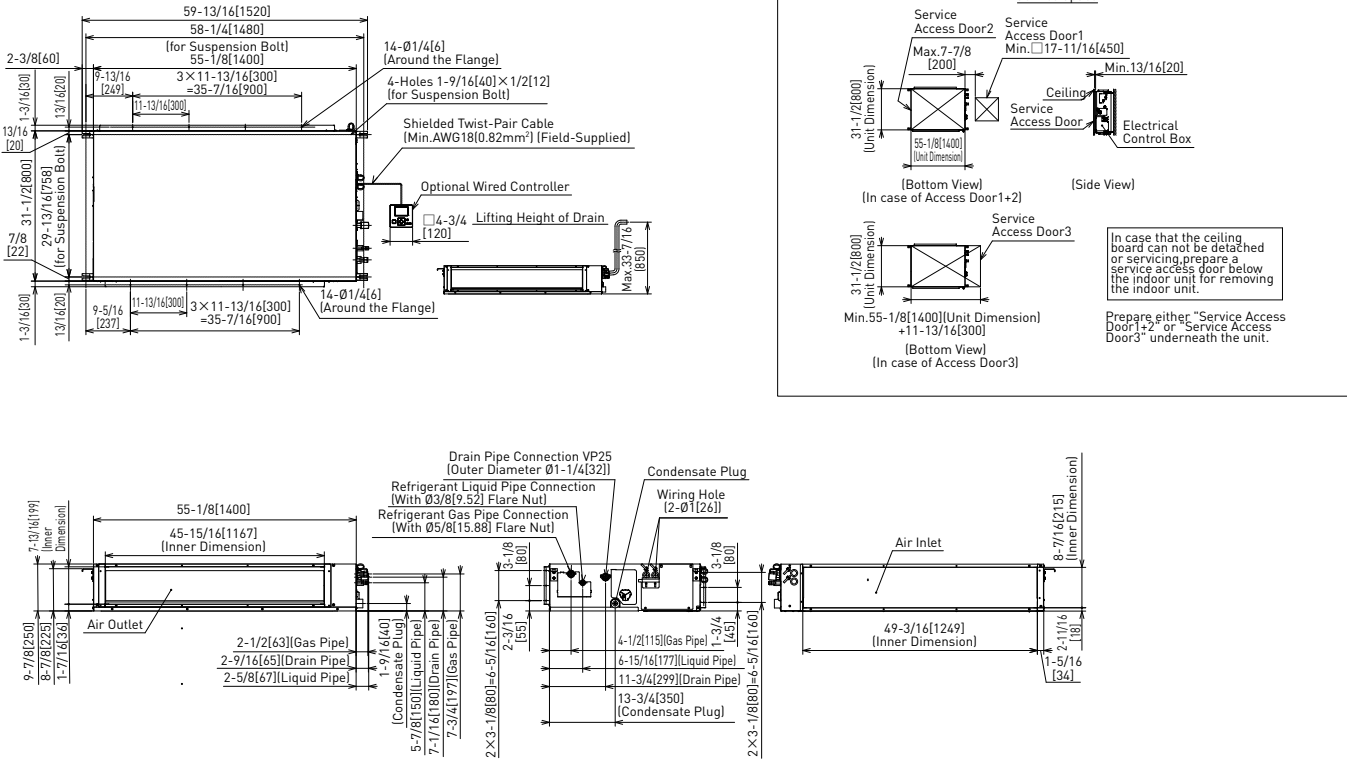


Ducted (Medium ESP)
Models: RPIM-4.0FSN3,RPIM-5.0FSN3 and RPIM-6.0FSN3

inch: mm

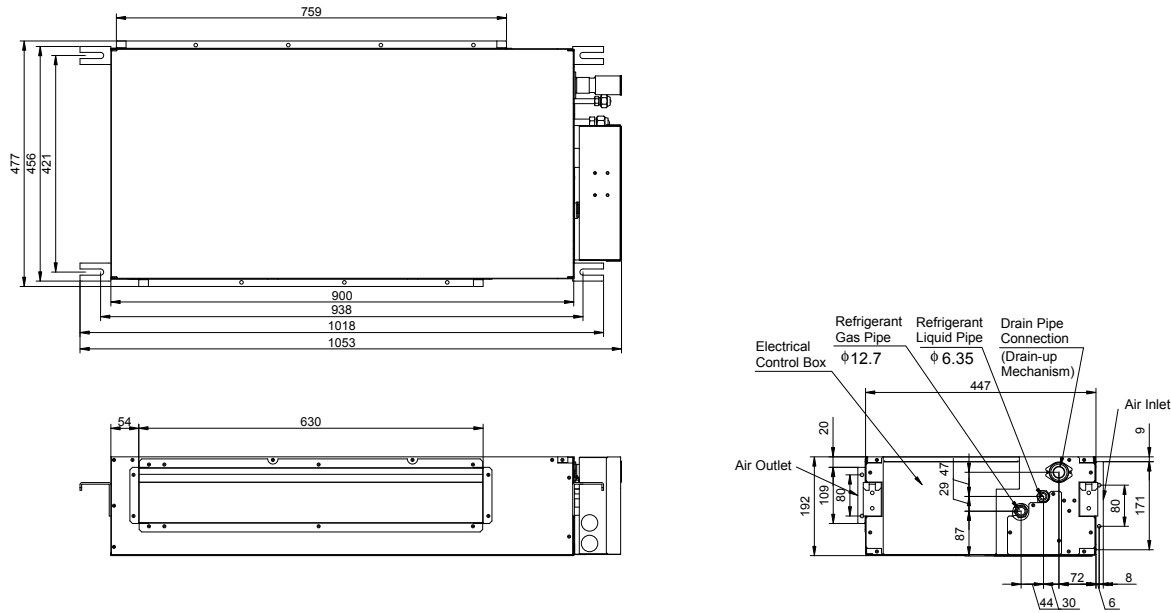
Ducted (Slim)
Models: RPIZ- 0.8~1.5FSNQS/P

Unit: mm



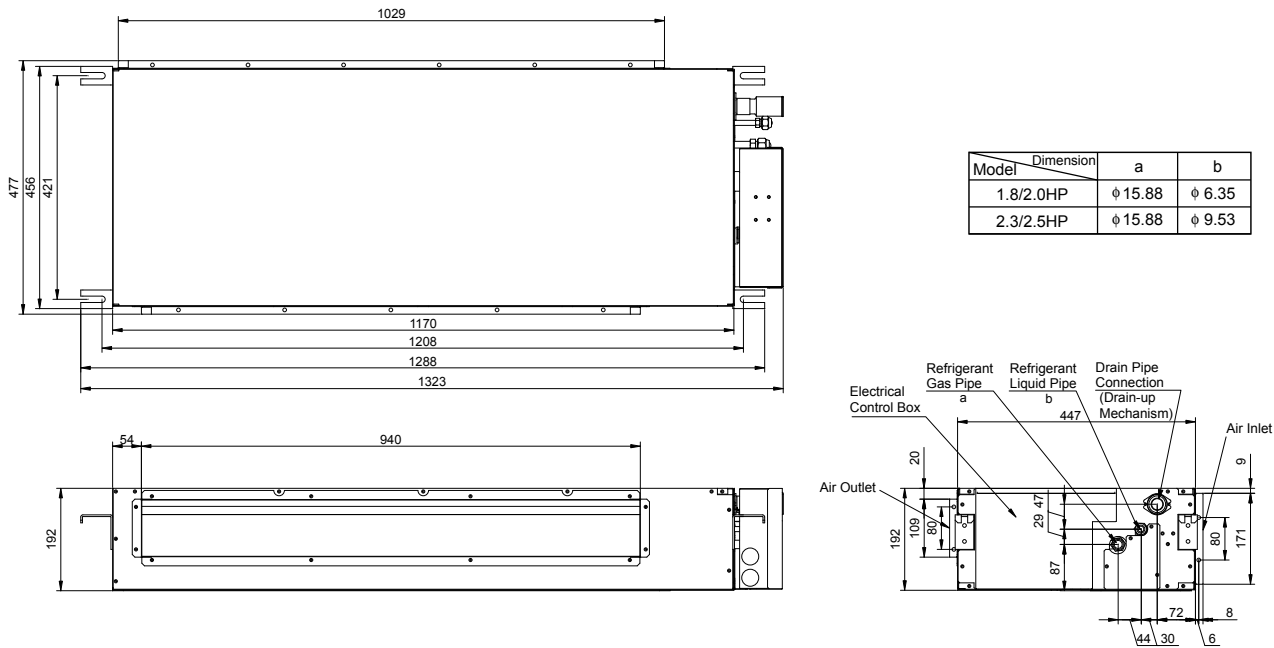
Ducted (Compact)
Models: RPIZ- 0.8~1.5FSN1Q/P

Unit: mm



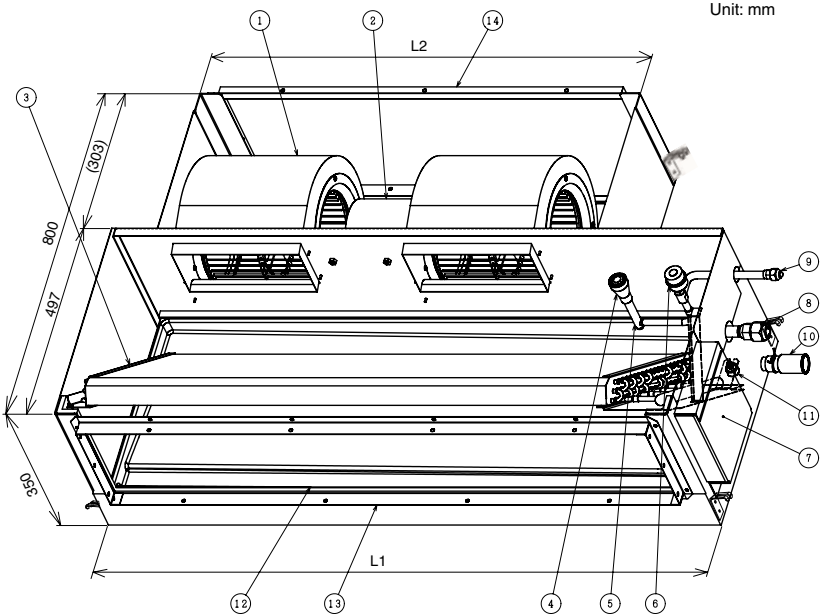
Ducted (Compact)
Models: RPIZ-1.8~2.5FSN1Q/P

Unit: mm



Ducted (Larger Air Volume)
Models: RPI-3.0FSN2SQ - RPI-6.0FSN2SQ

Unit: mm

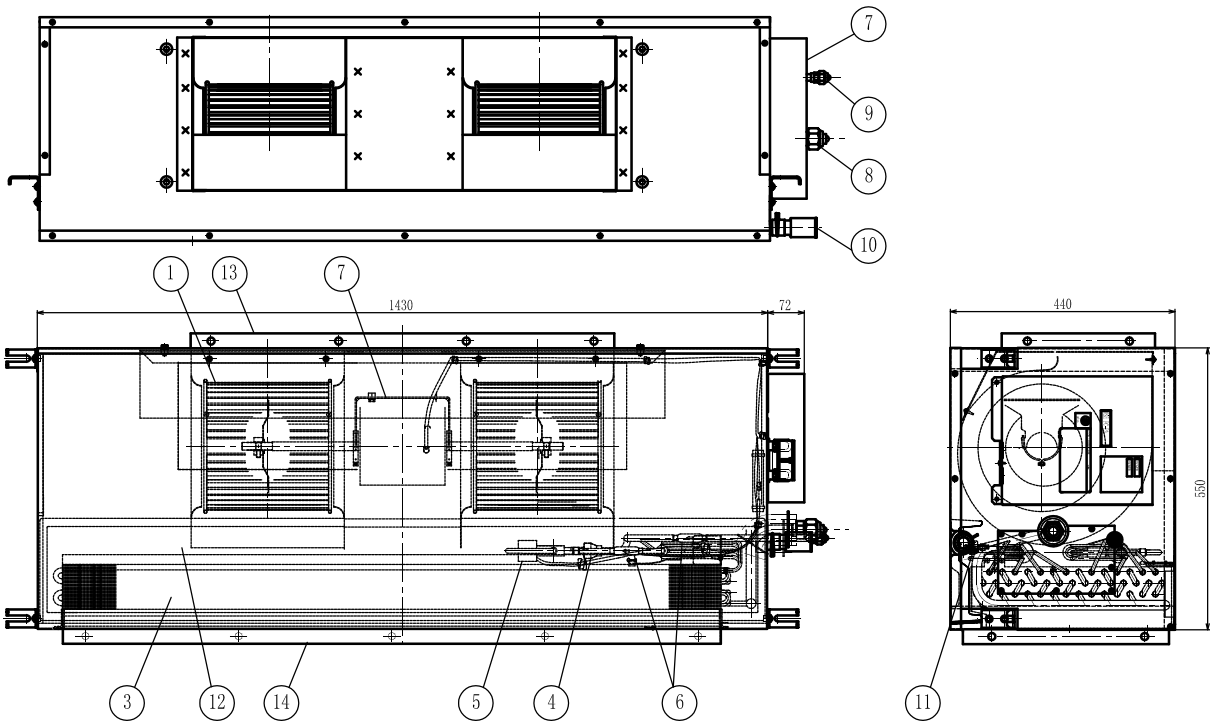


No.	Part Name
1	Fan
2	Fan Motor
3	Heat Exchanger
4	Distributor
5	Strainer
6	Micro-Computer Control Expansion Valve
7	Electrical Control Box
8	Refrigerant Gas Pipe Connection
9	Refrigerant Liquid Pipe Connection
10	Drain Pipe Connection
11	Float Switch
12	Drain Pan
13	Air Outlet
14	Air Inlet

Model	L1	L2
RPI-3.0FSN2SQ	1,076	879
RPI-4.0FSN2SQ	1,076	879
RPI-5.0FSN2SQ	1,300	1,000
RPI-6.0FSN2SQ	1,300	1,000

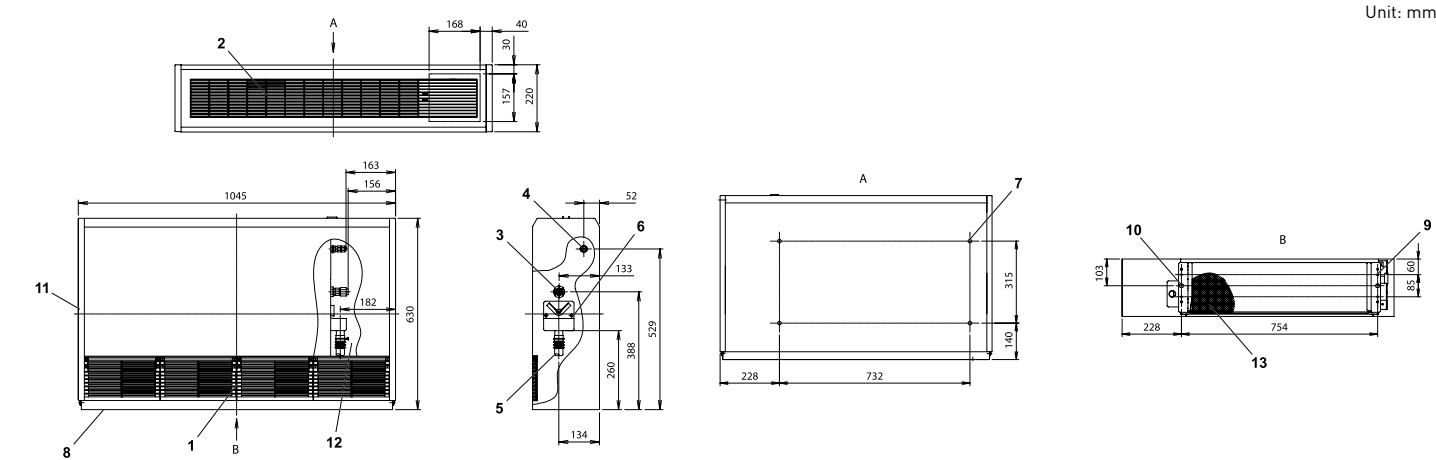
Ducted (Larger Air Volume)
Model: RPI-7.0FSN2SQ

Unit: mm



Dimensions

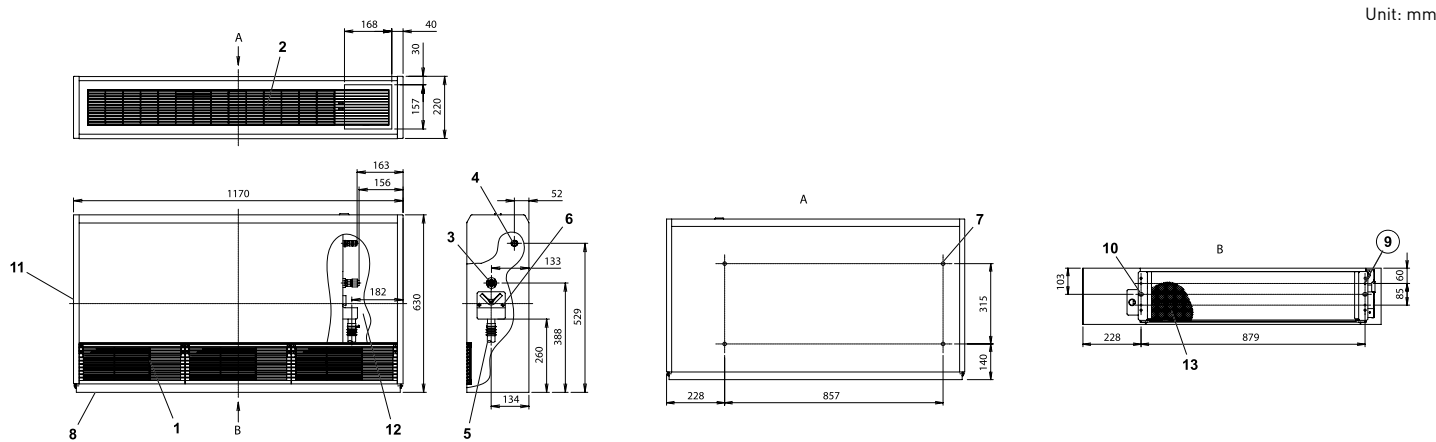
Floor Exposed
Model: RPF-1.0FSN2E



Number	Description	Remarks
1	Air inlet	
2	Air outlet	
3	Refrigerant connection (gas)	Flare nut. ø12.7
4	Refrigerant connection (liquid)	Flare nut. ø6.35
5	Drain connection	
6	Drain pan	
7	Holes to fix the unit to the wall	(4×) ø14 (behind)
8	Adjusting screw	For the installation
9	Holes to fix the unit to the floor	(4×) ø7, bolts for wood (4×) M5
10	Holes to fix the unit to the floor	(2×) ø12.5×18, bolts (2×) M8
11	Wiring hole	Left-hand side
12	Space for pipe connection	Right-hand side
13	Filter	

All measurements are in mm.

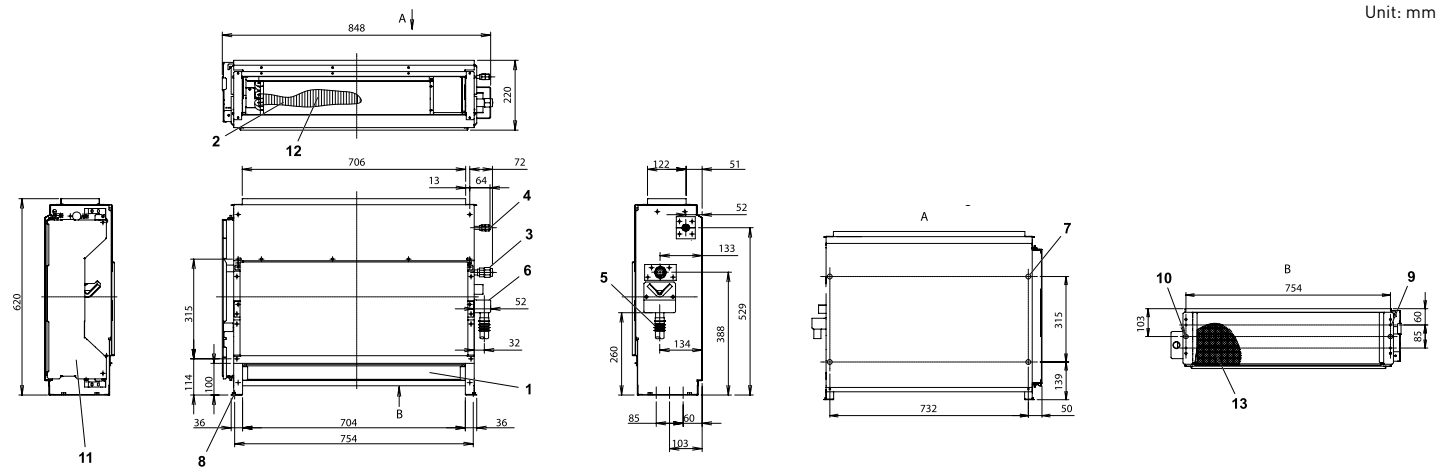
Floor Exposed
Model: RPF-1.5FSN2E



Number	Description	Remarks
1	Air inlet	
2	Air outlet	
3	Refrigerant connection (gas)	Flare nut. ø12.7
4	Refrigerant connection (liquid)	Flare nut. ø6.35
5	Drain connection	
6	Drain pan	
7	Holes to fix the unit to the wall	(4×) ø14 (behind)
8	Adjusting screw	For the installation
9	Holes to fix the unit to the floor	(4×) ø7, bolts for wood (4×) M5
10	Holes to fix the unit to the floor	(2×) ø12.5×18, bolts (2×) M8
11	Wiring hole	Left-hand side
12	Space for pipe connection	Right-hand side
13	Filter	

All measurements are in mm.

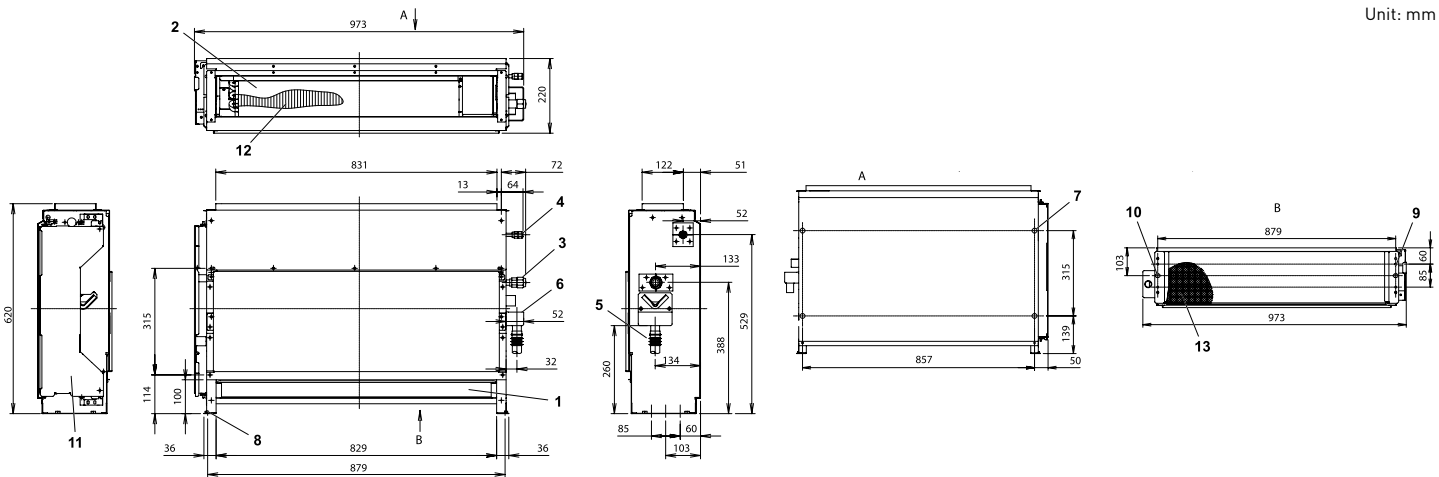
Floor Concealed
Model: RPF-1.0FSN2E



Number	Description	Remarks
1	Air inlet	
2	Air outlet	
3	Refrigerant connection (gas)	Flare nut. ø12.7
4	Refrigerant connection (liquid)	Flare nut. ø6.35
5	Drain connection	
6	Drain pan	
7	Holes to fix the unit to the wall	(4×) ø14 (behind)
8	Adjusting screw	For the installation
9	Holes to fix the unit to the floor	(4×) ø7, bolts for wood (4×) M5
10	Holes to fix the unit to the floor	(2×) ø12.5×18, bolts (2×) M8
11	Electrical box	
12	Evaporator	
13	Filter	

All measurements are in mm.

Floor Concealed
Model: RPF-1.5FSN2E



Number	Description	Remarks
1	Air inlet	
2	Air outlet	
3	Refrigerant connection (gas)	Flare nut. ø12.7
4	Refrigerant connection (liquid)	Flare nut. ø6.35
5	Drain connection	
6	Drain pan	
7	Holes to fix the unit to the wall	(4×) ø14 (behind)
8	Adjusting screw	For the installation
9	Holes to fix the unit to the floor	(4×) ø7, bolts for wood (4×) M5
10	Holes to fix the unit to the floor	(2×) ø12.5×18, bolts (2×) M8
11	Electrical box	
12	Evaporator	
13	Filter	

All measurements are in mm.

Models: RPFC-1.8~2.5FSNQ



Models: RPFC-3.0~4.0FSNQ



Model: RPFC-5.0FSNQ



Models: RPC-1.5FSN3, RPC-2.0FSN3

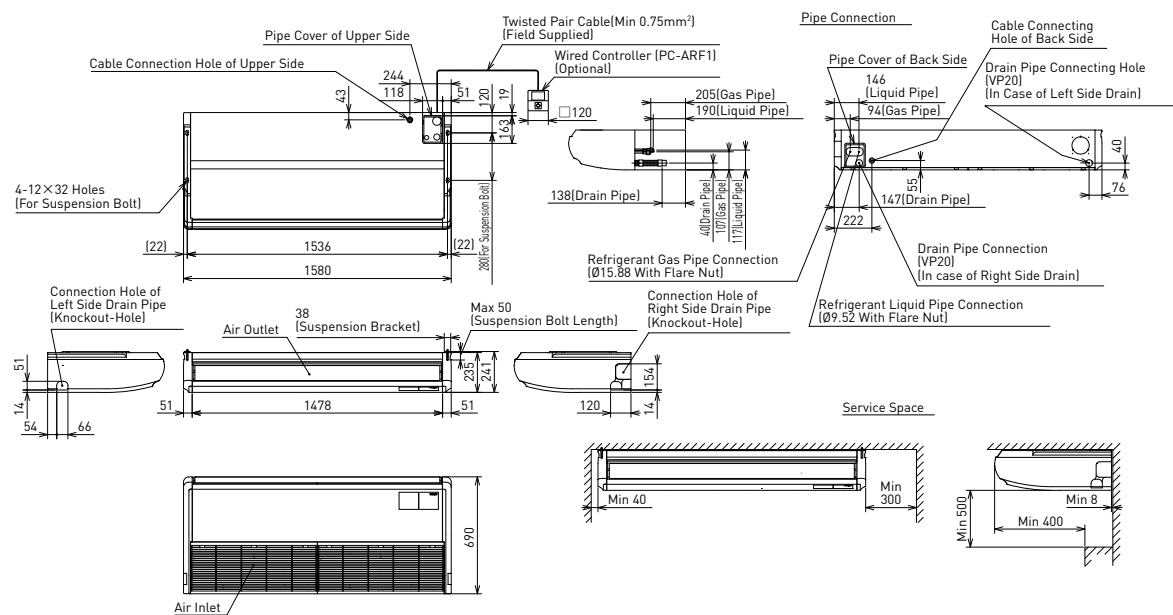


Models: RPC-2.5FSN3, RPC-3.0FSN3



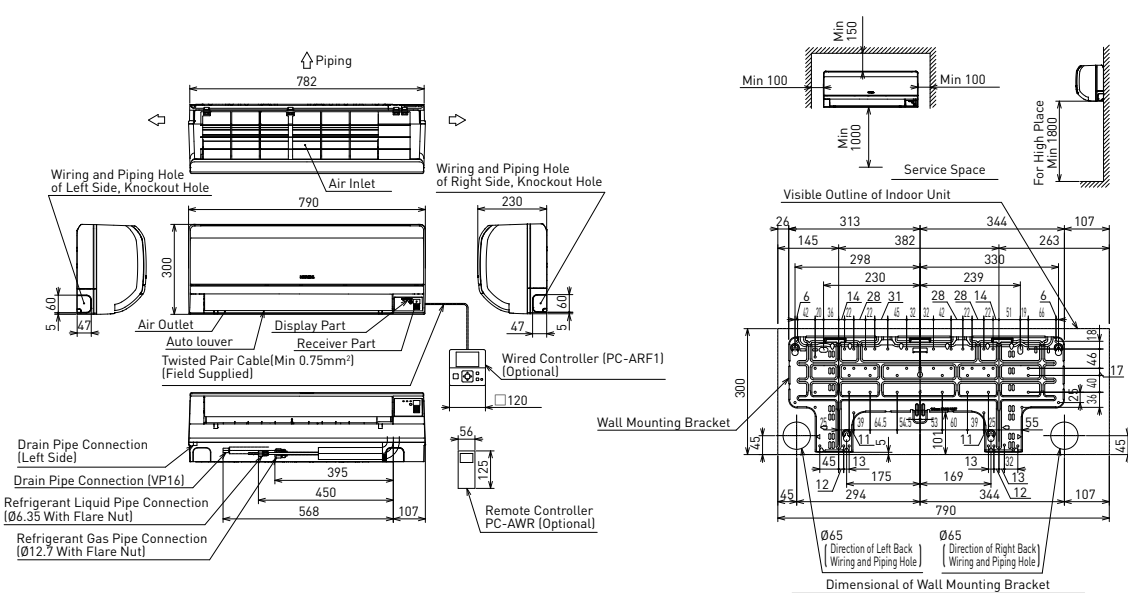
Models: RPC-4.0FSN3, RPC-5.0FSN3, RPC-6.0FSN3

Unit: mm



Models: RPK-0.6FSN3M, RPK-0.8FSN3M, RPK-1.0FSN3M

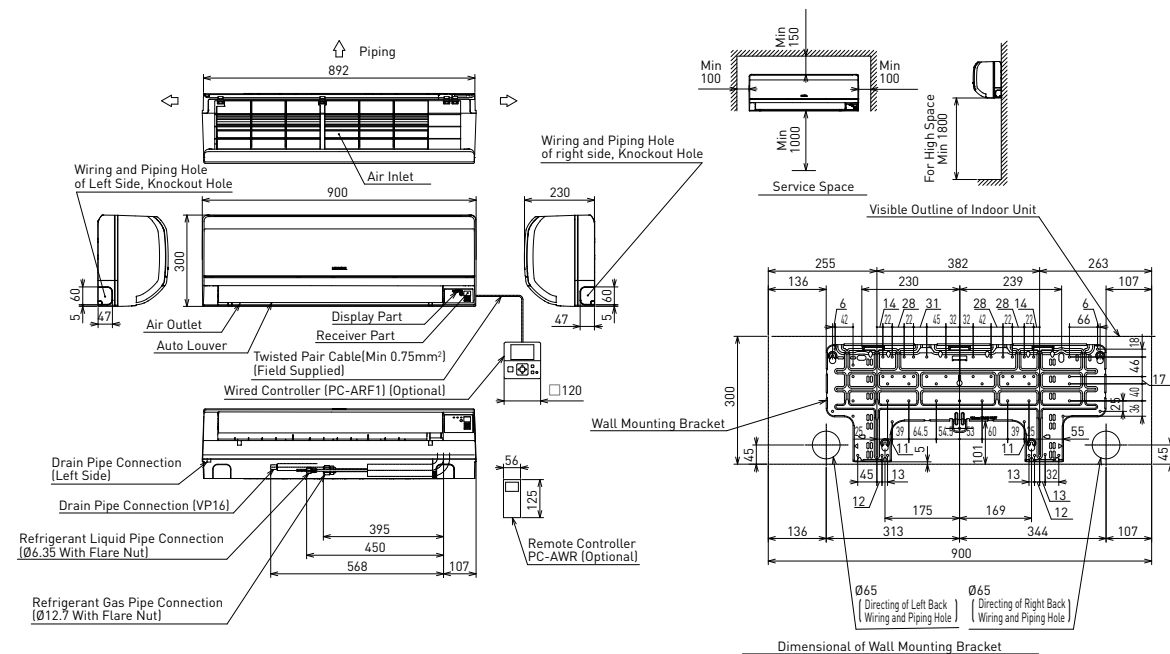
Unit: mm



1. Taking out of Drain Pipe is Possible from both sides of Knockout Holes.
In case of the left side, mount a drain hose to drain pipe connection of the left side.
2. Pay attention to a gap of center position of the Bracket and the Unit.
Mount them according to the figure on right.

Model: RPK-1.5FSN3M

Unit: mm

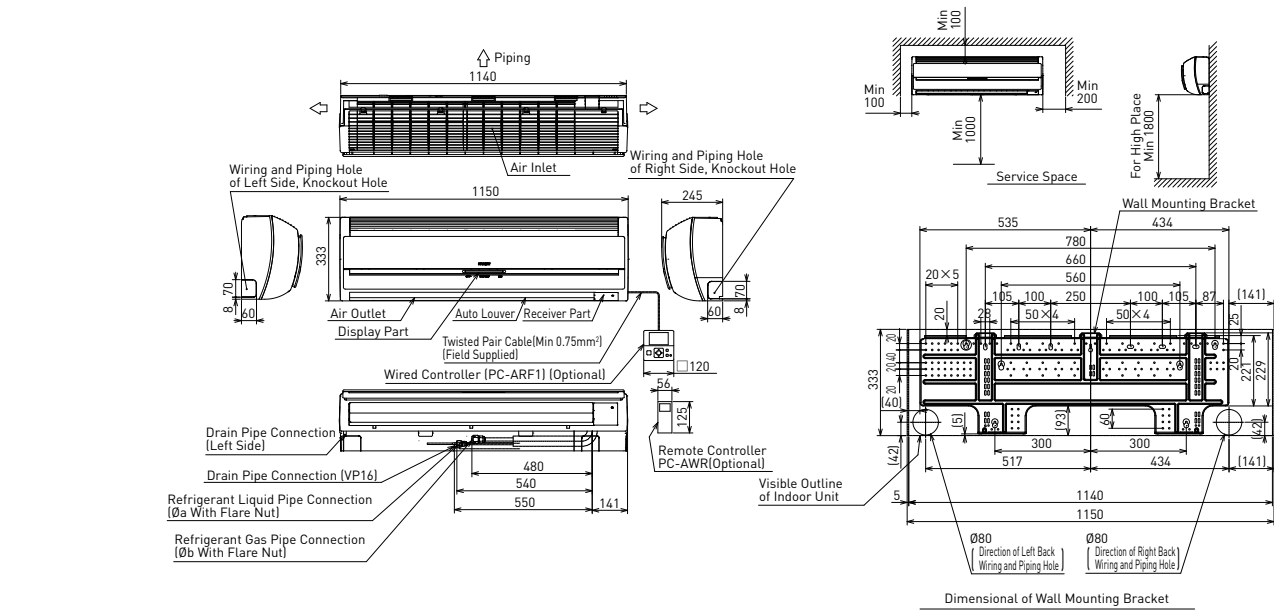


Note
1. Taking out of Drain Pipe is Possible from both sides of Knockout Holes.
In case of the left side, mount a drain hose to drain pipe connection of the left side.

Wall Mounted

Models: RPK-2.0FSN3M, RPK-2.5FSN3M, RPK-3.0FSN3M and RPK-4.0FSN3M

Unit: mm



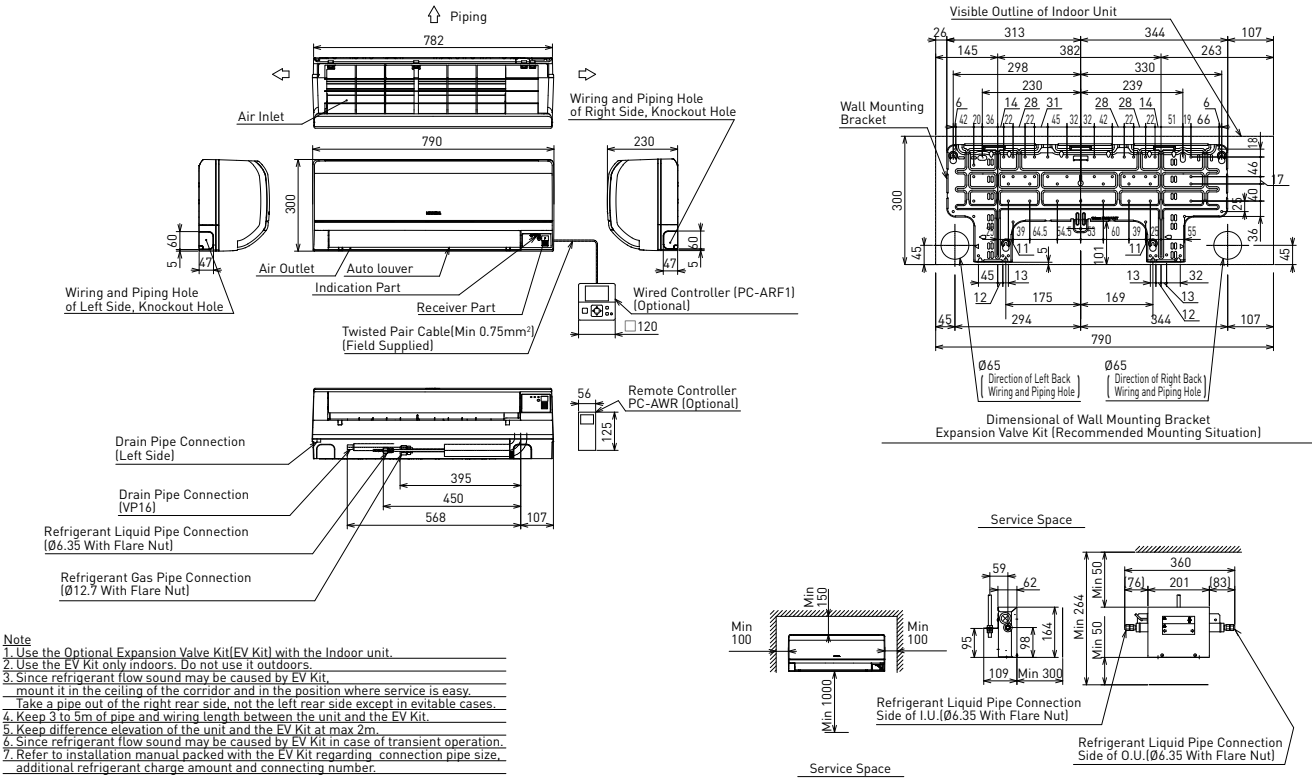
Dimension	Model	2.0HP	2.5-4.0HP
a		6.35	9.52
b		15.88	15.88

Note
1. Taking out of Drain Pipe is Possible from both sides of Knockout Holes.
In case of the left side, mount a drain hose to drain pipe connection of the left side.

Wall Mounted (Expansion Valve Kit, Optional)

Models: RPK-0.6FSNH3M, RPK-0.8FSNH3M, RPK-1.0FSNH3M and EV-1.5N1 (EXPANSION VALVE KIT, OPTIONAL)

Unit: mm

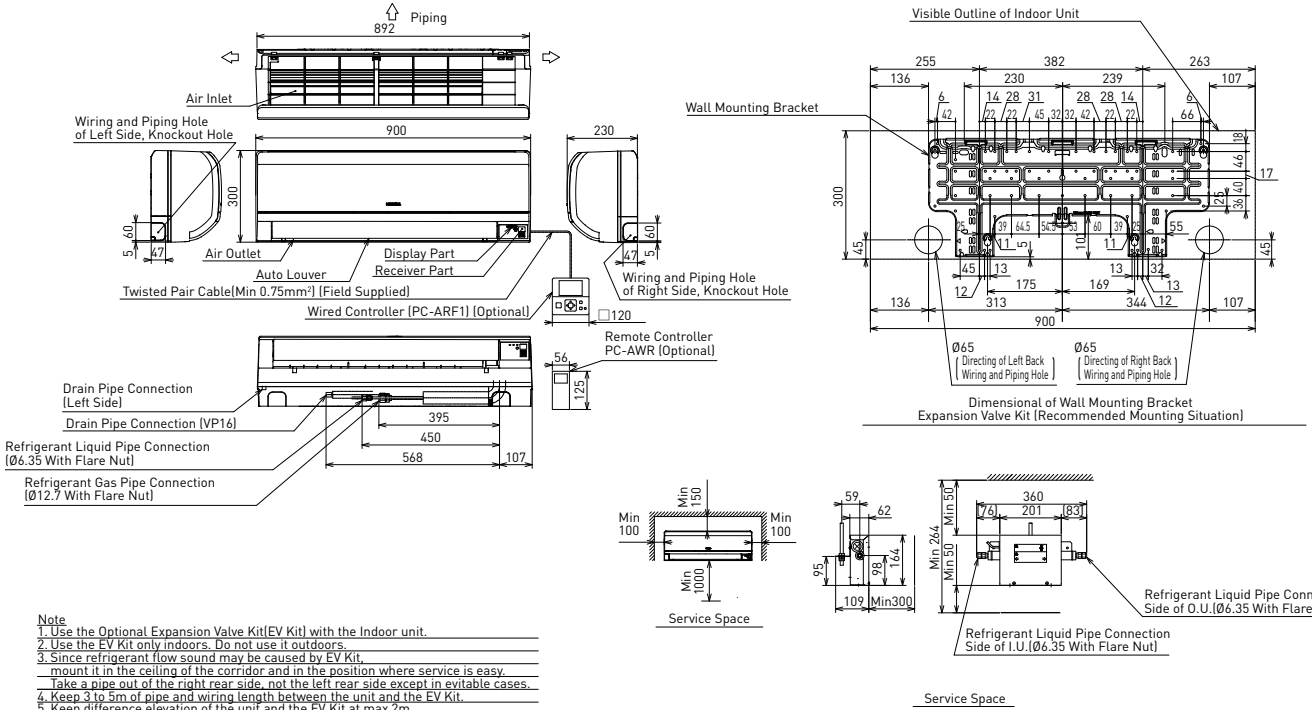


Note
1. Use the Optional Expansion Valve Kit (EV Kit) with the Indoor unit.
2. Use the EV Kit only indoors. Do not use it outdoors.
3. Since refrigerant flow sound may be caused by EV Kit, mount it in the ceiling of the corridor and in the position where service is easy.
Take a pipe out of the right rear side, not the left rear side except in evitable cases.
4. Keep 3 to 5m of pipe and wiring length between the unit and the EV Kit.
5. Keep difference elevation of the unit and the EV Kit at max 2m.
6. Since refrigerant flow sound may be caused by EV Kit in case of transient operation.
7. Refer to installation manual packed with the EV Kit regarding connection pipe size, additional refrigerant charge amount and connecting number.

Wall Mounted (Expansion Valve Kit, Optional)

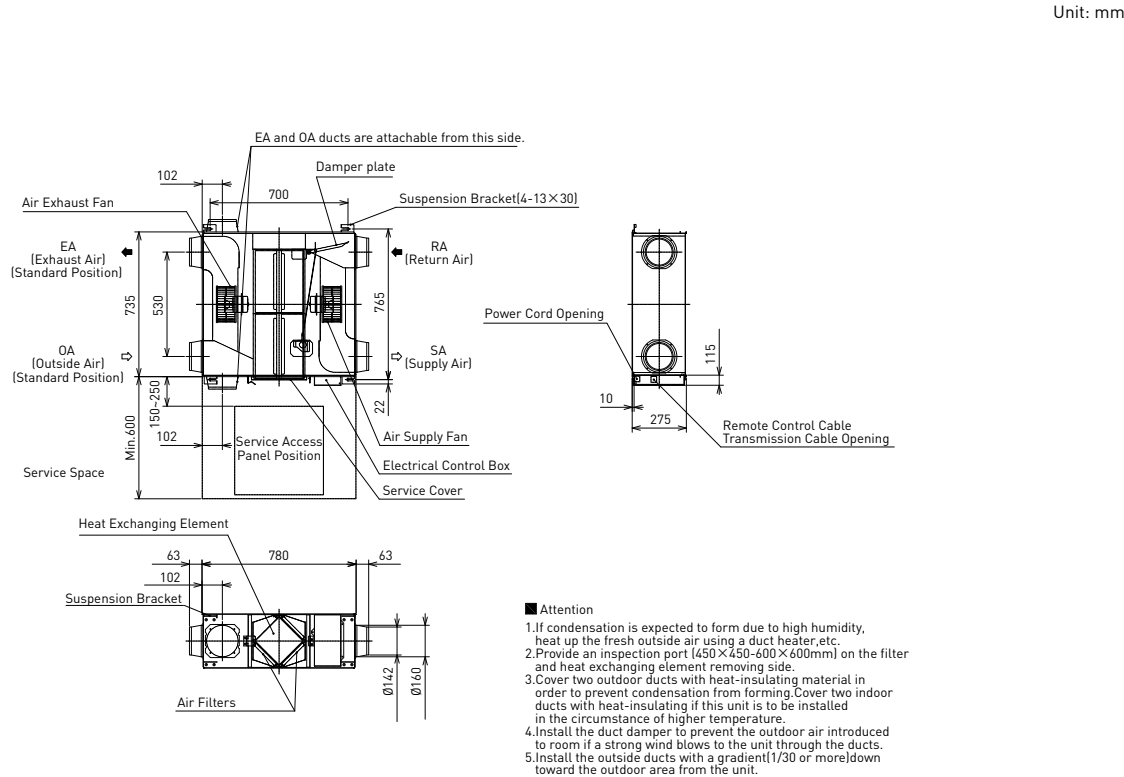
Models: RPK-1.5FSNH3M and EV-1.5N1 (EXPANSION VALVE KIT, OPTIONAL)

Unit: mm

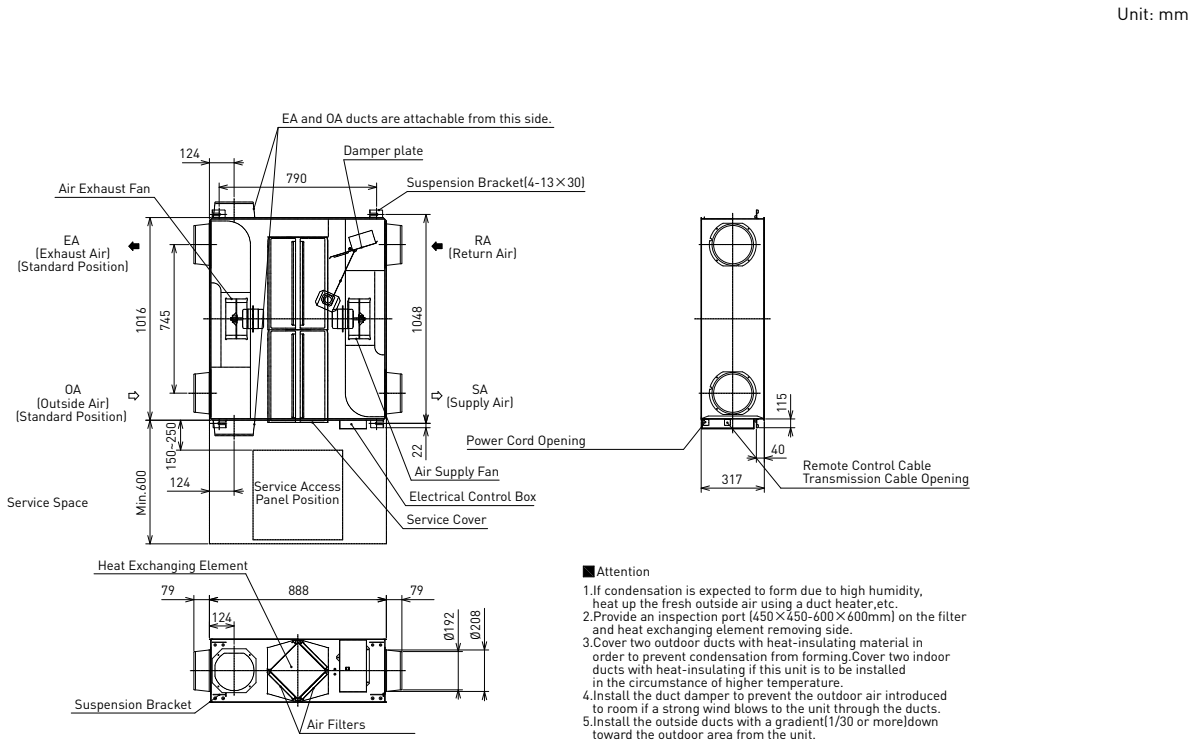


Note
1. Use the Optional Expansion Valve Kit (EV Kit) with the Indoor unit.
2. Use the EV Kit only indoors. Do not use it outdoors.
3. Since refrigerant flow sound may be caused by EV Kit, mount it in the ceiling of the corridor and in the position where service is easy.
Take a pipe out of the right rear side, not the left rear side except in evitable cases.
4. Keep 3 to 5m of pipe and wiring length between the unit and the EV Kit.
5. Keep difference elevation of the unit and the EV Kit at max 2m.
6. Since refrigerant flow sound may be caused by EV Kit in case of transient operation.
7. Refer to installation manual packed with the EV Kit regarding connection pipe size, additional refrigerant charge amount and connecting number.

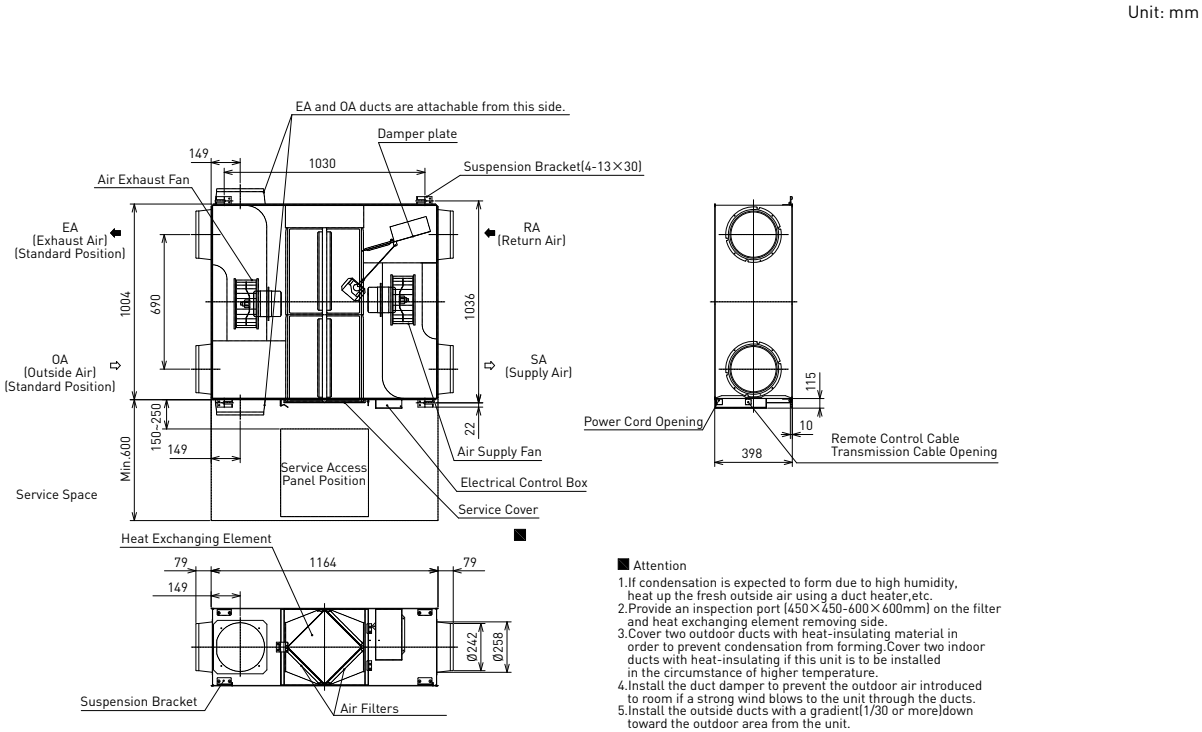
Total Heat Exchanger (Model: KPI-2521)



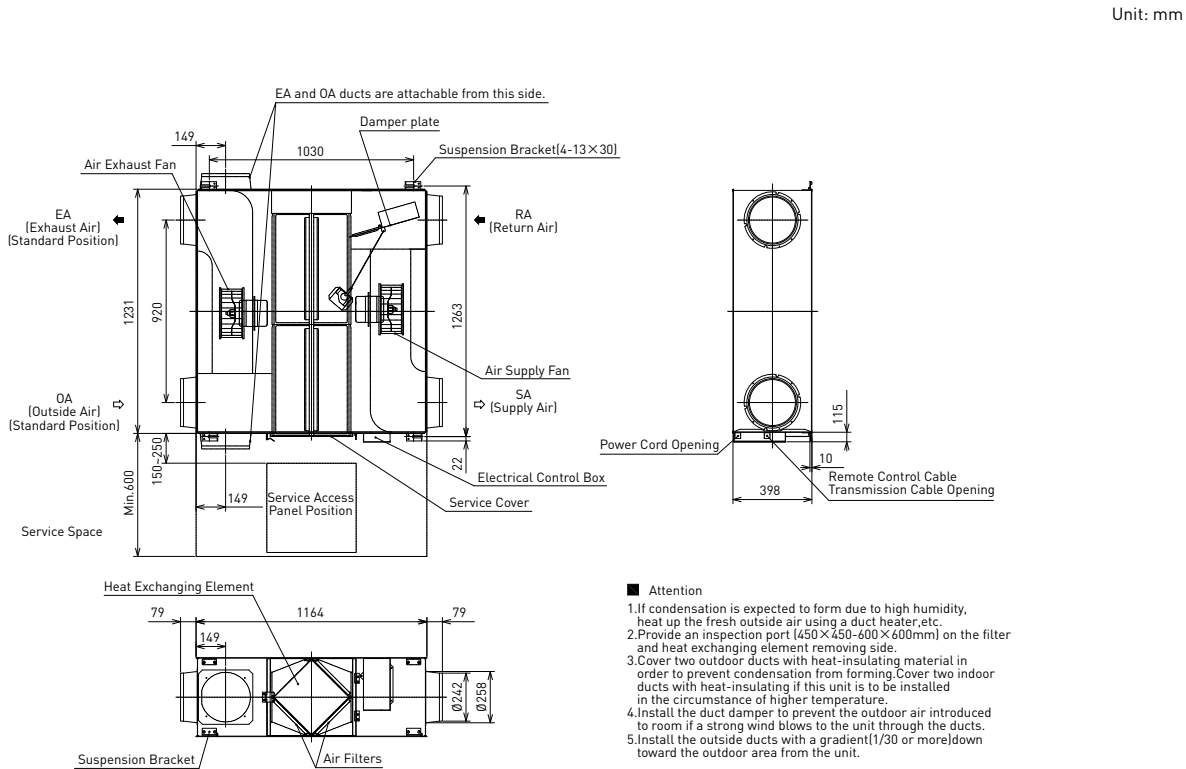
Total Heat Exchanger (Model: KPI-5021)



Total Heat Exchanger (Model: KPI-8021)

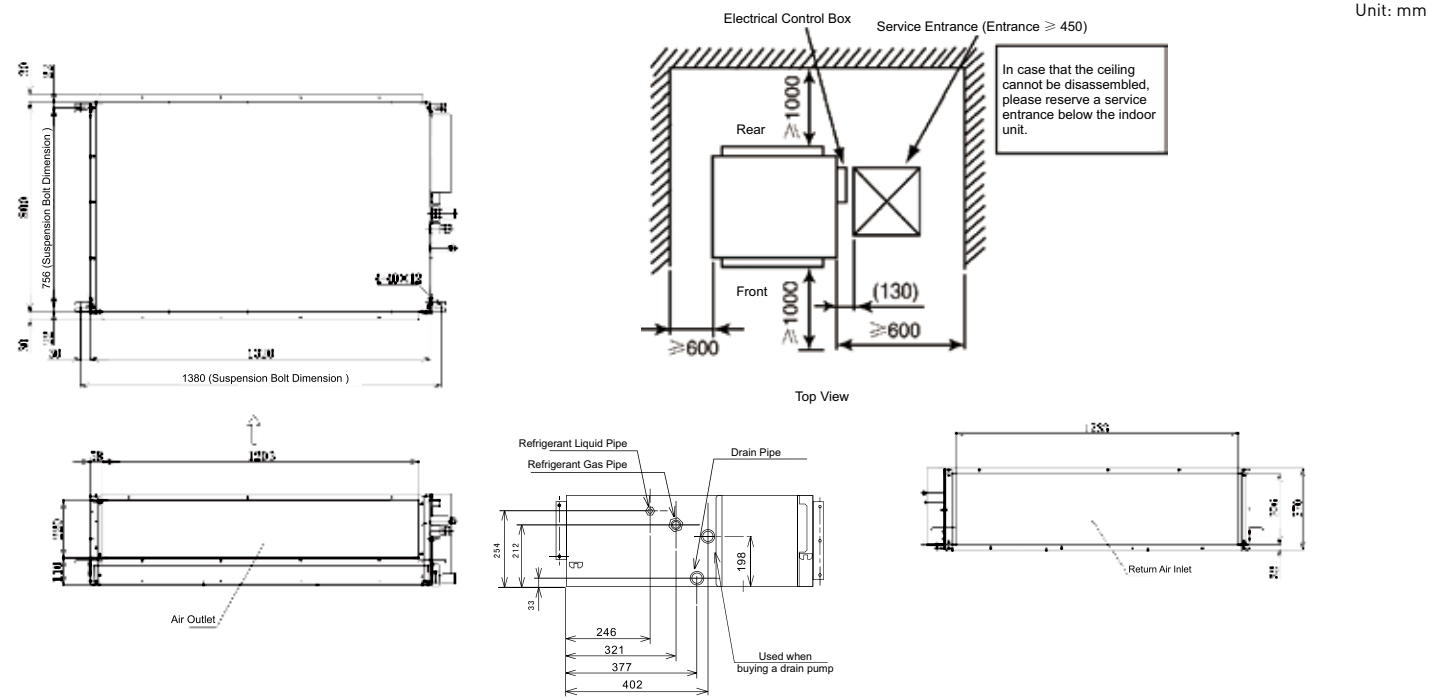


Total Heat Exchanger (Model: KPI-10021)



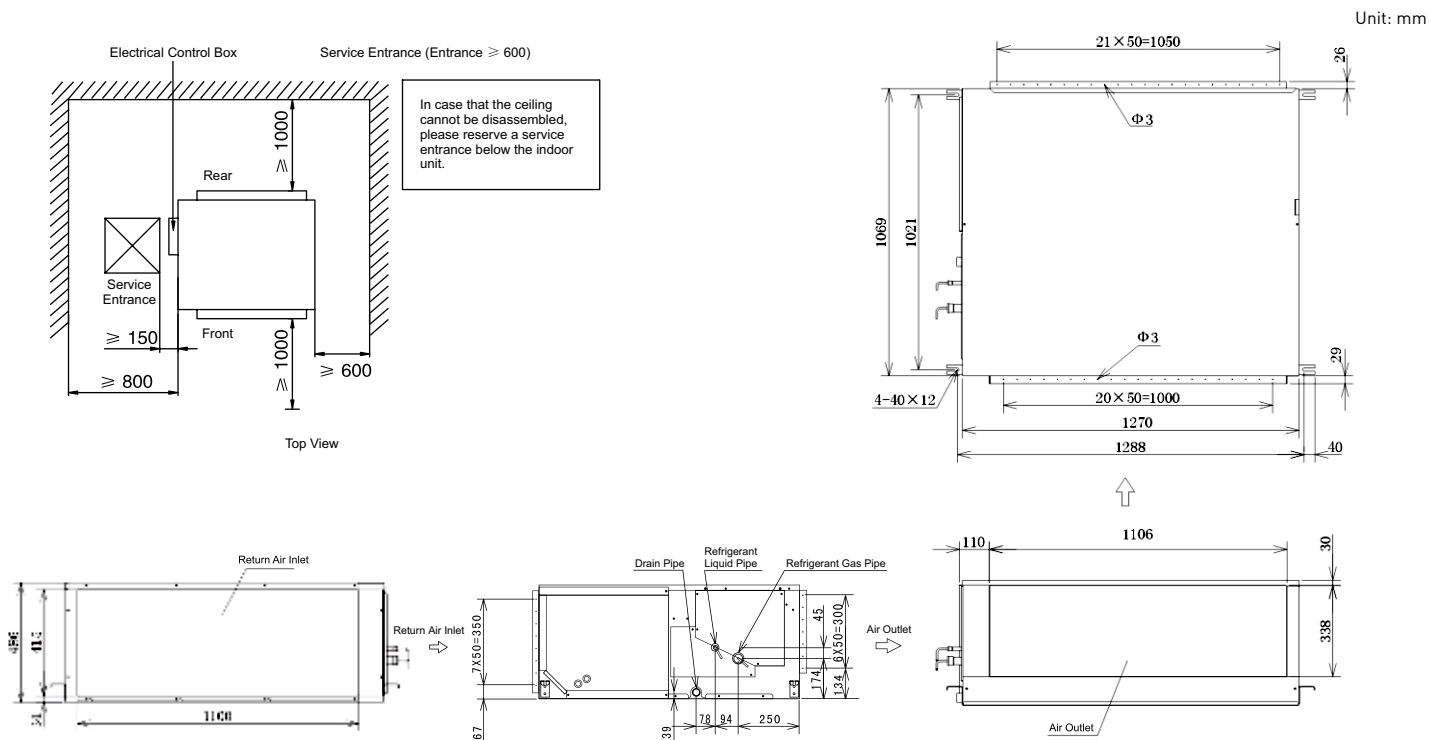
Fresh Air Unit

Model: RPI-5.0KFNQ



Fresh Air Unit

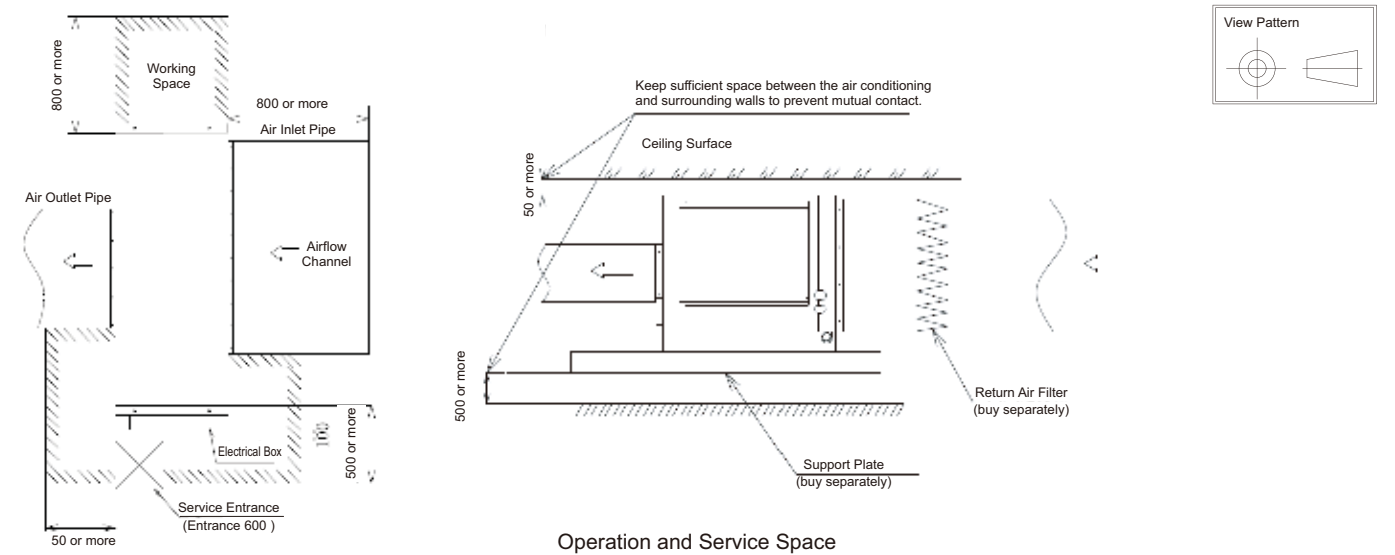
Models: RPI-8.0, 10.0, 12.0KFNQ



Fresh Air Unit

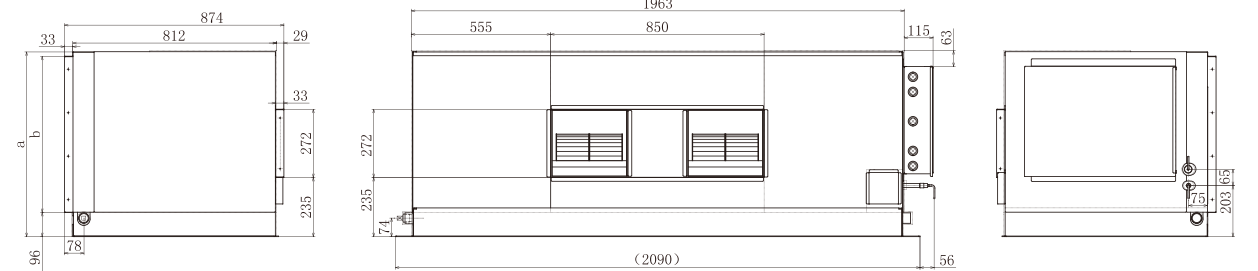
Models: RPI-16.0KFNQL,RPI-16.0KFNQH,RPI-20.0KFNQL,RPI-20.0KFNQH,RPI-20.0KFNQLF,RPI-20.0KFNQHF

nit: mm

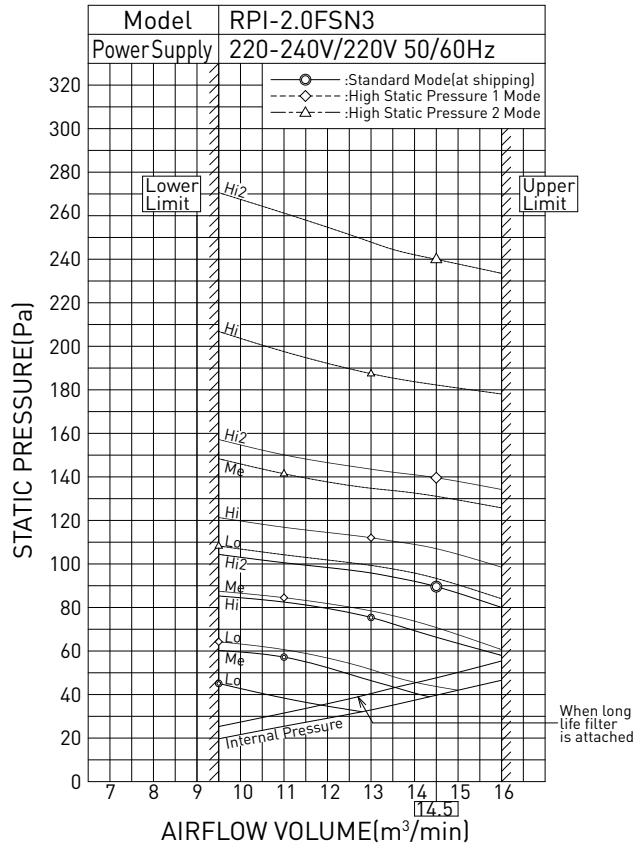


Operation and Service Space

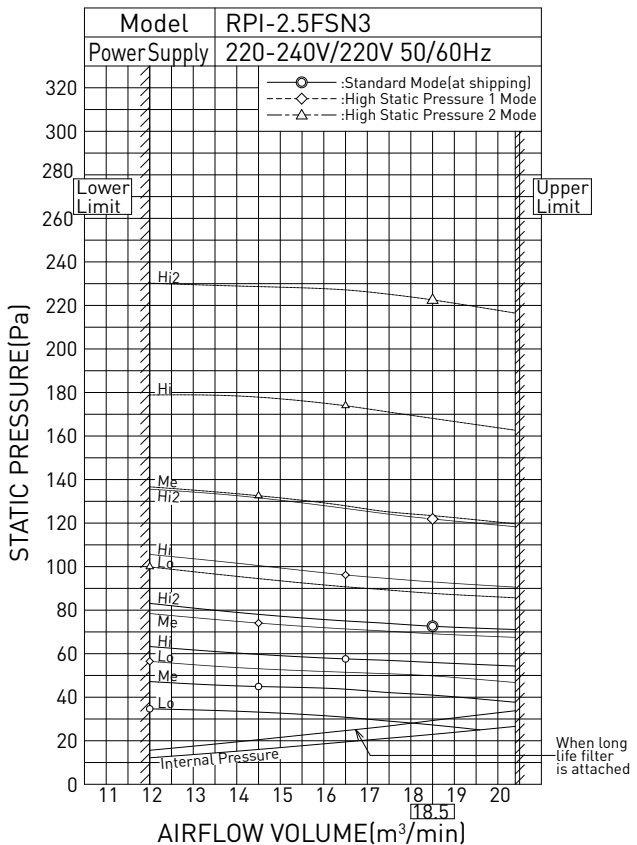
Model \ Dimension	a	b
Type 450	635	522
Type 560	735	622



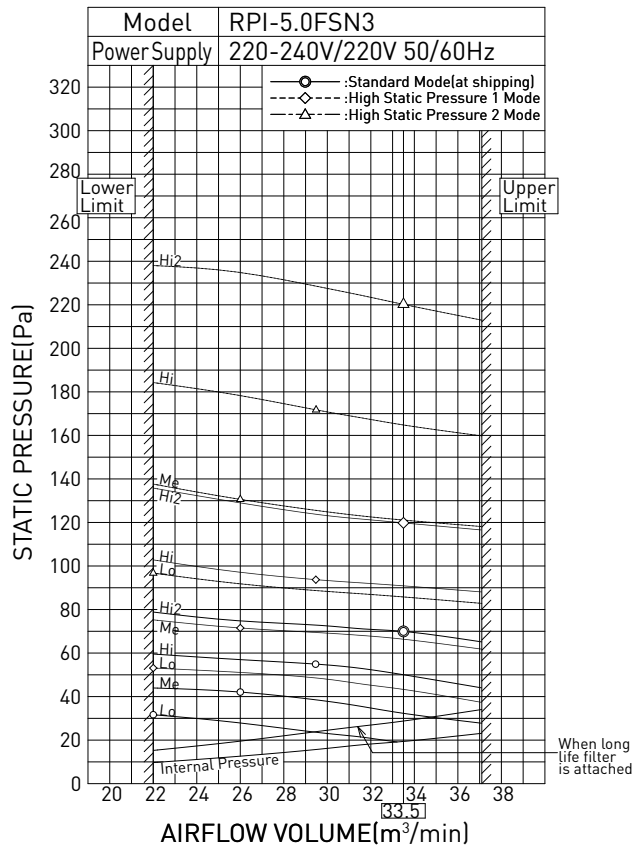
Ducted (High ESP)



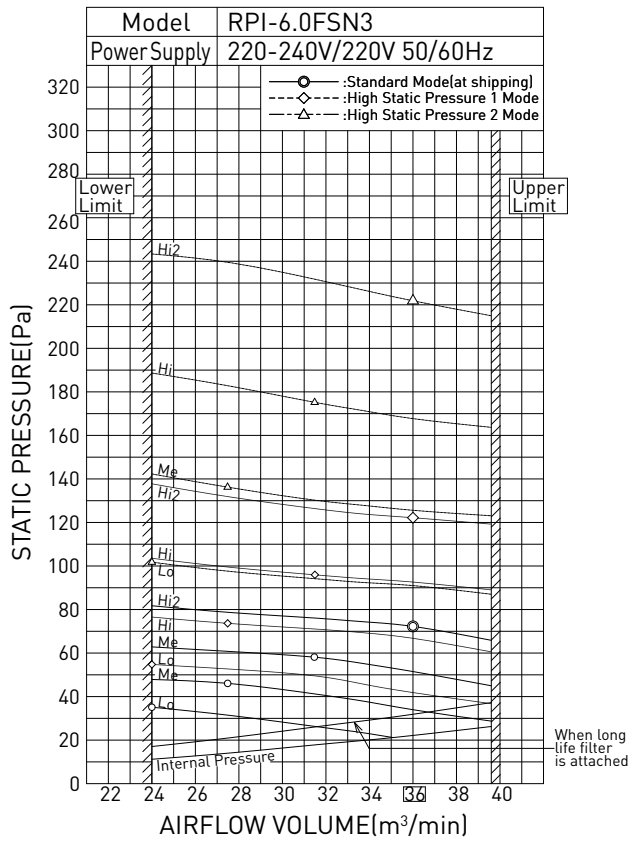
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



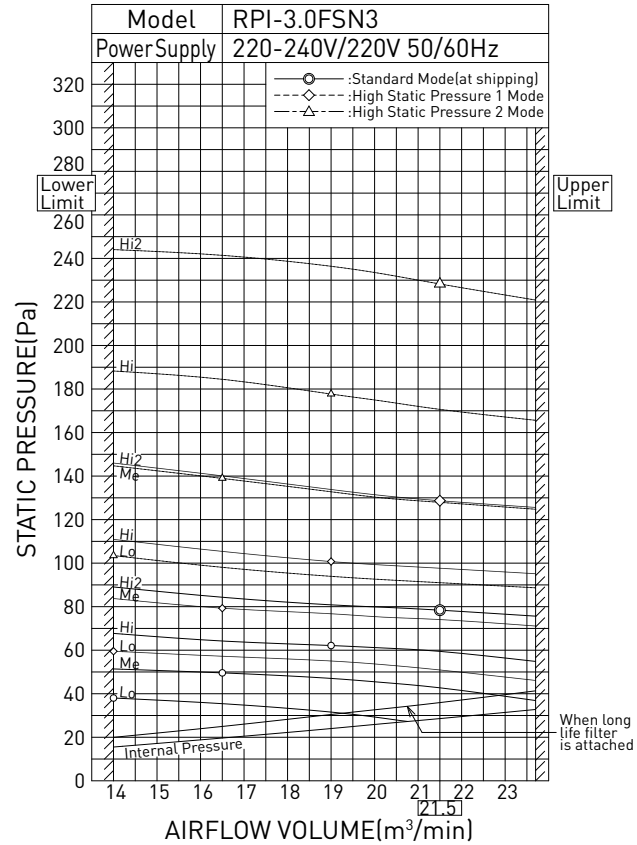
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



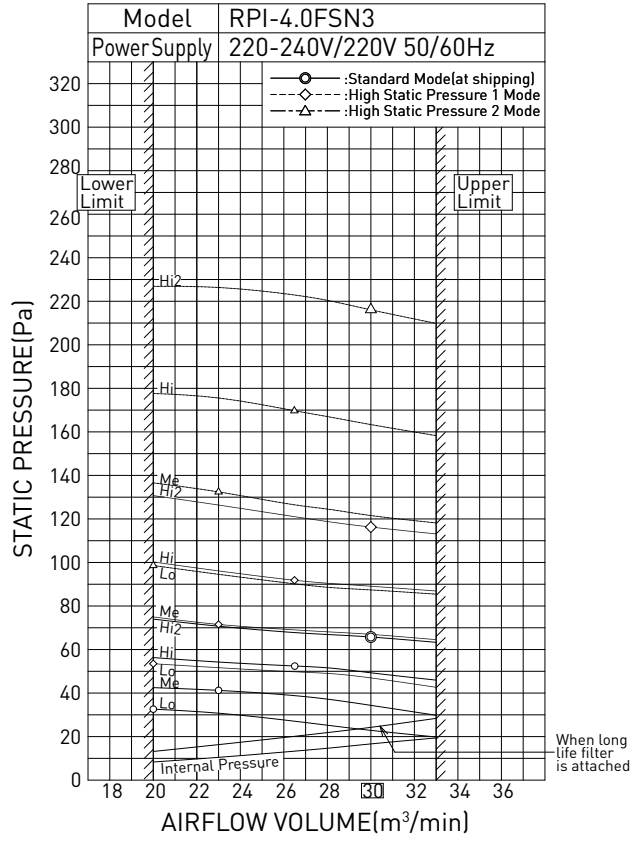
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



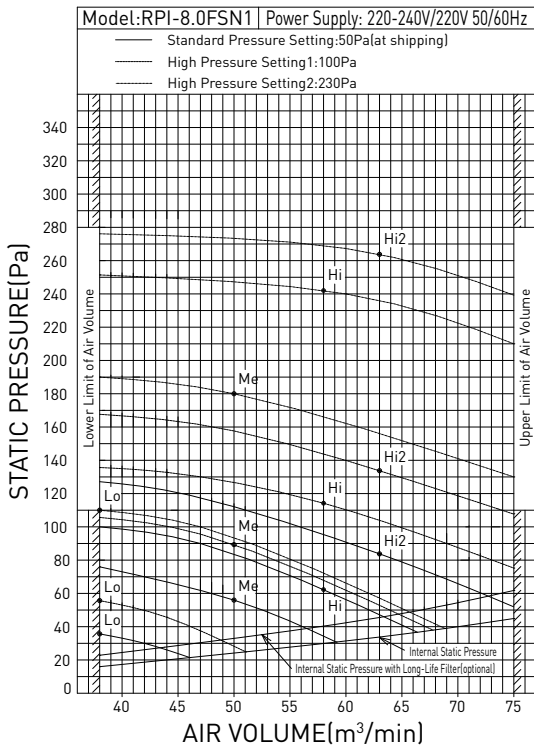
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



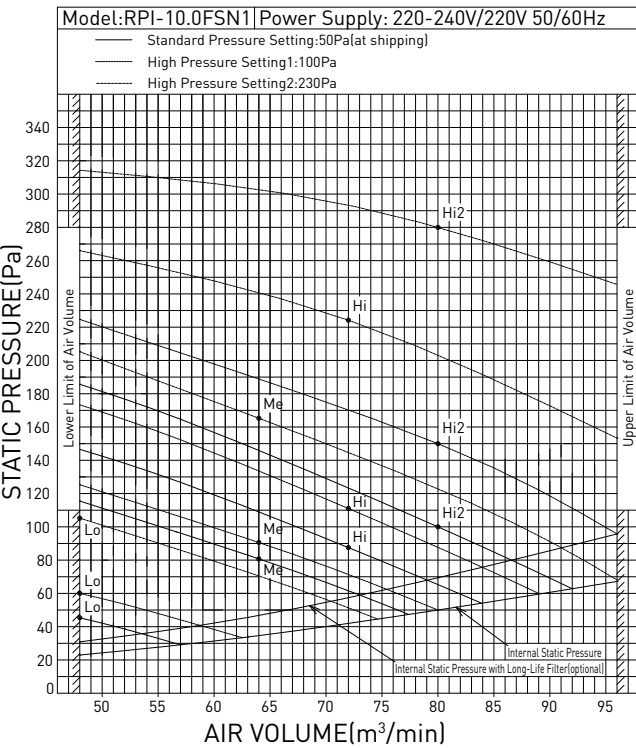
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.

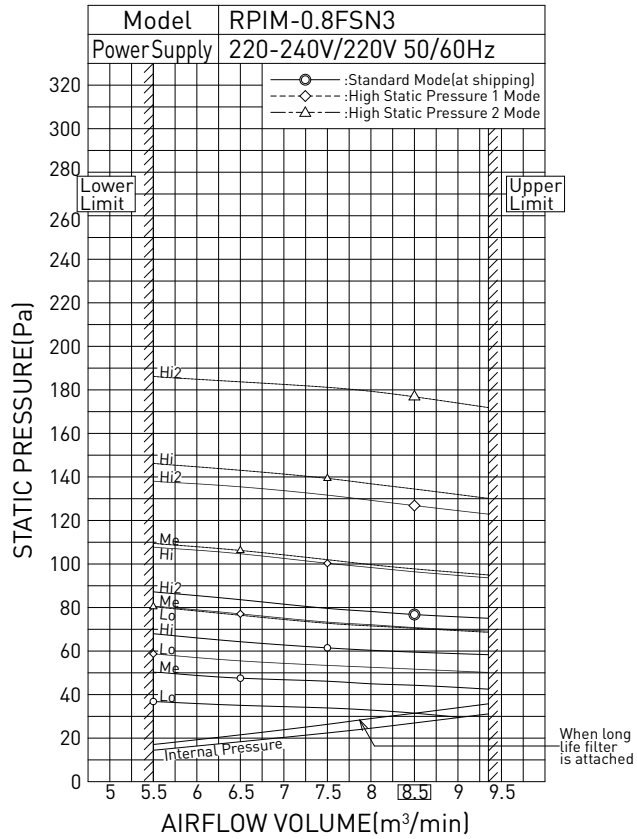


Note) Standard Pressure Setting,High Pressure Setting1,High Pressure Setting2 can be changed by Wired Controller.

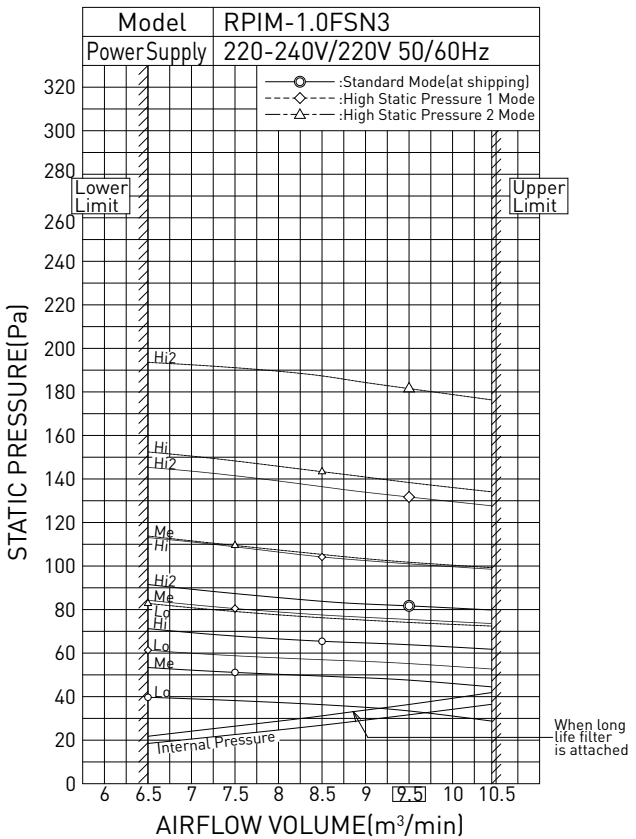


Note) Standard Pressure Setting,High Pressure Setting1,High Pressure Setting2 can be changed by Wired Controller.

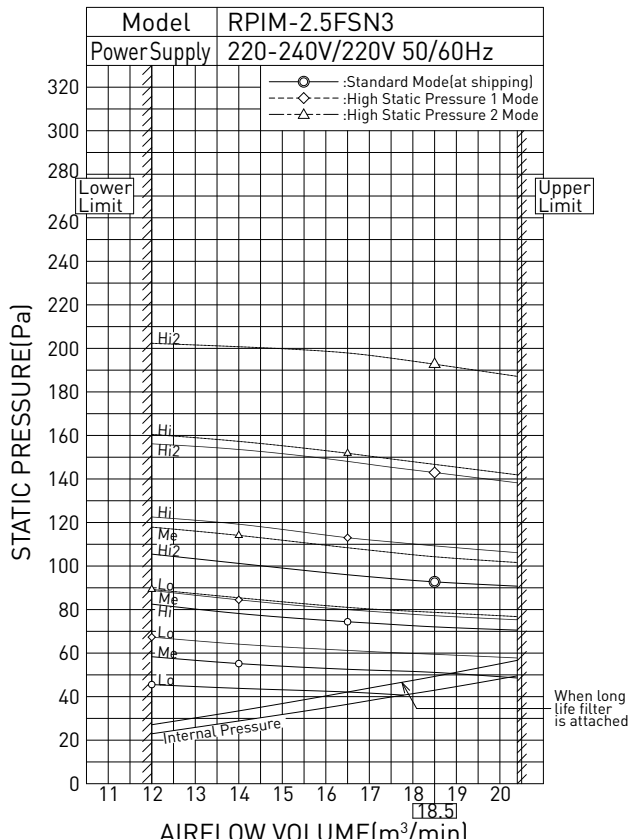
Ducted (Medium ESP)



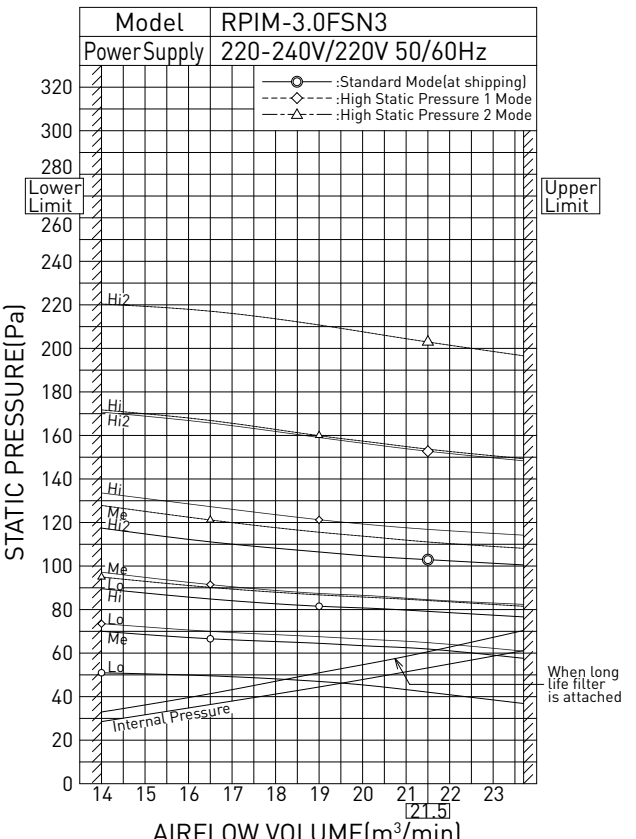
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



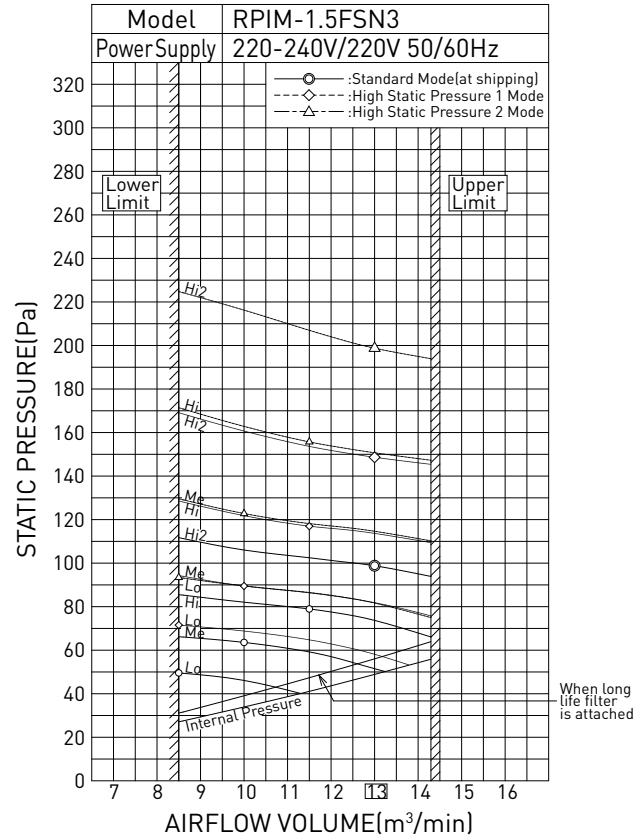
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



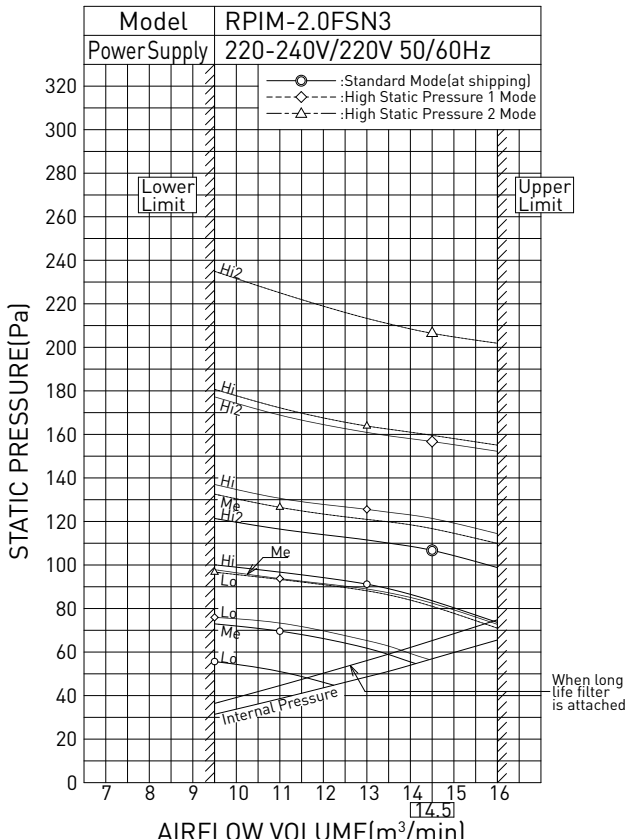
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



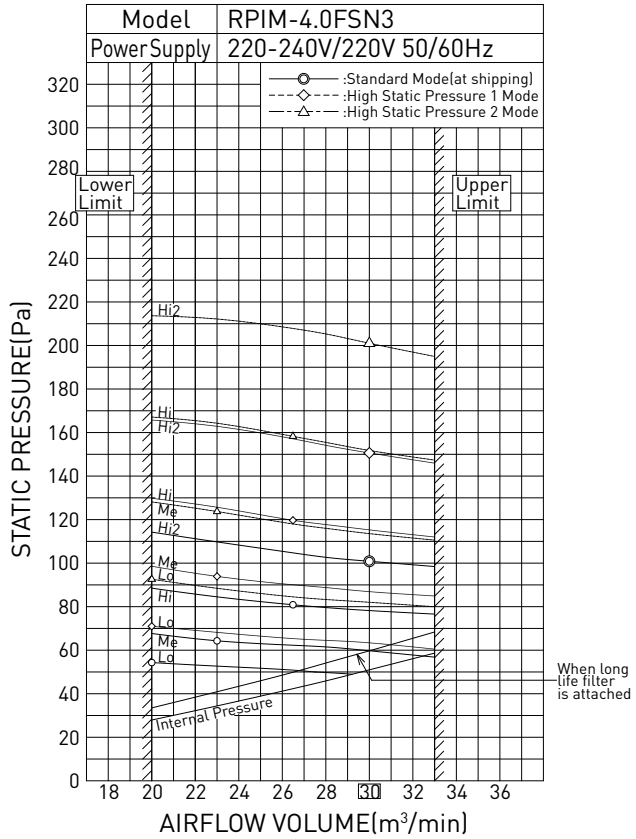
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



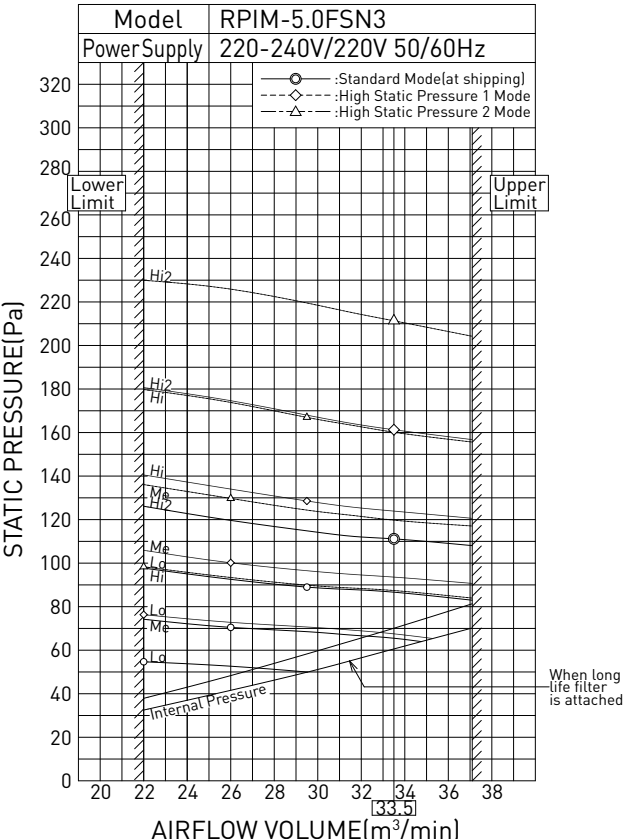
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



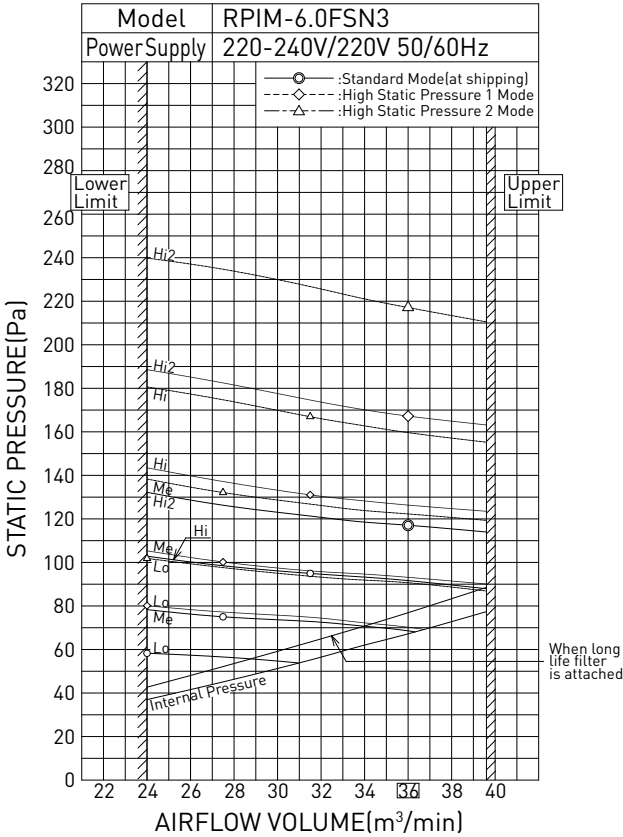
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



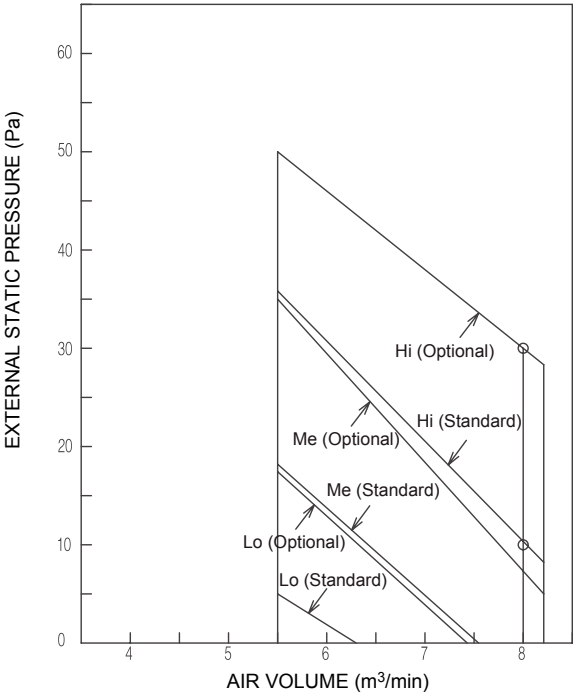
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.



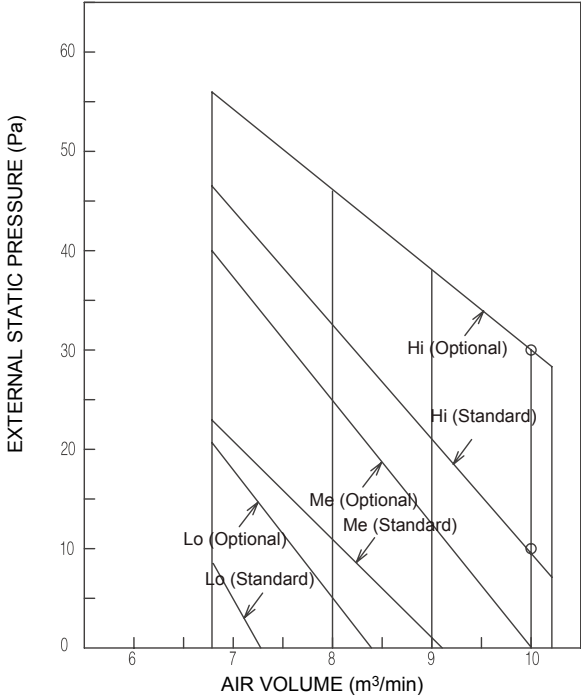
The setting of Standard,High Static Pressure 1 and High Static Pressure 2 mode can be changed by Wired Controller.

Ducted (Slim)

Models: RPIZ-0.8/1.0FSN1Q/P
RPIZ-0.8/1.0FSNQ5/P

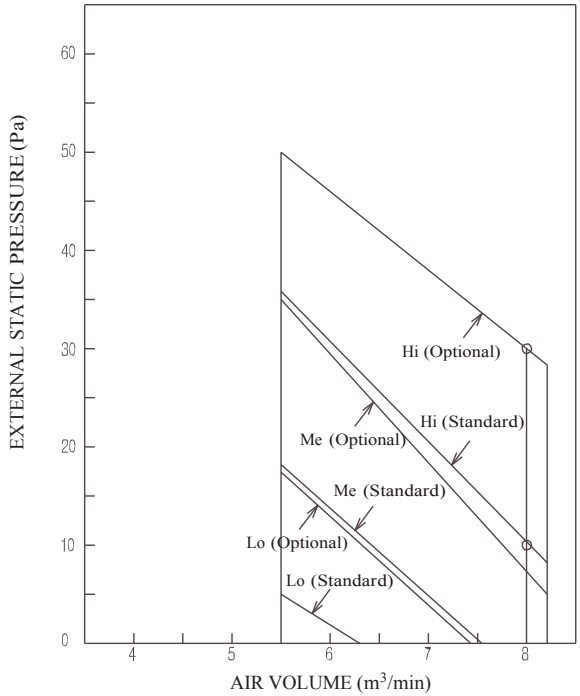


Models: RPIZ-1.3/1.5FSN1Q/P
RPIZ-1.3/1.5FSNQ5/P

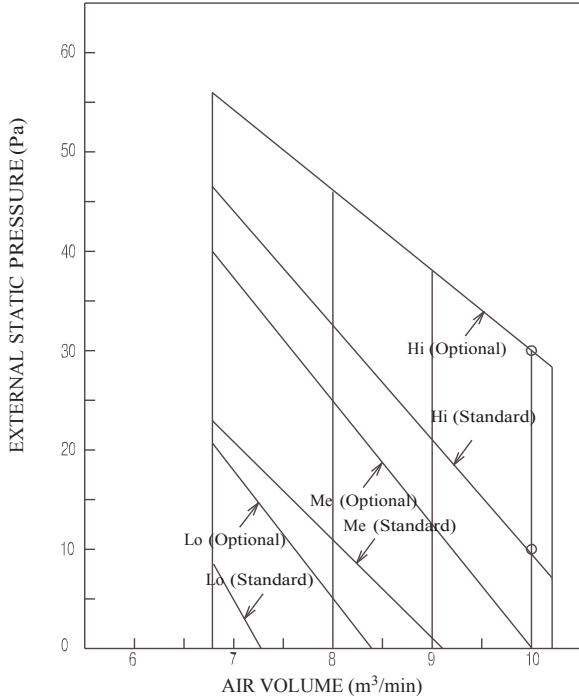


Ducted (Compact)

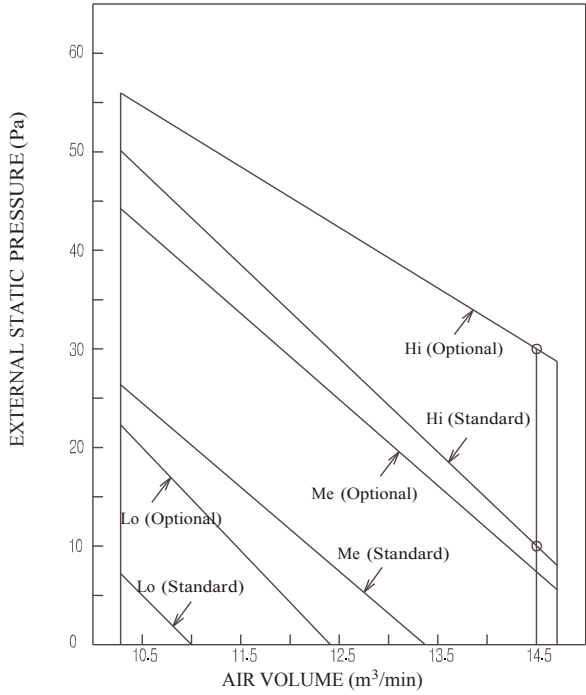
Models: RPIZ-0.8/1.0FSN1Q
RPIZ-0.8/1.0FSNQ5



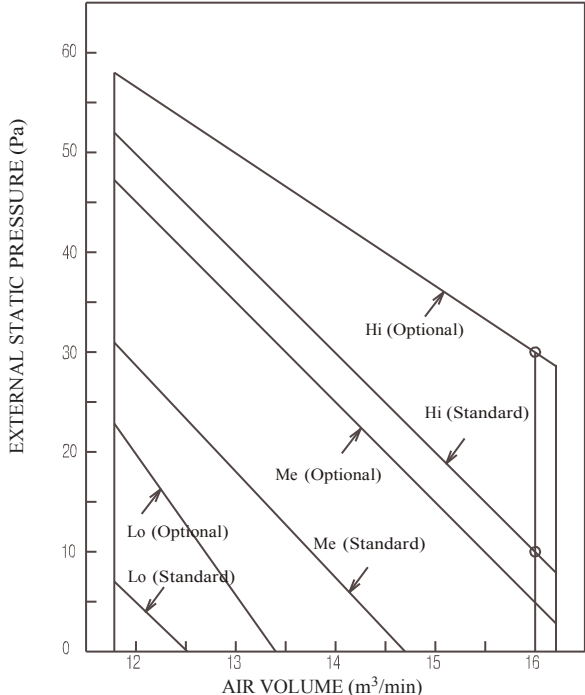
Models: RPIZ-1.3/1.5FSN1Q
RPIZ-1.3/1.5FSNQ5



Models: RPIZ-1.8/2.0FSN1Q

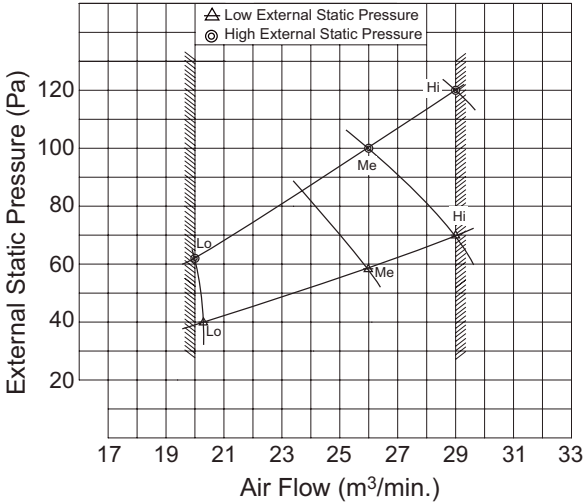


Models: RPIZ-2.3/2.5FSN1Q

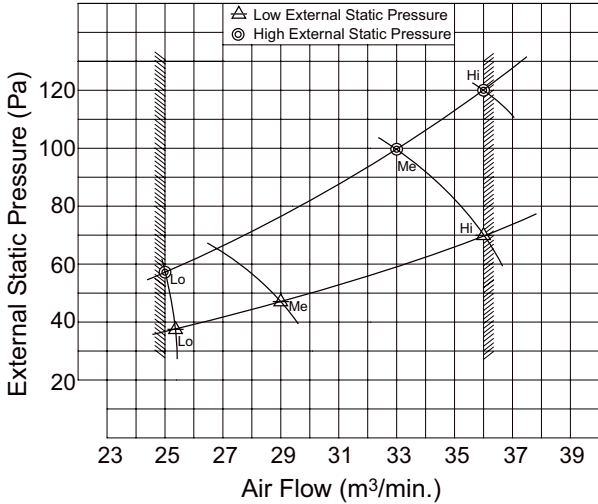


Ducted (Larger Air Volume)

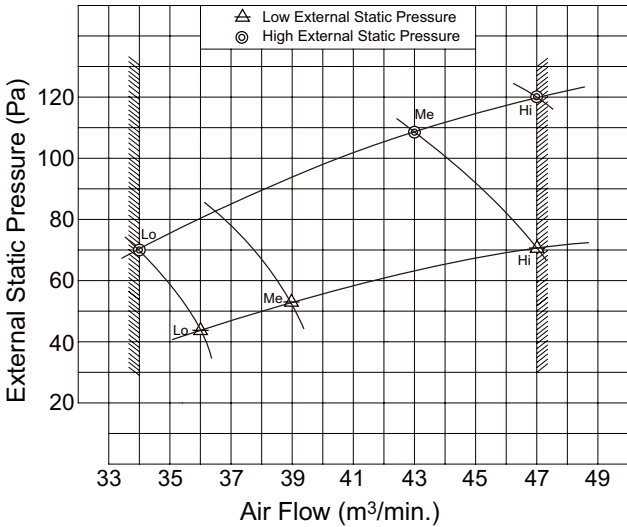
RPI-3.0FSN2SQ



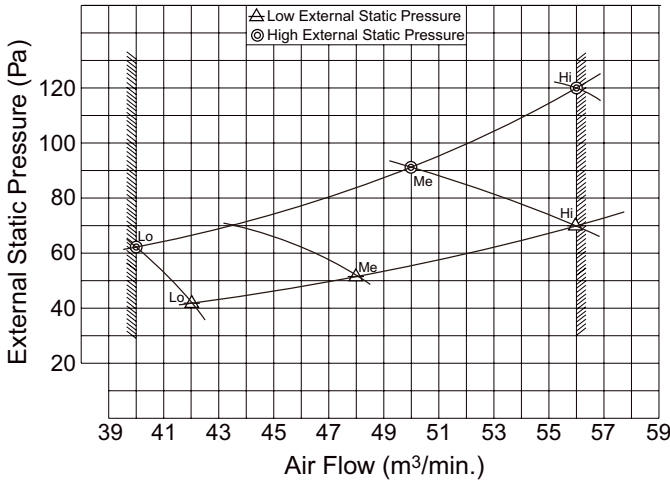
RPI-4.0FSN2SQ



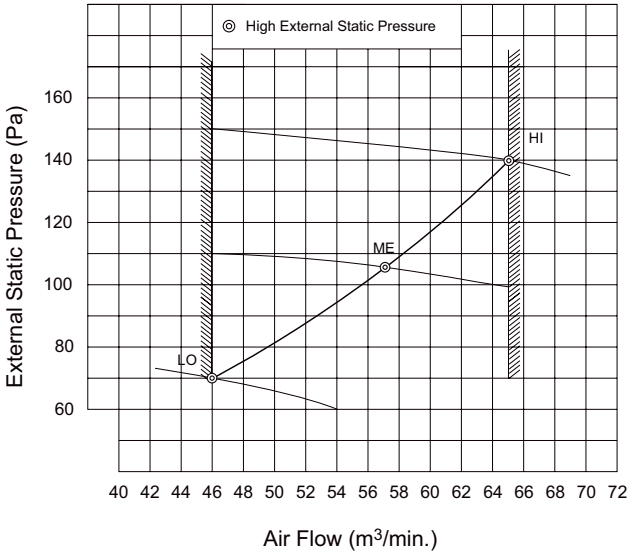
RPI-5.0FSN2SQ



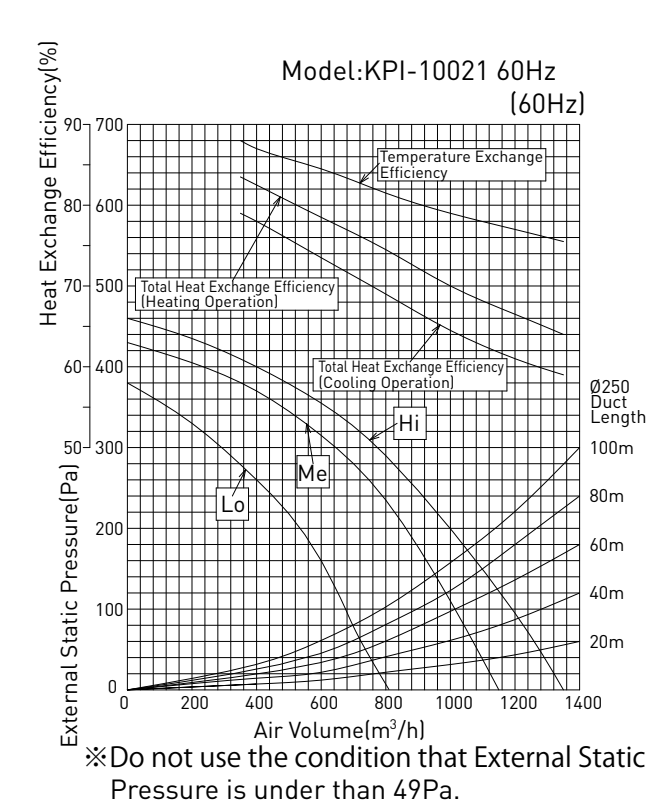
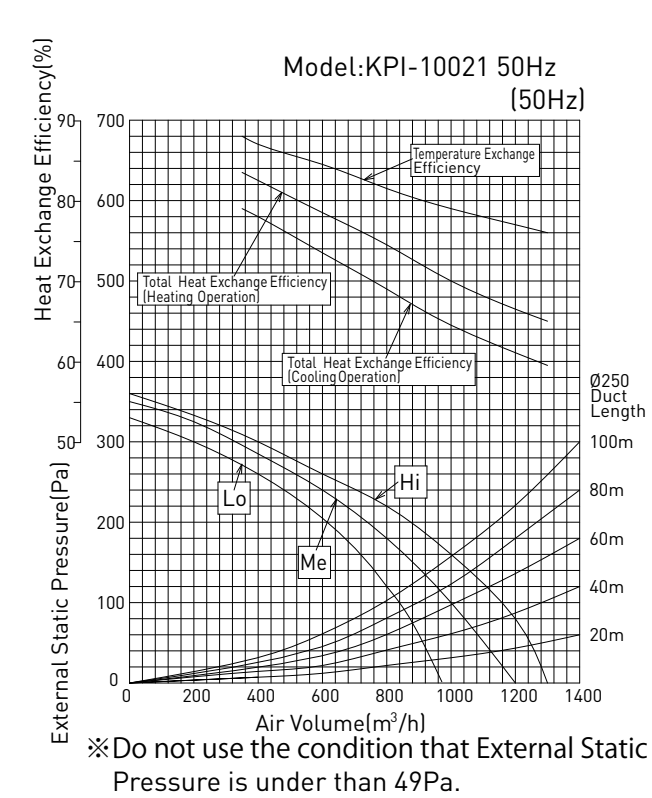
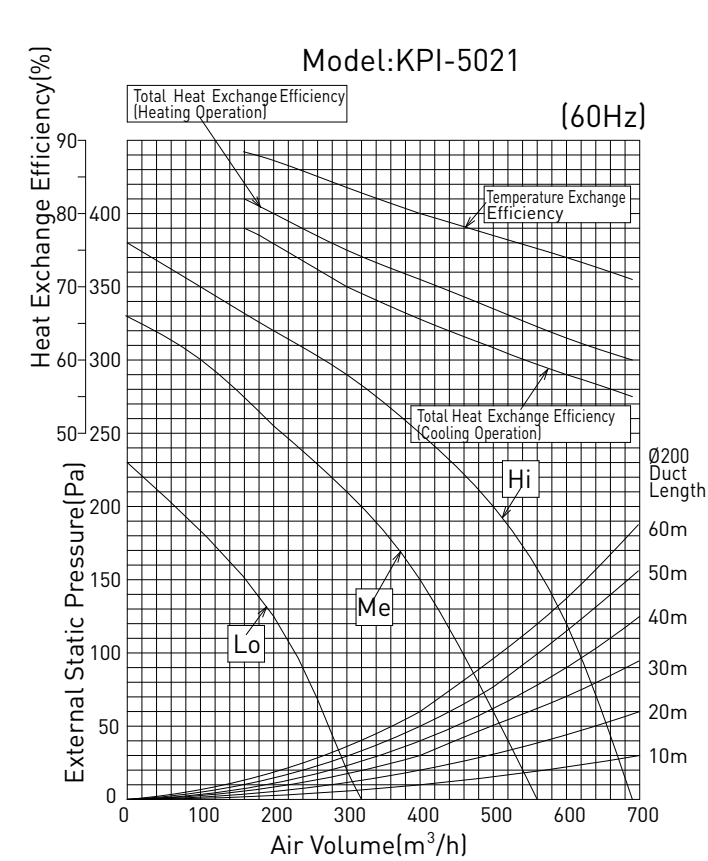
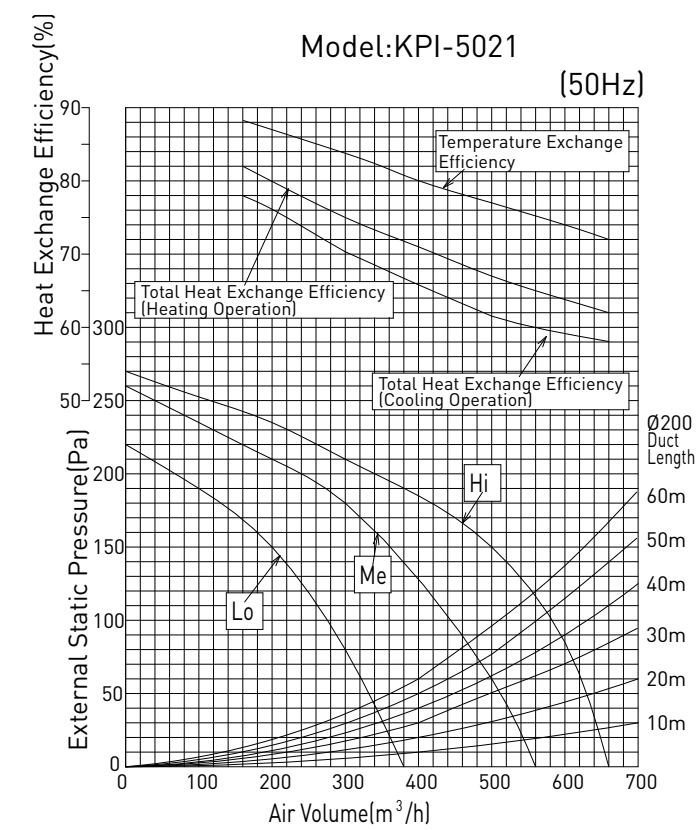
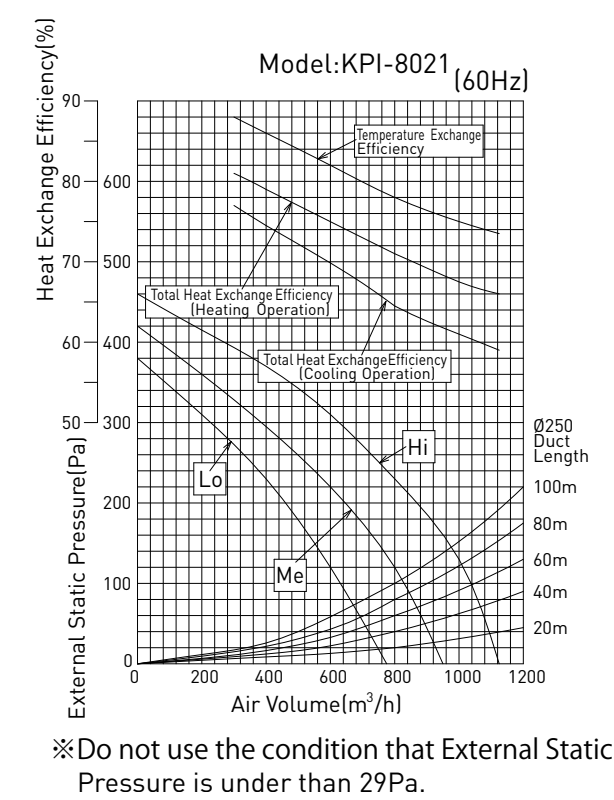
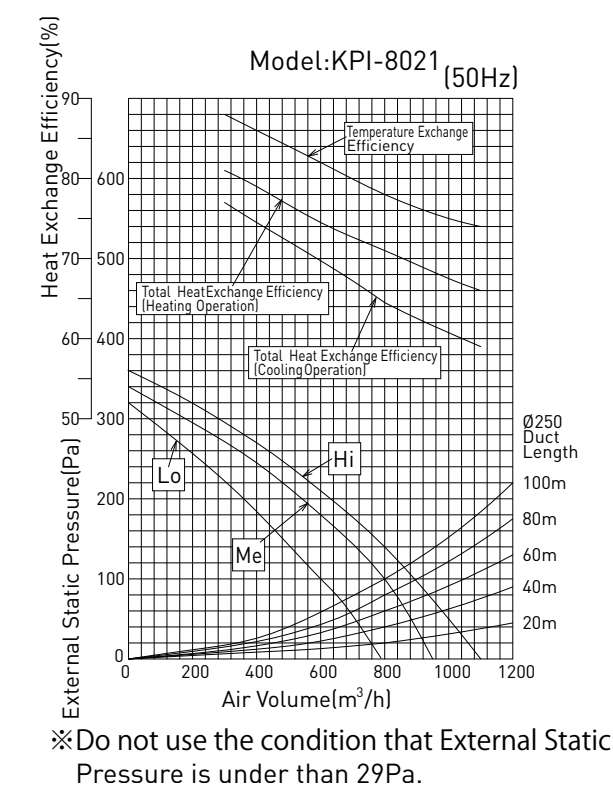
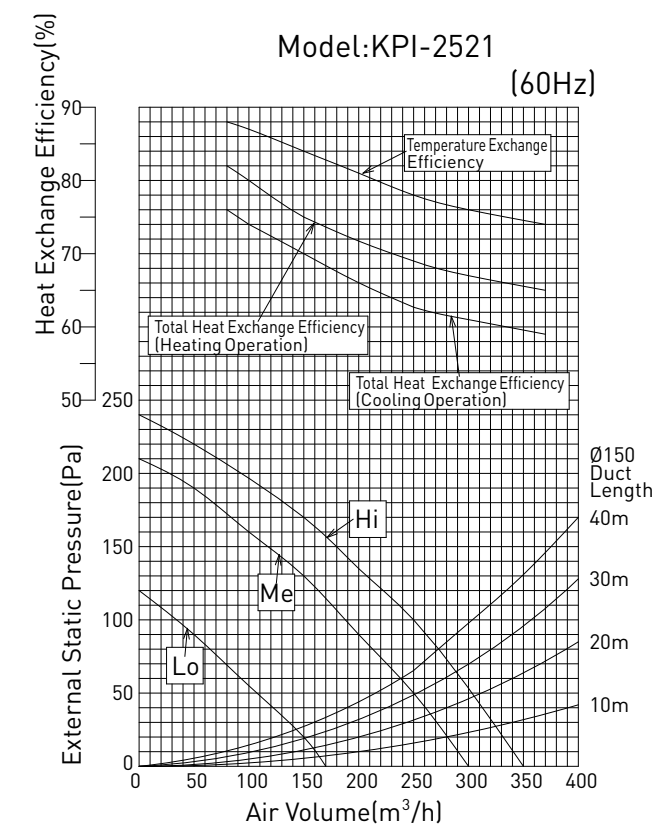
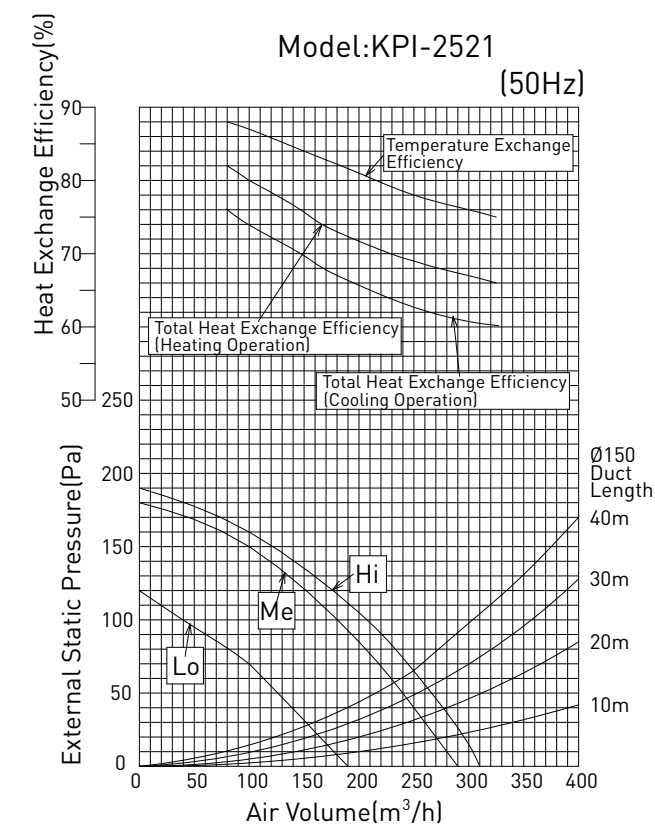
RPI-6.0FSN2SQ



RPI-7.0FSN2SQ

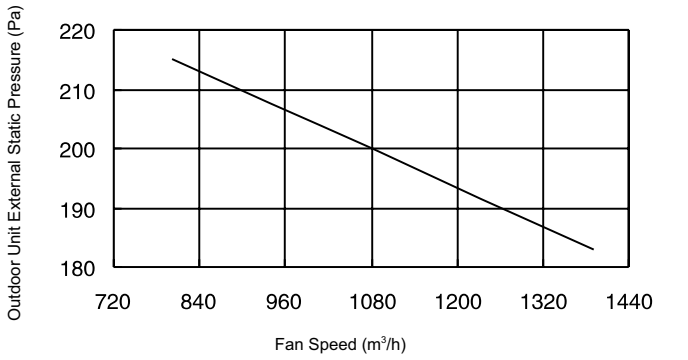


Total Heat Exchanger

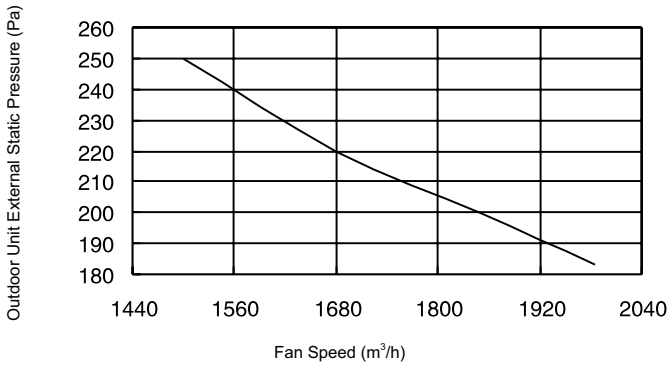


Fresh Air Unit

RPI-5.0KFNQ Fan Motor Characteristic Curve

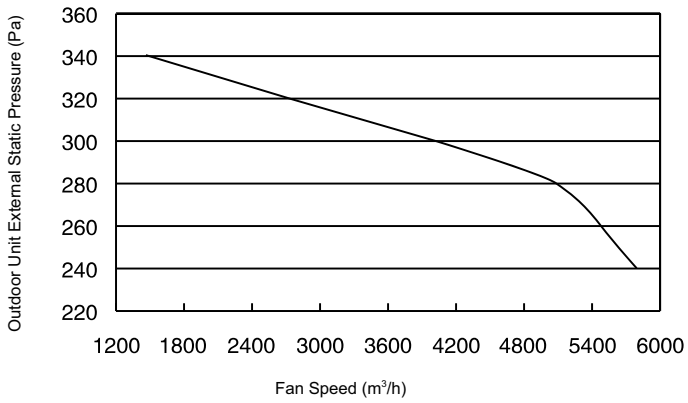


RPI-8.0KFNQ Fan Motor Characteristic Curve

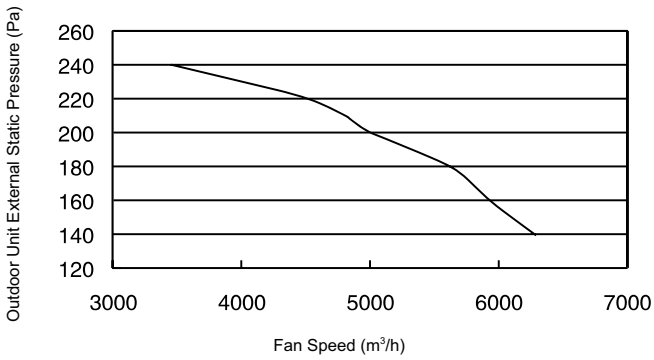


Fresh Air Unit

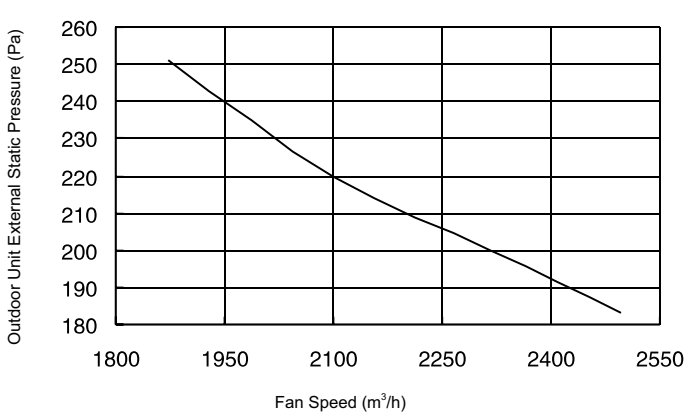
RPI-16.0KFNQ Fan Motor Characteristic Curve



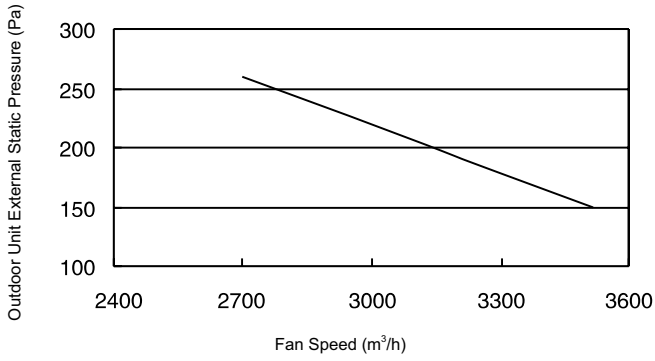
RPI-20.0KFNQ Fan Motor Characteristic Curve



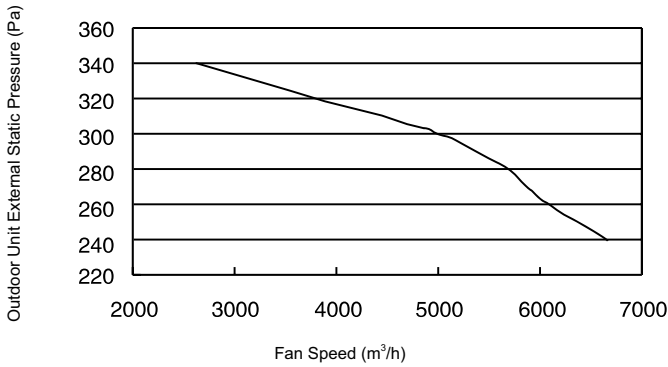
RPI-10.0KFNQ Fan Motor Characteristic Curve



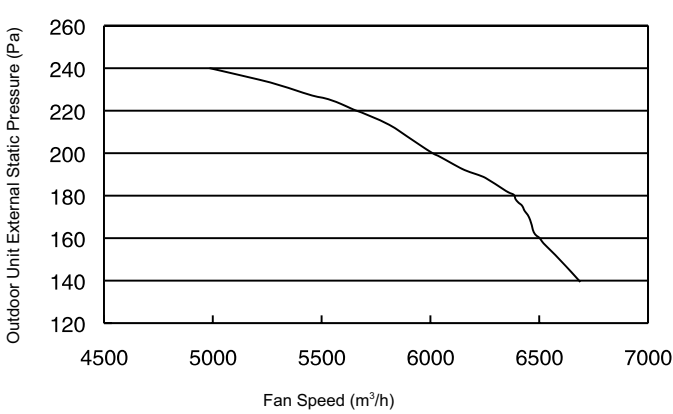
RPI-12.0KFNQ Fan Motor Characteristic Curve



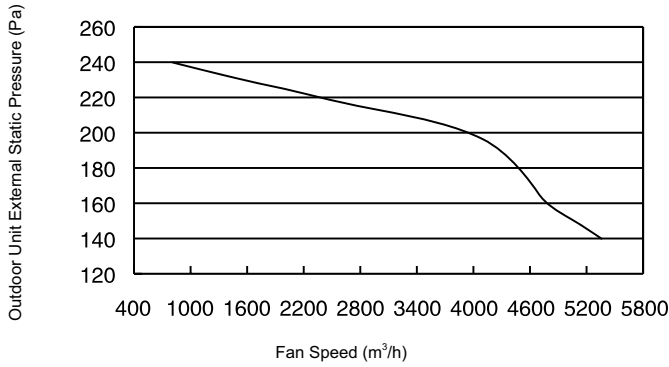
RPI-20.0KFNQ Fan Motor Characteristic Curve



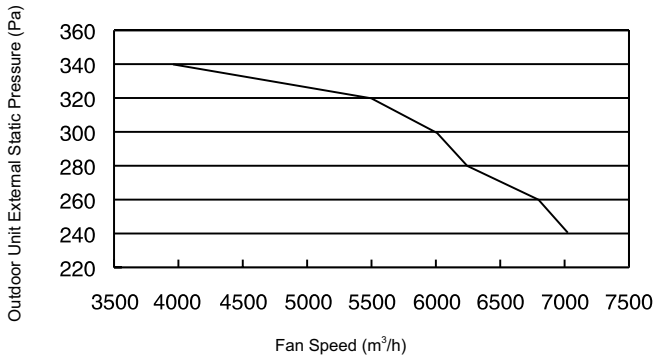
RPI-20.0KFNQ Fan Motor Characteristic Curve



RPI-16.0KFNQ Fan Motor Characteristic Curve



RPI-20.0KFNQ Fan Motor Characteristic Curve



CONTROLLERS

Controllers Index

141 INDIVIDUAL CONTROL SYSTEMS

143	New PC-ARF1 ADVANCED WIRED REMOTE CONTROLLER Recommended: Office / Supermarket / Cultural Heritage / Clinic		 Office
147	PC-AR WIRED REMOTE CONTROLLER Recommended: Office / Supermarket / Cultural Heritage / Clinic		 Office
148	PC-AWR WIRELESS REMOTE CONTROLLER Recommended: Residence / Hotel Room / Hospital Room / Classroom		 Residence
148	New PC-ARH1 SIMPLIFIED WIRED REMOTE CONTROLLER Recommended: Hotel Room / Hospital Room / Classroom		 Hotel Room

149 CENTRALIZED CONTROL SYSTEMS

151	H-Link		
153	Central Station mini PSC-A32MN FOR THE SMALL-SCALE BUILDINGS Recommended: Office / Shops / Cultural Heritage / Small Building / Hospital / School		32  Office
155	Central Station EZ PSC-A64GT FOR THE MIDDLE-SCALE BUILDINGS Recommended: Office / Small Building / Hospital / Nursing Home / Educational Facility / Hotel		64  Hospital
157	Central Station NT PSC-A128WEB3 WEB OPERATION Recommended: Medium Large Building / Educational Facility / General Hospital / Industrial Facility / Large Nursing Home		128  Educational Facility
159	Central Station DX PSC-A128WX2 Management Software: PSC-AS2048WXB2 FOR THE LARGE-SCALE BUILDINGS Recommended: Big Tenant Building / Large Educational Facility / General Hospital / Industrial Facility		2048  Big Tenant Building

161 PSC-A64S / PSC-A16RS

163 Others

INDIVIDUAL
CONTROL
SYSTEMS



*1 Availability depends on the indoor unit type.
*2 Need to be installed in all IDUs with transition wire.
*3 The temperature of the thermistor for the indoor unit or remote control switch is indicated.
*4 Contact your dealer in case temperature unit needs to be changed from °C to °F.
*5 Available if using together with the 7-day timer[PSC-A1T].

LINE-UP / FUNCTION COMPARISON

Model Name Page		PC-ARF1 page 143-146	PC-AR page 147	PC-AWR page 148	PC-ARH1 page 148
Type					
		Wired	Wired	Wireless	Wired
Capacity	RCS Groups	1	1	-	1
	IDUs	16 [*2]	16	-	16
Setting	Run / Stop	●	●	●	●
	Operation Mode	●	●	●	●
	Auto Mode Setting	●	●	●	●
	Temperature Setting	●	●	●	●
	Temperature Setting Rate [*1]	°C(0.5/1)_°F(1)	°C(1)	°C(1) °F(1)	°C (0.5/1)_°F(1)[*4]
	Fan Speed [*1]	3/4 taps	3 taps	3/4 taps	3/4 taps
	Louver Direction	●	●	●	●
	Individual Louver Setting [*1]	●	-	-	-
	Remote Control Primary-Secondary Setting	●	●	-	●
	In Use of Total-Heat-Exchanger	Ventilation	●	-	-
		Total Heat Exchanger Setting	●	-	-
	Function Selection	Automatic Restart with Eco-operation	●	-	-
		Automatic Reset Temperature (Cooling / Heating)	●	-	●
		Temperature Indication [*3]	●	-	-
Service & Installation	Filter Sign	●	●	-	-
	Filter Sign Reset [*1]	●	●	●	-
	Louver Open / Close	●	●	-	-
	Room Name Setting	●	-	-	-
	Alarm Sign	●	●	-	●
	Identifying indoor units side-by-side	-	-	●	-
	Screen	Screen Adjustment	●	-	-
		Language	●	-	-
		Temperature Unit - °C / °F	●	-	-
		Adjusting Brightness of Run Indicator	●	-	-
	Check Menu	Sensor Condition Check	●	●	-
		Sensor Data Check	●	●	●
		Model Display	●	-	-
		Indoor / Outdoor PCB Check	●	-	-
		Alarm History Display	●	-	-
	Test Run	Test Run	●	●	-
		Function Selection (Optional Function Setting)	●	●	-
		Thermistor Selection	●	●	-
		Input / Output Setting	●	●	-
		Indoor Unit Address Change	●	●	-
		Indoor Unit Address Checking Operation	●	●	-
		Indoor Unit Address Initialization	●	●	-
		Input / Output Setting Initialization	●	●	-
		Compressor Pre-Heat Control Cancellation	●	●	-
		Contact Information Registration	●	-	-
Management	Operation Lock / Set	●	●	-	-
	Lower Limit for Cooling Operation	●	●	-	●
	Upper Limit for Heating Operation	●	●	-	●
	Built-in Timer (On / Off)	●	●	●	-
	Adjusting Date / Time Setting	●	-	-	-
	Schedule	Weekly Schedule	●	● [*5]	-
		Settable Timer Operation Times (Per Day)	5 times	-	-
		Holiday Setting	●	-	-
		Schedule On / Off	●	-	-

New
PC-ARF1

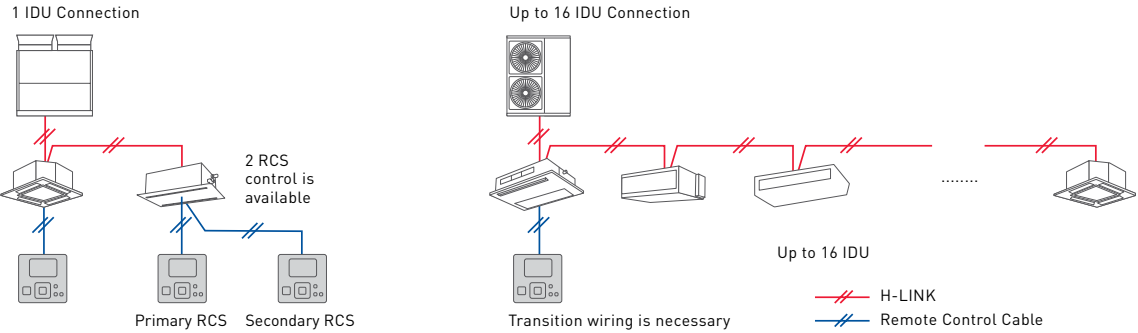
ADVANCED WIRED REMOTE CONTROLLER

Specifications

Outer Dimensions (H*W*D)
(mm) 120.0 * 120.0 * 17.9
(inch) 4.72 * 4.72 * 0.70

Net Weight
200 g
1/2 lbs

Example of System Configuration



Setting	Run/Stop
	Operation Mode
	Auto Mode Setting
	Temperature Setting
	Temperature Setting Rate _°C (0.5/1_°F(1) New
	Fan Speed _ 3/4 Taps
	Louver Direction
	Individual Louver Setting
	Remote Control Primary-Secondary Setting
	In Use of Total-Heat-Exchanger
Service	Function Selection
	Filter Sign
	Filter Sign Reset
	Louver Open / Close
	Room Name Setting
	Alarm Sign
	Test Run
	Screen Adjustment
	Language
	Temperature Unit - °C /°F

Screen	Screen Adjustment
	Language
	Temperature Unit - °C /°F
	Adjusting Brightness of Run Indicator
	Sensor Condition Check
	Sensor Data Check
	Model Display
	Indoor / Outdoor PCB Check
	Self Checking
	Alarm History Display
Check Menu	Test Run
	Function Selection (Optional Function Setting)
	Thermistor Selection
	Input/Output Setting
	Indoor Unit Address Change
	Indoor Unit Address Checking Operation
	Indoor Unit Address Initialization
	Input-Output Setting Initialization
	Compressor Pre-Heat Control Cancellation
	Contact Information Registration

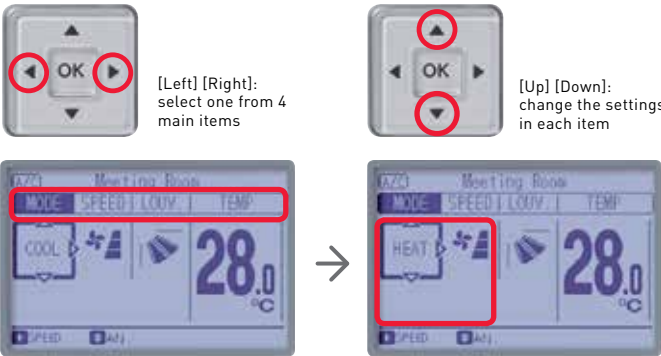
Management	Operation Lock / Set
	Main / Sub Control New
	Built-in-Timer (on/off)
	Adjusting Date / Time Setting
	Thermometer Indication New
	With Motion Sensor Kit
	ODU Capacity Control
	• Peak Shaving Control New
	• Proper Limit Control
	Indoor Unit Rotation Control New
Power-Saving	Automatic Fan Operation New
	Auto Recovery of Temperature
	Upper Limit for Heating Operation
	Lower Limit for Cooling Operation
	Power Consumption Visualization New
	Weekly Schedule
	Settable Timer Operation Times (per day): 5
	Holiday Setting
	Schedule On / Off
	ODU Noise Reduction Schedule New



SIMPLE OPERATION

Directional Key

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



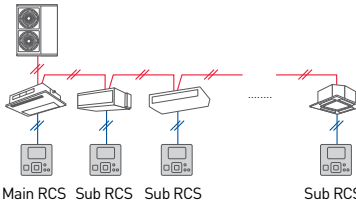
ADAPTABILITY

Improved main-sub RCS control

By one main RCS, You can control the multiple IDUs which are controlled by sub RCS.

* Operation Mode

* Setting Temperature



Alarm code check

Contact address shown in the same display.



ODU silent mode

Set in the weekly schedule by 5 times.



Power-saving button

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



Menu button

Display all setting except 4 main items, like schedule.



Temperature Setting Rate

Setting available in 0.5 / 1.0 °C or 1.0 °F.



Thermometer function

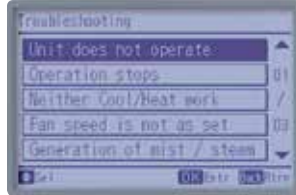
Current temperature can be displayed anytime, without being in maintenance mode.

*Thermometer can be chosen out of 4 sensors (Air inlet, Air outlet, Remote controller and Remote Sensor (THM-R2A))



Help Menu

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



New

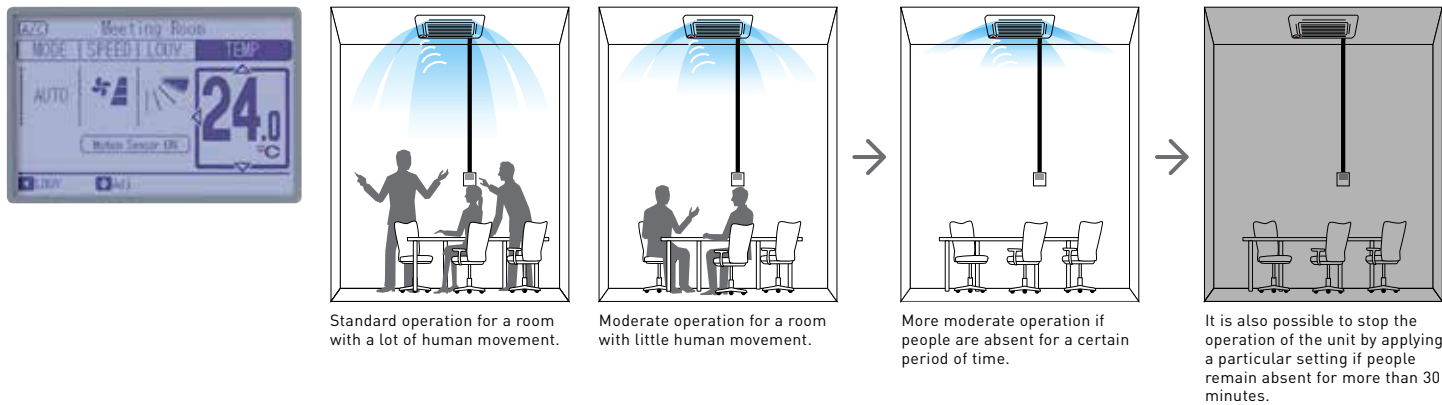
PC-ARF1

ADVANCED WIRED REMOTE CONTROLLER

POWER-SAVING FUNCTION

With Motion Sensor

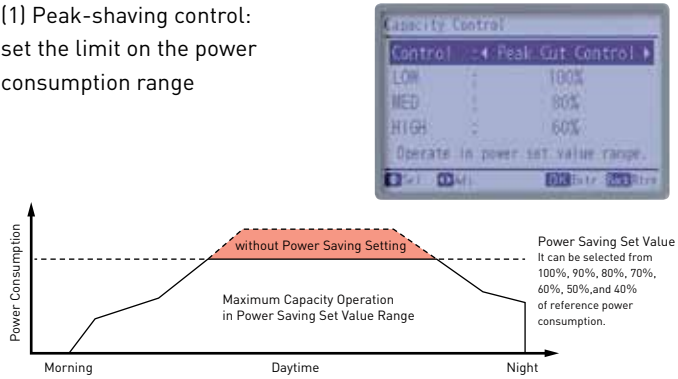
Perceives the amount of human activity and undertakes automatic saving.



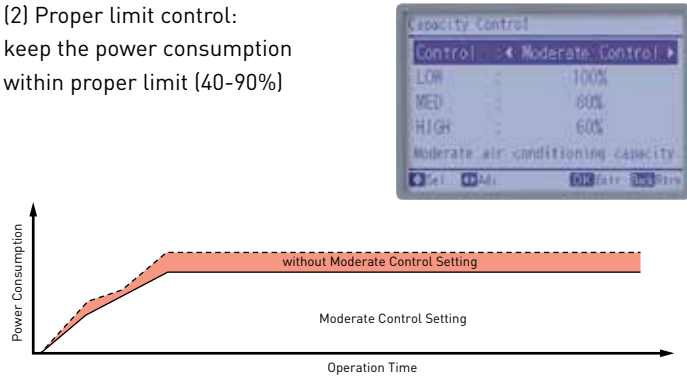
New

Outdoor unit capacity control ⇄ two options

(1) Peak-shaving control: set the limit on the power consumption range



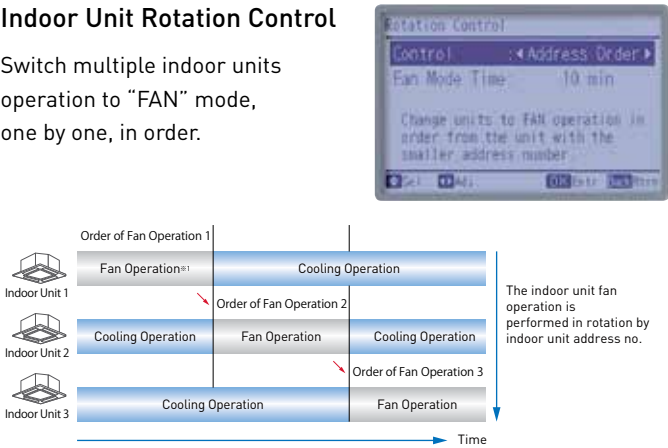
(2) Proper limit control: keep the power consumption within proper limit (40-90%)



New

Indoor Unit Rotation Control

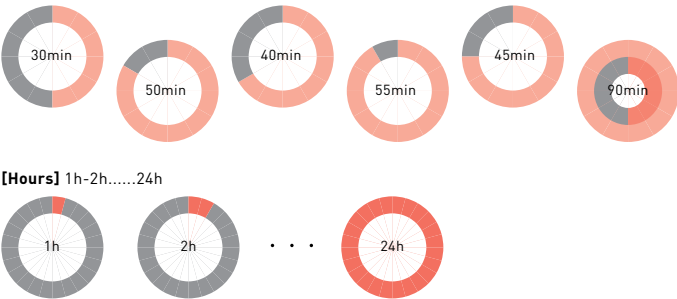
Switch multiple indoor units operation to "FAN" mode, one by one, in order.



Built-in Timer

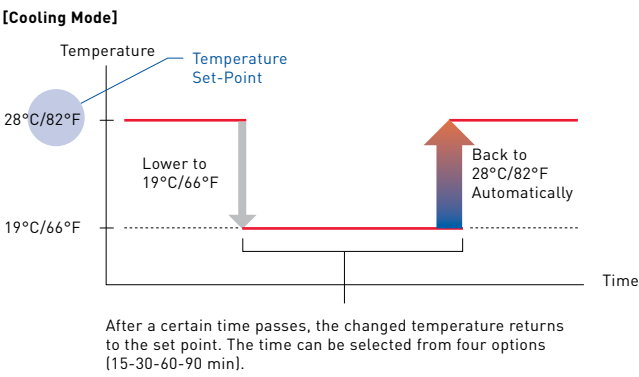
At a predetermined time, the indoor unit can be turned off thanks to the built-in timer. The time can be chosen from those below.

[Minutes] 30-40-45-50-55-90 min (e.g. useful for classrooms)



Auto-Recovery of Temperature

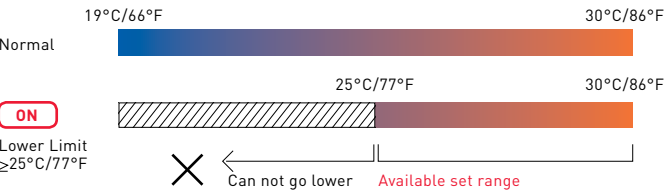
Reducing excessive energy consumption thanks to automatic temperature reset.



Temperature Range Setting

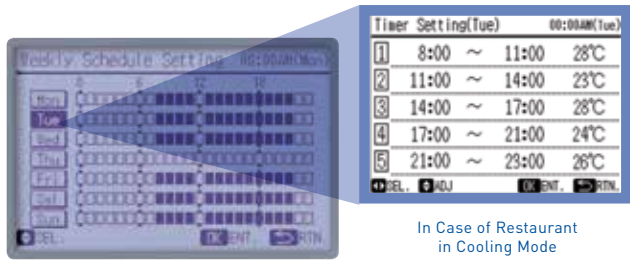
Prevent wasteful power consumption due to excessive use of cooling/heating mode.

[Cooling Mode]



Weekly Schedule

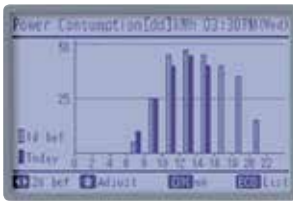
Seven-day timer with multiple set-points (up to 5 actions per day): No need to worry about controlling the air conditioner each time, each day.



New

Power consumption visualization

Check power consumption in the unit of day, week, and year.



PC-AR

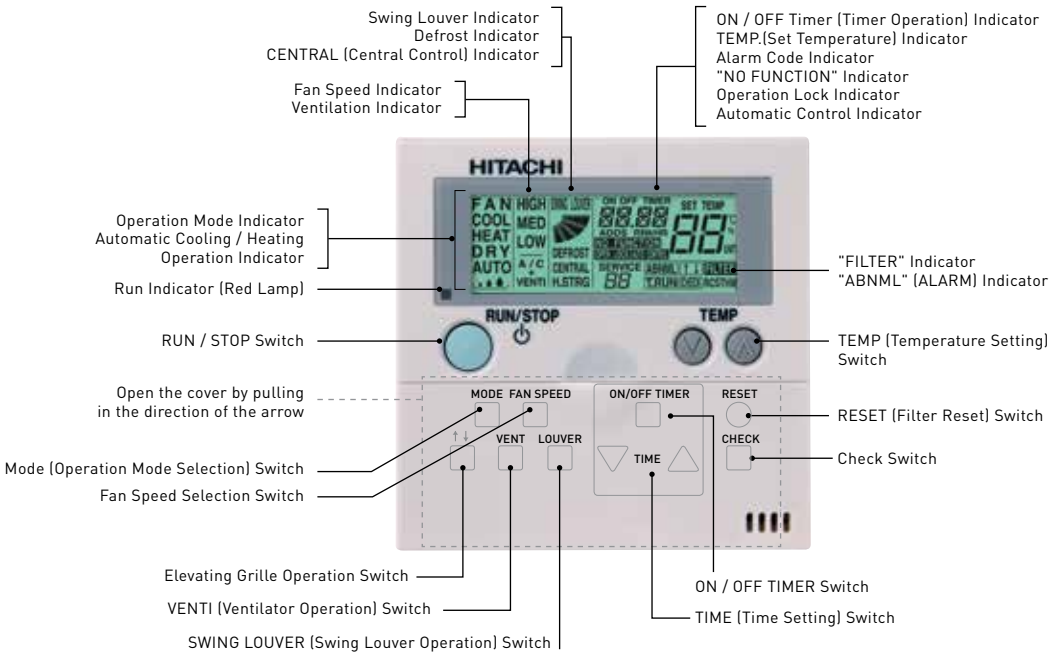
WIRED REMOTE CONTROLLER



Specifications

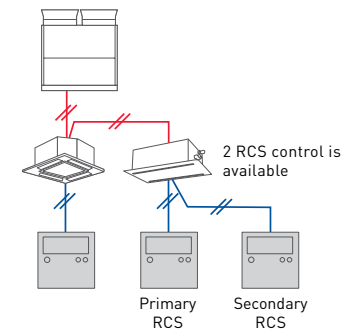
Outer Dimensions (H*W*D)
(mm) 120.0 * 120.0 * 17.0
(inch) 4.72 * 4.72 * 0.67

Net Weight
150 g
1/3 lbs

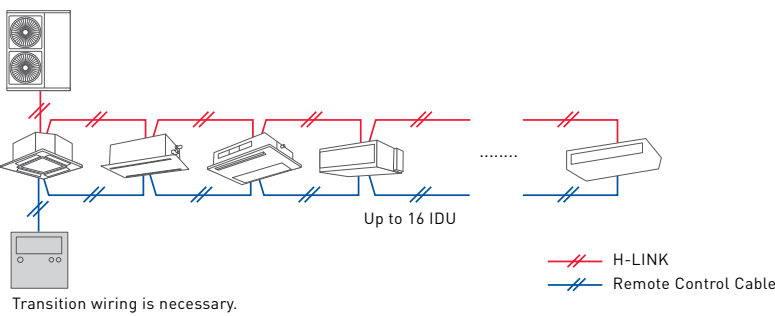


Example of System Configuration

1 IDU Connection



Up to 16 IDU Connections



Setting	Run / Stop
	Operation Mode
	Auto Mode Setting
	Temperature Setting
	Temperature Setting Rate _ 1°C
	Fan Speed _ 3 Taps
	Louver Direction
	Remote Control Primary-Secondary Setting
Service	Automatic Reset Temperature (Cooling / Heating)
	Filter Sign
	Filter Sign Reset
	Elevating Grille
	Louver Open / Close
	Alarm Sign

Check Menu	Sensor Condition Check
	Sensor Data Check
Test Run	Test Run
	Function Selection (Optional Function Setting)
	Thermistor Selection
	Input - Output Setting
	Indoor Unit Address Change
	Indoor Unit Address Checking Operation
	Indoor Unit Address Initialization
	Input-Output Setting Initialization
	Compressor Pre-Heat Control Cancellation

Management	Operation Lock-Set
	Lower Limit for Cooling Operation
	Upper Limit for Heating Operation
	Built-in Timer (On/Off)
Schedule	Weekly Schedule (+ PSC-A1T)

PC-AWR

WIRELESS REMOTE CONTROLLER

► See "Page 167: Receiver Kit"

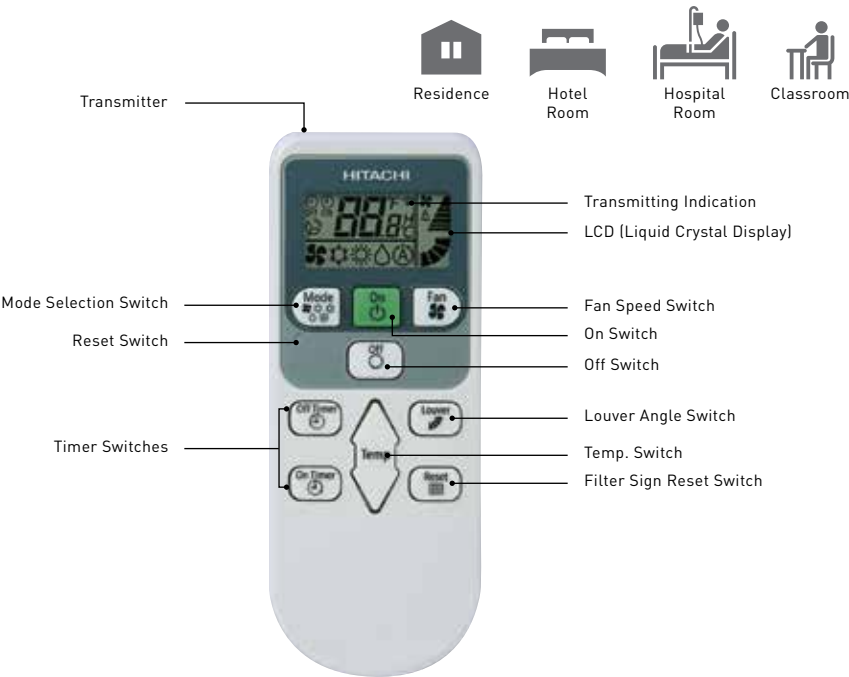
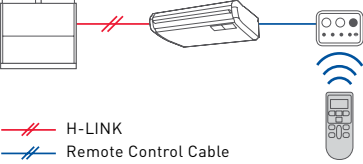
Specifications

Outer Dimensions (H*W*D)
(mm) 140.0 * 55.0 * 16.8
(inch) 5.51 * 2.17 * 0.66

Net Weight
75 g
1/6 lbs

Example of System Configuration

1 IDU connection



Setting	Run / Stop
	Operation Mode
	Auto Mode Setting
	Temperature Setting
	Temperature Setting Rate _ 1°C / 1°F
	Fan Speed _ 3 / 4 Taps
	Louver Direction

Service	Filter Sign Reset
	Identifying indoor units side-by-side
	Temperature Unit - °C / °F
Schedule	Built-in Timer (On / Off)

New

PC-ARH1

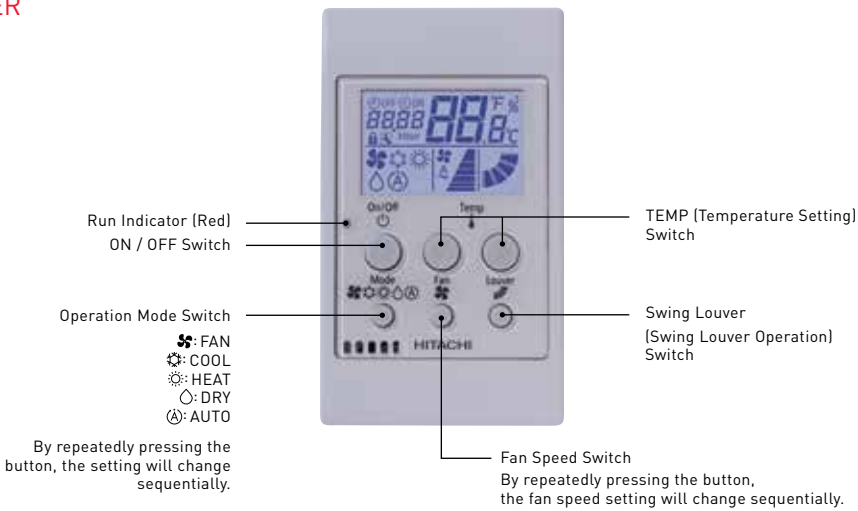
SIMPLIFIED WIRED REMOTE CONTROLLER



Specifications

Outer Dimensions (H*W*D)
(mm) 120.0 * 70.0 * 17.0
(inch) 4.72 * 2.76 * 0.67

Net Weight
90 g
1/5 lbs



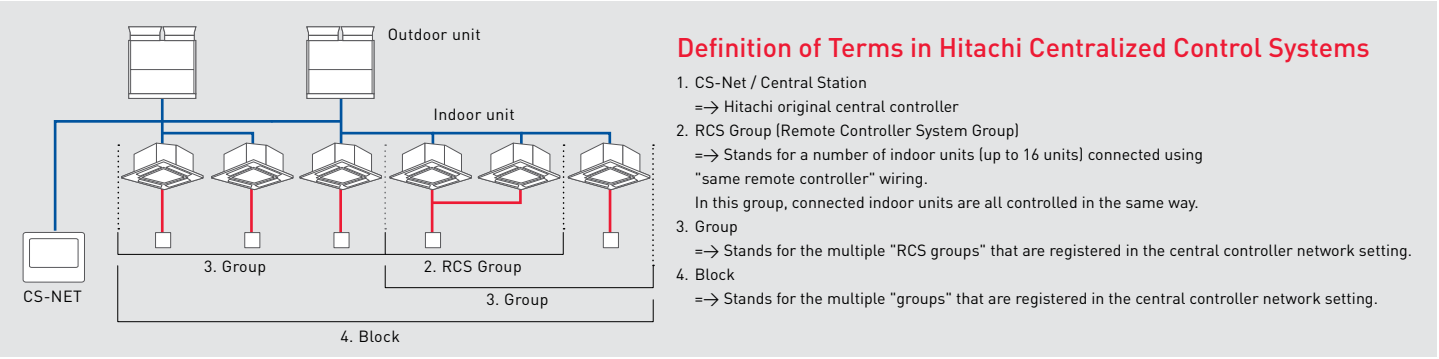
Setting	Run / Stop
	Operation Mode
	Auto Mode Setting
	Temperature Setting

Setting	Temperature setting rate_°C (0.5/1)_°F(1)
	Back-light screen
	Fan Speed_ 3/4 taps
	Louver Direction

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

CENTRALIZED CONTROL SYSTEMS

*1 One adapter can control "128 groups-64 blocks", and this one system can control up to 16 adapter.
*2 Control by RCS Group only. You cannot control each IDU in one RCS Group individually.
*3 Individual function control in each remote controller is not applicable.
*4 Applicable by schedule function or external signal input.
*5 Both "Batch Control" and "Individual Control" are applicable.
*6 Only "Individual Control" is applicable.
*7 ODU power control is not applicable. External signal output only.
*8 "Accumulated Operation Time" and "Thermo-on Time" per RCS Group can be shown in the Graph / Table.
*9 "Accumulated Operation Time" per RCS Group can be shown in the Graph/ Table.
*10 You cannot use Other CS-net when you connect to RC-less IDU.



LINE-UP / FUNCTION COMPARISON

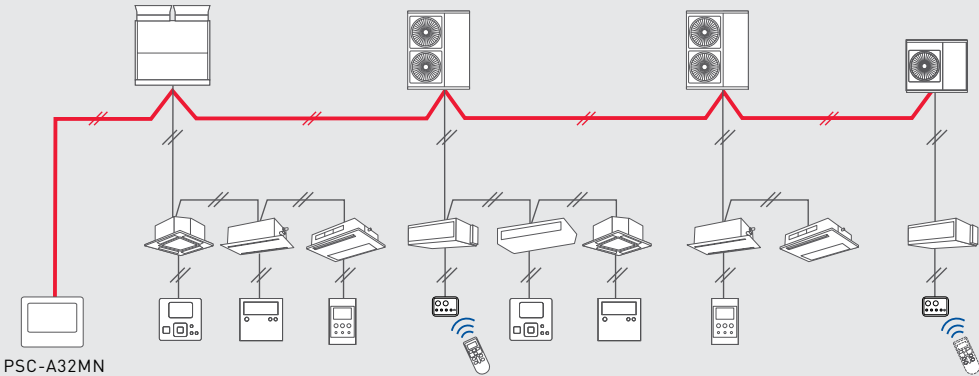
Model Name Page			mini PSC-A32MN page153-154	EZ PSC-A64GT page155-156	NT PSC-A128WEB3 page157-158	DX PSC-A128WX2 PSC-AS2048WXB2 page159-160
Function Comparison	Display		5.0-inch Wide Color LCD [Full dot]	8.5-inch Wide Color LCD [Full dot]	Locally-Supplied PC or Touch-Panel PC	Locally-Supplied PC
	Display Control		Touch Panel	Touch Panel	Locally-Supplied or Touch-Panel	Locally-Supplied
	Total Connection Capacity	RCS Group	32	64	-	2048 (*1)
		Group	4	64	128	2048 (*1)
		Block	4 patterns (2/4/8/16)	4	64	1280 (*1)
		Indoor Unit	160	160	160	2560 (*1)
Operation Unit	Building Scale		Small	Small Medium	Medium Large	Large
	All Together		●	●	●	●
	Each Block		●	●	●	●
	Each RCS Group		●	●	-	-
	Each Group		-	-	-	-
	Each Indoor Unit Group		-	-	△ (*2)	△ (*2)
	Each H-LINK		-	-	-	●
	Each Layout		-	-	-	●
Control Function	Run / Stop		●	●	●	●
	Operation Mode		●	●	●	●
	Temperature Setting		●	●	●	●
	Fan Speed Setting		●	●	●	●
	Louver Setting		●	●	●	●
	Individual Controller Lock		●	△ (*3)	●	●
	Filter Sign Reset		●	●	●	●
	Outdoor Unit Capacity Control		△ (*4)	-	△ (*4)	●
Monitor Function	Outdoor Unit Noise Control		-	-	△ (*4)	●
	Run / Stop		●	●	●	●
	Operation Mode		●	●	●	●
	Temperature Setting		●	●	●	●
	Fan Speed Control		●	●	●	●
	Louver Control		●	●	●	●
	Individual Controller Lock		●	●	●	●
	Alarm Code		●	●	●	●
Schedule Function	Filter Sign		●	●	●	●
	Inlet Temperature		●	●	●	●
	Ambient Temperature		●	●	-	●
	Accumulated Operation Time		●	●	-	●
	Weekly		●	●	●	●
	Setting Times Per Day		10	10	16	16
	Operation-Off Time Set		●	●	●	●
	Special Day Setting		-	-	●	●
Other Function	Holidays Setting		●	●	●	●
	Annual Schedule		-	-	●	●
	Schedule Per Group		●	●	●	●
	Action on External Input	Run-Stop	● (*5)	● (*5)	● (*5)	● (*5)
		Emergency Stop	●	●	●	●
		Demand Control	●	-	●	●
	Condition of Signal Output	Run	△ (*6)	△ (*6)	● (*5)	● (*5)
		Alarm	△ (*6)	△ (*6)	● (*5)	● (*5)
	External Signal Output Following Anomaly Detection in AC Unit		●	●	●	●
	Forced Shutdown / Outdoor Unit Power Control by External Signal Input		●	△	△ (*7)	●
	Management Report (Graph / Table)		△ (*8)	△ (*9)	△	●
	Connect to the RC-Less Indoor Unit		△ (*10)	△ (*10)	△ (*10)	△ (*10)
	Data Output by External Media		-	-	-	●

H-LINK

WHAT IS H-LINK?

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

Basic Wiring



ADVANTAGES

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

RECOMMENDED FACILITY (EXAMPLE)



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



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

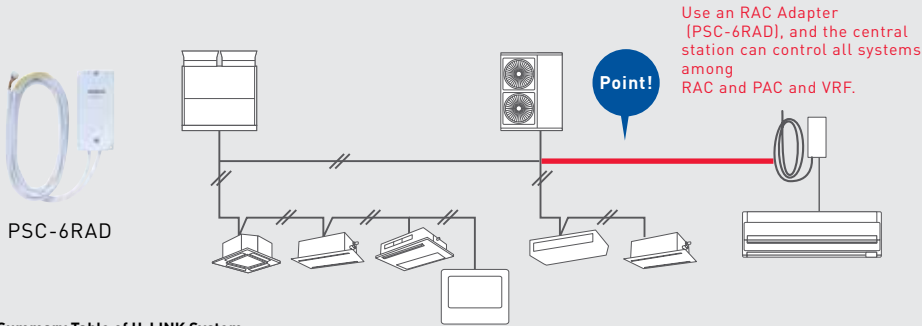


Rehabilitation facilities or hospitals where it is necessary to minimize the burden on users.

POINT 1

No Connection Boundary Among VRF/PAC/RAC

By providing a common control function and wiring method, VRF/PAC/RAC can be simultaneously controlled in the same system. Simply connect the whole system with twin core cables using a crossover connection. No adapters or other appliances are required.



Summary Table of H-LINK System	
Max. Number of Refrigerant Groups / System	64
Address Setting Range of Indoor Units / Refrigerant Group	0 to 63
Max. Number of Indoor Units / System	160
Total Number of Devices in the Same H-LINK	200
Total Max. Wiring Length	Total 3,281 ft (Total 1,000 m)

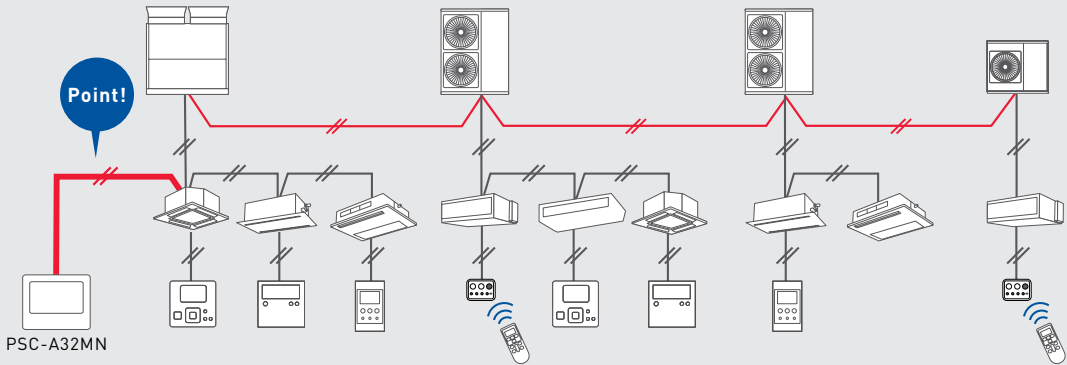
※ Using the H-LINK relay(PSC-5HR), it can extend up to 5,000 m(16,404 ft).

POINT 2

Flexible Wiring Routes

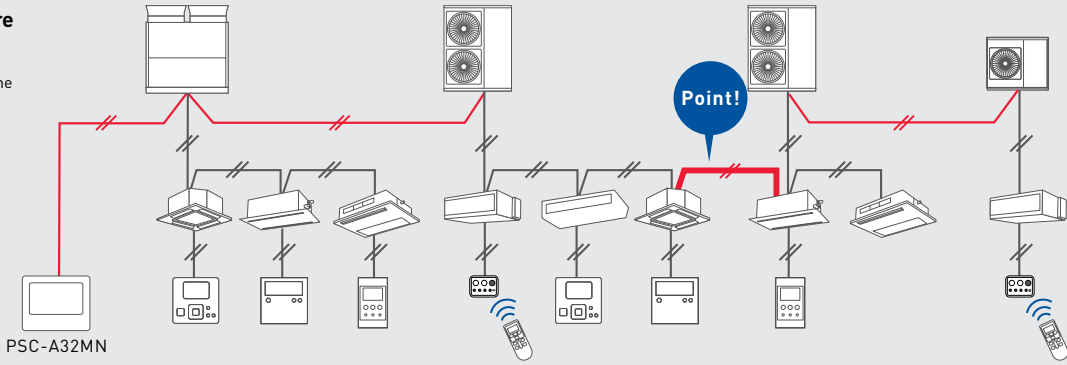
(1) If indoor units are located in one place and the indoor unit to be controlled is in the room where "concentrated control" is installed

- Overall control is possible by connecting "concentrated control" to the indoor unit.
- Delivery distance can be greatly reduced.



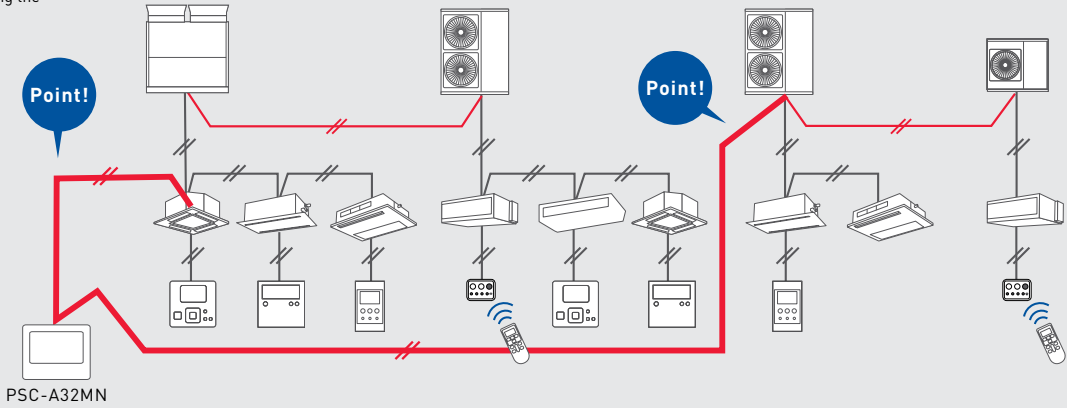
(2) If indoor units are located in two places and any indoor units of each system are located close together

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



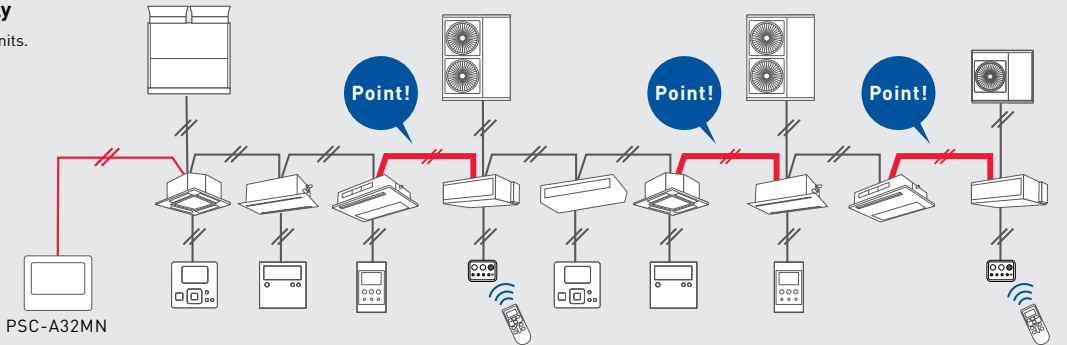
(3) If two systems are completely separated

- Overall control is possible by separately connecting the two systems to "concentrated control."
- 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.



CENTRAL STATION

mini

PSC-A32MN
FOR SMALL-SCALE BUILDINGS

Specifications

Outer Dimensions (H*W*D)

(mm) 120.0 * 140.0 * 74.7
(inch) 4.72 * 5.51 * 2.94

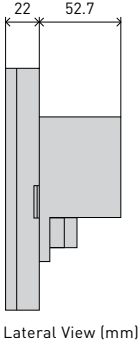
Net Weight

0.5 kg
1.1 lbs

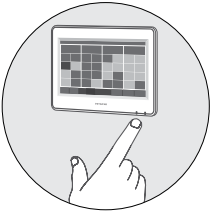
Built-in part

52.70 mm / 2.07 inch

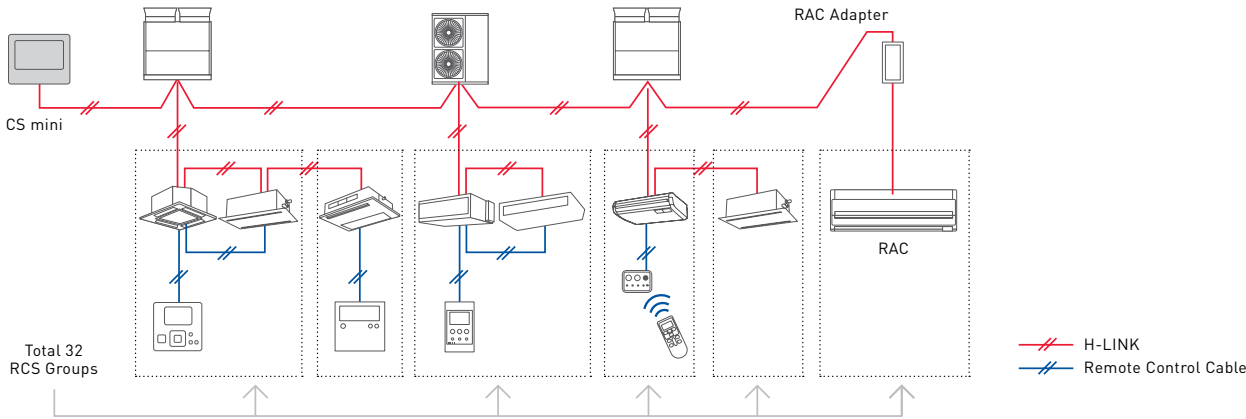
Display	5.0-inch Wide Color LCD (Full dot)	
Display Control	Touch Panel	
Total Connection Capacity	RCS Group	32
	Group	32
	Block	4 patterns (2/4/8/16)
	Indoor Unit	160
	Outdoor Unit	64
Building Scale		Small



Lateral View (mm)



Example of System Configuration



Recommended Facilities



(5-inch) Touch Panel Operation

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



[Monitor (Block)]

RCS Group Function Control

-each operational item blocking-prevent incorrect operation



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

Energy Saving

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



[Capacity Control of ODU]

Schedule

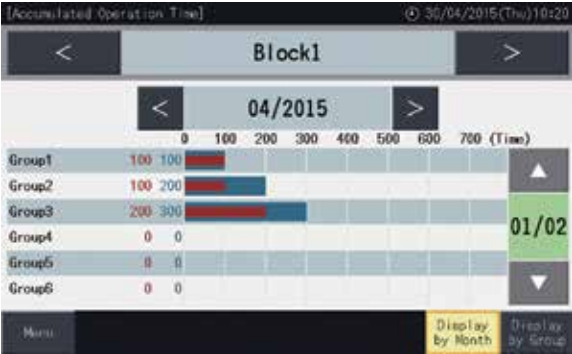
Up to 10 actions/day per RCS group can be set as available as auto switch-off timer



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

Accumulated Operation-Time Visualization

Support energy-saving management



[Temperature Limitation for Each Remote Controller]

CENTRAL STATION

EZ

PSC-A64GT
FOR MEDIUM-SCALE BUILDINGS

Specifications

Outer Dimensions (H*W*D)

(mm) 170.0 * 250.0 * 80.0
(inch) 6.69 * 9.84 * 3.15

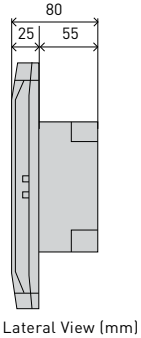
Net Weight

1.5 kg
3.3 lbs

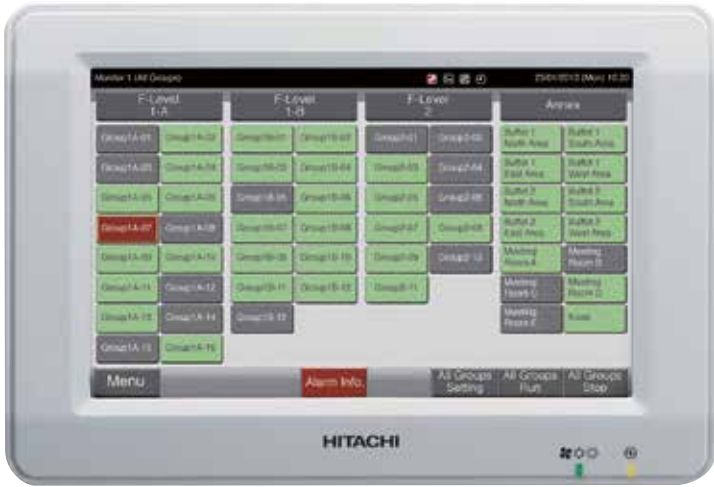
Built-in part

55.00 mm / 2.17 inch

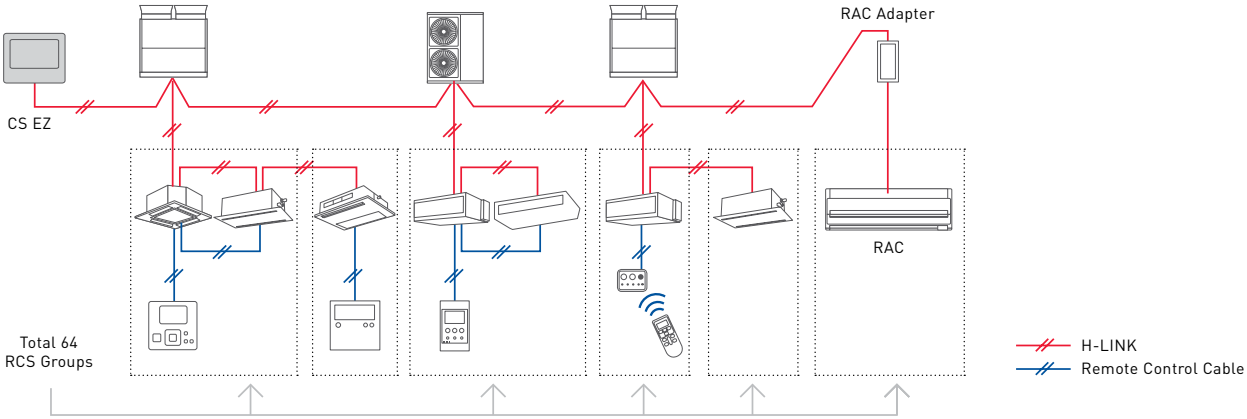
Display	8.5-inch Wide Color LCD (Full dot)	
Display Control	Touch Panel	
Total Connection Capacity	RCS Group	64
	Group	64
	Block	4
	Indoor Unit	160
Building Scale	Outdoor Unit	64
	Small Medium	



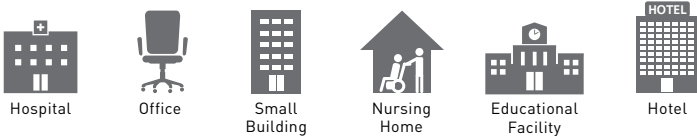
Lateral View (mm)



Example of System Configuration



Recommended Facilities



(8.5-inch) Touch Panel Operation

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



[Monitor 1 (all groups)]



[Monitor 2 (block)]

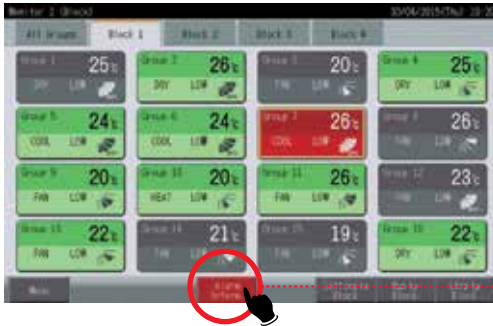
Accumulated Operation-Time Visualization

Supports Energy-Saving Management



Alarm Information

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



Schedule

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



[Weekly Schedule]



[Holiday Setting]

CENTRAL STATION
NT

PSC-A128WEB3
PC AND TOUCH PANEL: WEB OPERATION

Specifications

Outer Dimensions (H*W*D)
(mm) 68.0 * 240.0 * 154.0
(inch) 2.68 * 9.45 * 6.06

Net Weight
1.4 kg
3.1 lbs

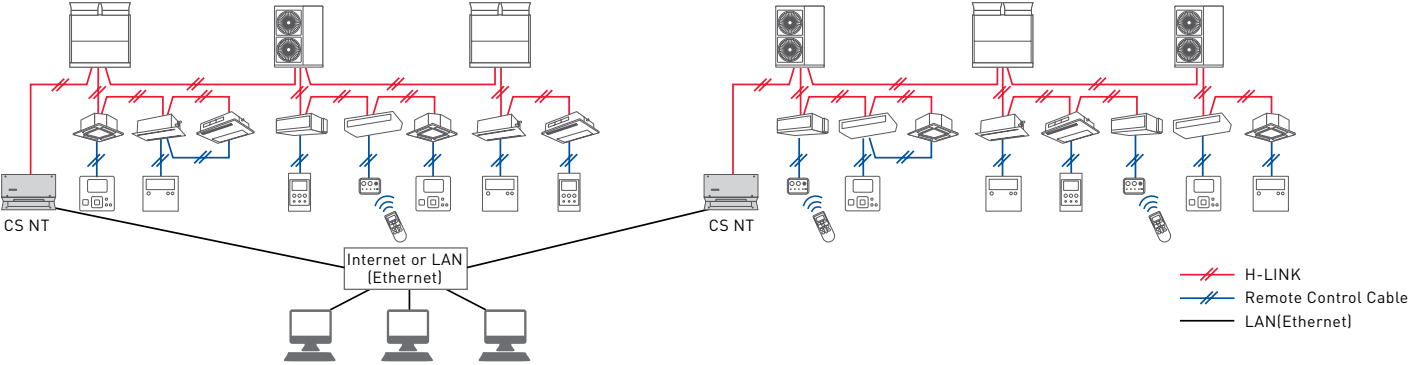
Display	Locally-Supplied PC or Touch-Panel PC	
	Locally-Supplied or Touch-Panel	
Total Connection Capacity	RCS Group	-
	Group	128
	Block	64
	Indoor Unit	160
	Outdoor Unit	64
	Building Scale	Medium Large

	One connected unit	Two or three connected units
OS	• Windows 7 Home Premium (32 bit / 64 bit) • Windows 7 Professional (32 bit / 64 bit) • Windows 7 Ultimate (32 bit / 64 bit) • Windows 8 (32 bit / 64 bit) • Windows 8 Pro (32 bit / 64 bit)	
CPU	Intel® Core™2 Duo 1.8GHz or more (When it is a specific unit, it should be Intel Atom 1.6GHz or more)	
Memory	1GB or more	2GB or more
Monitor	1024 x 768 pixels (Display around 15 inches) 1366 x 768 pixels (Wide screen display) 1280 x 1024 pixels (Display around 17 to 19 inches)	
Browser	• Internet Explorer 8 (32 bit) • Internet Explorer 9 (32 bit) • Internet Explorer 10 (32 bit) • Internet Explorer 11 (32 bit)	
HDD Available Capacity	10GB or more	
Interface	IEEE 802.3 (10BASE-T / 100BASE-TX / 1000BASE-T) or IEEE 802.11 (a/b/g/n)	
Required Software	Java™ Runtime Environment Version 6 Update 33	

Remarks
• Use a 2 buttons mouse.
• LAN with wake on LAN function or RS-232C Interface is required for UPS.
• The durable period for a management computer may differ from that of air conditioners.
• Discuss the updating procedures in advance.
• The required software is included in this product. No preparation is needed.



Example of System Configuration



Recommended Facilities

Concurrent Connection, up to PC*5units / Adapter*3units



Easy-to-use design

The newly adopted color indication or panel icon will help you recognize each unit status and manage your air conditioner more efficiently.

Operation Mode Color Setting	On (Cool)	On (Heat)	On (Dry)	On (Fan)	On (Auto)	On (in Multiple Mode)	Alarm	Off
On (With Color)	Light Blue	Orange	Sea Green	Light Grey	Light Blue Orange	Purple	Red	Grey
Off (Without Color)	Lime Green						Red	Grey

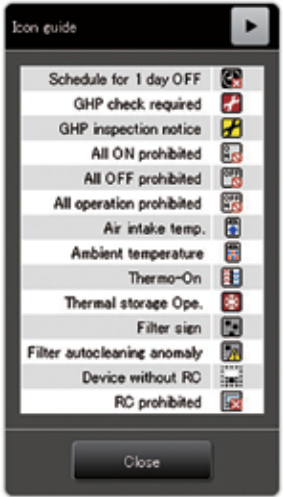
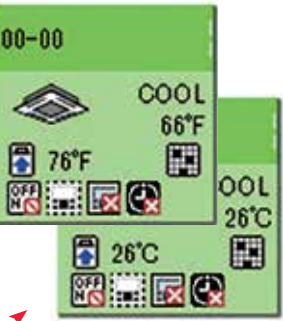


Filter

The filtering condition enables you to check the unit easily and quickly.

Icon

Touch the "Icon Guide" and you can check each icon description along with the details.



Schedule

- Weekly setting (up to 16 actions per day)
- Summer / Winter seasonal setting
- Special days setting.



[Pattern Setting]



[Weekly Setting]



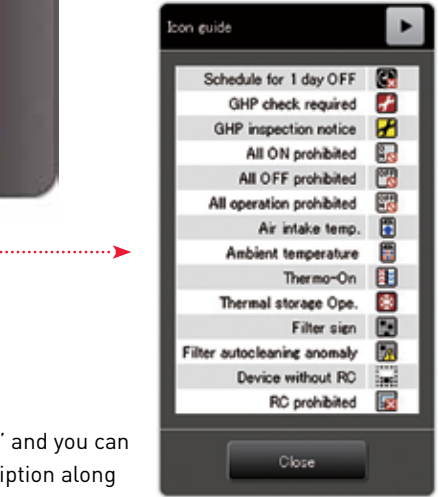
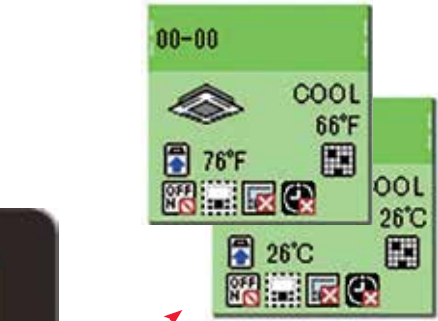
[Special Day Setting]



Summer - Winter Seasonal Setting

Panel

Icon-based monitoring panel.



Alarm History

Up to 500 alarms can be recorded. The installer can diagnose the trend of problems in your air conditioner when necessary.



CENTRAL STATION
DX

PSC-A128WX2
Management Software: PSC-AS2048WXB2
FOR THE LARGE-SCALE BUILDINGS

Specifications

Outer Dimensions (H*W*D)

(mm) 68.0 * 240.0 * 154.0
(inch) 2.68 * 9.45 * 6.06

Net Weight

1.4 kg
3.1 lbs

Display	Locally-Supplied PC
Display Control	Locally-Supplied
Total Connection Capacity	RCS Group 2048 (*1)
	Group 2048 (*1)
	Block 1280 (*1)
	Indoor Unit 2560 (*1)
Building Scale	Outdoor Unit 1024 (*1)
	Large

*1: One adapter can control "128 groups-64 blocks", and this one system can control up to 16 adapters.

OS	Windows 7 (64 bit) Professional English version
CPU	Intel® Core™2 Duo 1.8GHz or more
Memory	2GB or more
Free Space in Hard Disk Drive	Minimum 5GB for each H-LINK + 0.3GB for each additional REFGN Cycle. (An additional 16GB or more is required for check-unit data collection.)
Display Resolution	1,024 x 768 / 1,280 x 1,024 / 1,600 x 1,200
Drive	CD-ROM Drive (upon installation only)
Interface	IEEE 802.3 (10BASE-T / 100BASE-TX) (With wake-on-LAN function) USB RS-232C

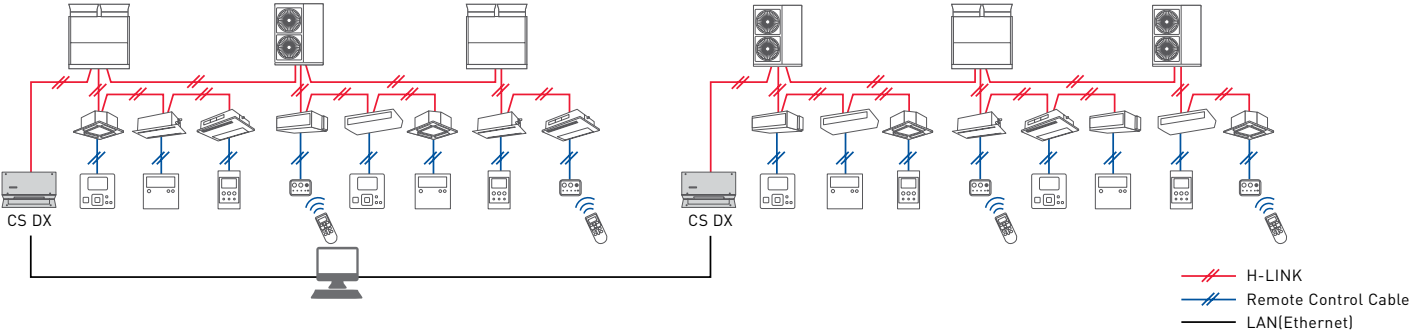
Remarks

- Use the management computer exclusively for this system.
- LAN with wake on LAN function or RS-232 Interface is required for UPS.
- The management computer is assumed to be always ON.
- It is strongly recommended to use a computer for server or industrial use and / or to create a hard disk mirror.
- The durable period for the management computer may differ from that of air conditioners.

Update periodically and discuss the updating procedures in advance.



Example of System Configuration



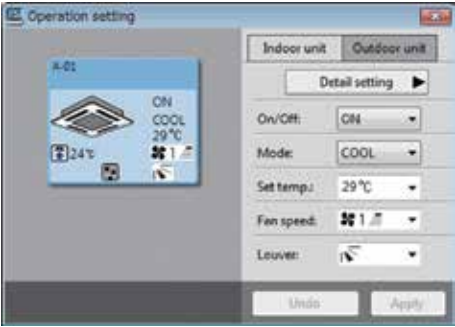
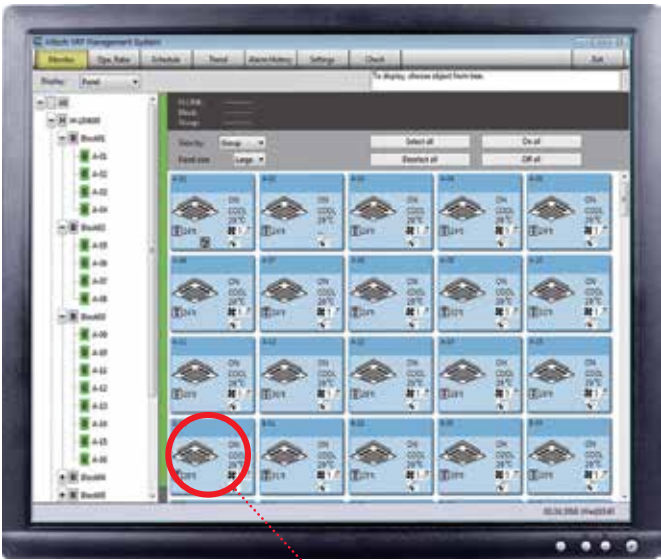
Recommended Facilities

Concurrent Connection, up to PC*5units / Adapter*3units



Panel

Bigger version and smaller version available
=> icon-based panel



Layout

Easy monitoring and control in operation status of each unit in visualized floor plan



Schedule

Regular Schedule Mode
plus
Energy Saving Schedule
plus
Noise Reduction Schedule
Weekly :
16 patterns / day
Annual :
3 patterns / year
On/Off
Set Temp.
Mode
Louver
Fan Speed
Save Power (Outdoor Units)
Limit Sound Levels (Outdoor Units)



Trend Graph

Helps you analyze your consumption / waste of energy (hour/day/week/month)
Running time
Thermo-ON time
Multi targets comparison



[Choose one target]



[Choose multiple targets]

CENTRAL STATION

PSC-A64S



- By connecting to the H-LINK, up to 64 remote control groups and 160 indoor units can be controlled. Up to 8 controllers can be connected to the H-LINK.
- In addition to basic controls such as settings for operation / stop, operation mode and temperature, air quantity and auto louver can be set. If a problem occurs, an alarm code immediately shows the details of the problem.
- An external input terminal is provided as standard. External signals enable the following functions: central operation / stop, demand control, emergency stop, central operation output, and central alarm output.
- Can be used in combination with the ON / OFF Controller.

Outer Dimensions (mm)		
H	W	D
120.0	120.0	70.5
Outer Dimensions (inch)		
H	W	D
4.72	4.72	2.78
Weight		
grams	pounds	
300 g	0.6 lbs	

CENTRALIZED ON / OFF CONTROLLER

PSC-A16RS



- Only performs operation / stop control per remote control group.
 - By connecting to the H-LINK, up to 16 remote control groups and 160 indoor units can be controlled. Up to 8 controllers can be connected to the H-LINK.
 - An external input terminal is provided as standard. External signals enable the following functions: central operation / stop, emergency stop, central operation output, central alarm output.
 - Can be used in combination with the central station.
- * Be sure to use it with a remote control switch. Indoor units cannot be used without a remote control switch.
- * There are restrictions on remote group registration. Please contact our sales staff for more information.

Outer Dimensions (mm)		
H	W	D
120.0	120.0	68.5
Outer Dimensions (inch)		
H	W	D
4.72	4.72	2.70
Weight		
grams	pounds	
300 g	0.7 lbs	

OTHERS

Line-up

Open Network	
HC-A64BNP1 (for BACnet®)	
HARC70-P1 (for LONWORKS®)	
HARC-BX (for LONWORKS®)	

Optional Parts	
7 day timer	PSC-A1T
RAC Adapter	PSC-6RAD
3p connector cable	PCC-1A
Remote Sensor	THM-R2A
Remote Control Cable	PRC-5K
	PRC-10K
	PRC-15K
Receiver Kit	PC-ALH3 for 4-way Cassette
	PC-ALHC1 for 4-way Cassette Compact
	PC-ALHD1 for 2-way Cassette
	PC-ALHS1 for 1-way Cassette
	PC-ALHP1 for Ceiling Suspended
	for Ducted
	for Floor Exposed
	PC-ALHZ1 for Floor Concealed
	for Floor & Ceiling Convertible
	for Wall Mounted
H-LINK Adapter	PSC-5HA
H-LINK Relay	PSC-5HR
H-LINK Remote Control Adapter	PSC-5RA



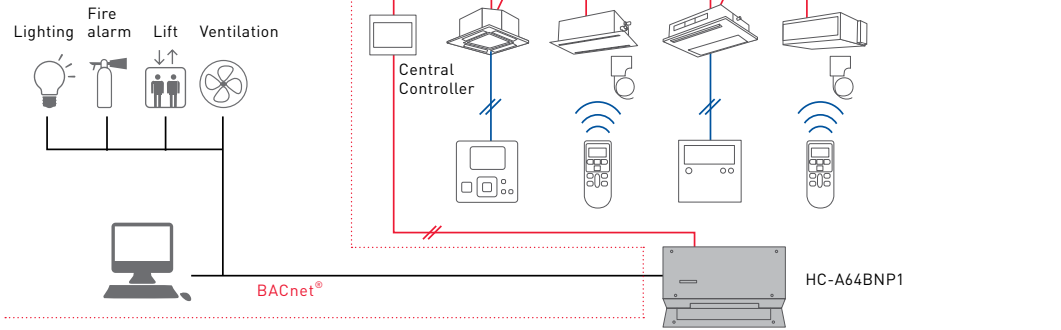
HC-A64BNP1 (for BACnet®)

CONTROL UP TO 64
INDOOR UNITS



Example of System Configuration

Field-supplied



Outer Dimensions (mm)	H	68.0
	W	240.0
	D	154.0
Outer Dimensions (inch)	H	2.68
	W	9.45
	D	6.06
Weight	grams	1,400 g
	pounds	3.1 lbs

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

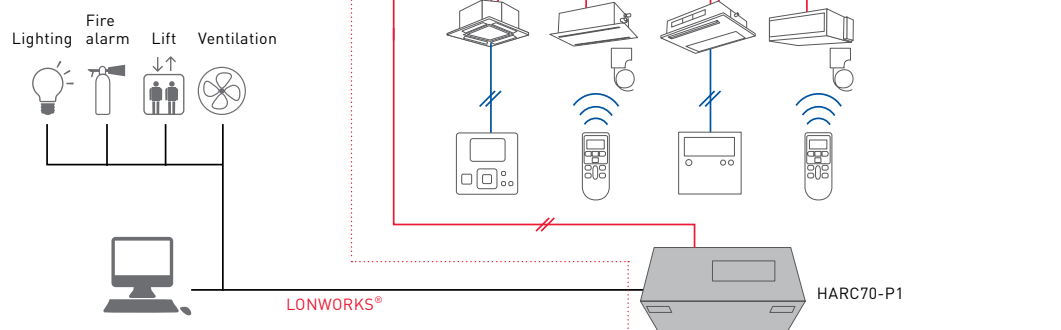
HARC70-P1 (for LONWORKS®)

BIGGER
CONNECTION
CAPACITY (UP TO 128
INDOOR UNITS)



Example of System Configuration

Field-supplied



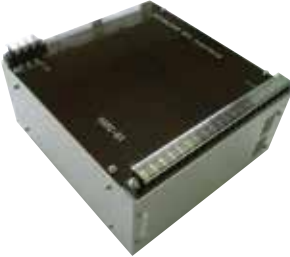
Outer Dimensions (mm)	H	80.0
	W	170.0
	D	75.0
Outer Dimensions (inch)	H	3.15
	W	6.69
	D	2.95
Weight	grams	440 g
	pounds	0.97 lbs

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

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

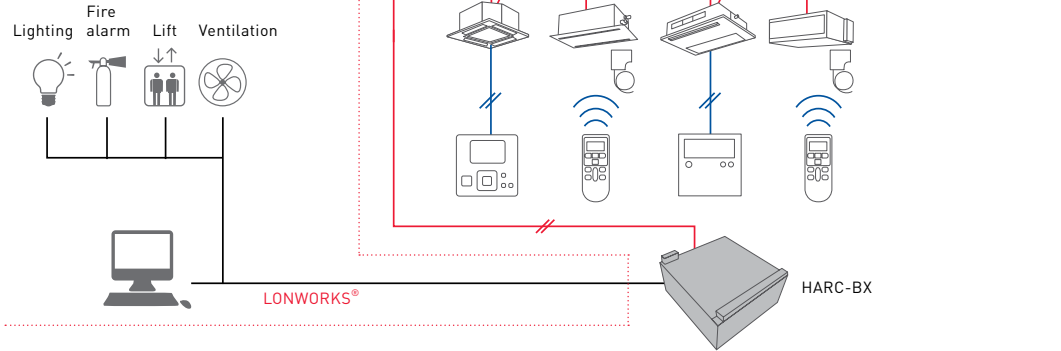
HARC-BX (for LONWORKS®)

CONNECT TO
MULTIPLE H-LINK
WITH H-LINK
TRANSMISSION
TERMINAL TO 8 PCB



Example of System Configuration

Field-supplied



Outer Dimensions (mm)	H	285.0
	W	240.0
	D	128.5
Outer Dimensions (inch)	H	11.22
	W	9.45
	D	5.06
Weight	grams	2,300 g
	pounds	5.1 lbs

Standard	
Connection Method to Upper System	Connection by SNVT (Standard Network Variable Type) to LONWORKS® Network
Connection Quantity	64 Indoor Units (8 Indoor Units per 1 PCB)
Control Item in Upper System (n: 0~7)	On / Off Order (nviOnOff_n), · Temperature Setting (nviSetPoint_n), · Operation Mode Setting (nviMode_n), · All On / Off Order (nviAllOnOff)
Monitoring Item in Upper System (n: 0~7)	- On / Off State & Alarm (nvoOnOff_n), · Temperature Setting (nvoSetPoint_n) - Operation Mode State (nvoMode_n), · Individual Thermostat State (nvoThermo_n)
Option A	
Connection Method to Upper System	Connection by SNVT (Standard Network Variable Type) to LONWORKS® Network
Connection Quantity	64 Indoor Units (8 Indoor Units per 1 PCB)
Control Item at Upper System (n: 0~7)	On / Off Order (nviOnOff_n), · Temperature Setting (nviSetPoint_n), · Fan Speed Setting (nviFanSpeed_n), · Operation Mode Setting (nviMode_n), · All On / Off Order (nviAllOnOff), · R.C. Sw Permission / Prohibition (nviProhibit_n)
Monitoring Item at Upper System (n: 0~7)	On / Off State & Alarm (nvoOnOff_n), · Inlet Air Temperature (nvoInletTemp_n)
Option B	
Connection Method to Upper System	Connection by SNVT (Standard Network Variable Type) to LONWORKS® Network
Connection Quantity	32 Indoor Units (4 Indoor Units per 1 PCB)
Control Item at Upper System (n: 0~3)	On / Off Order (nviOnOff_n), · Fan Speed Setting (nviFanSpeed_n), · Operation Mode Setting (nviMode_n), · R.C. Sw Permission / Prohibition (nviProhibit_n), · Temperature Setting (nviSetPoint_n), · All On / Off Order (nviAllOnOff), · Louver Position Setting (nviLouver_n)
Monitoring Item at Upper System (n: 0~3)	On / Off State & Alarm (nvoOnOff_n), · Temperature Setting (nvoSetPoint_n), · Operation Mode State (nvoMode_n), · Louver Position (nvoLouver_n), · Fan Speed Setting (nvoFanSpeed_n), · Alarm Code (nvoAlarmDescr_n), · Inlet Air Temperature (nvoInletTemp_n), · Outlet Air Temperature (nvoOutletTemp_n), · Outdoor Air Temperature (nvoAmbientTemp)

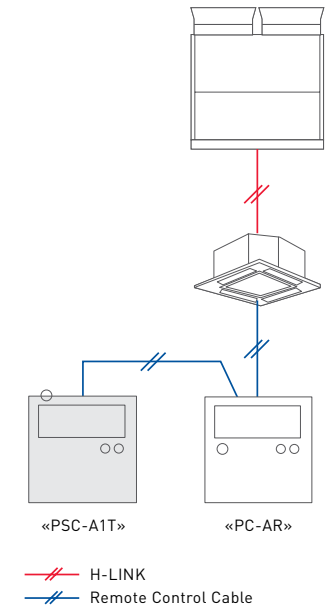
·The number of maximum connectable refrigerant system is 8 (0 to 7). The available setting range of refrigerant system number and indoor unit address is 0 to 15.
·All indoor units connected to the PCB need to have same refrigerant system number.

7 day timer

PSC-A1T
SCHEDULING OPERATION WITH
PSC-A64S / PC-AR / PSC-A16RS

PSC-A1T	
Outer Dimensions (mm)	H 120.0
	W 120.0
	D 17.0
Outer Dimensions (inch)	H 4.72
	W 4.72
	D 0.67

Example of System Configuration

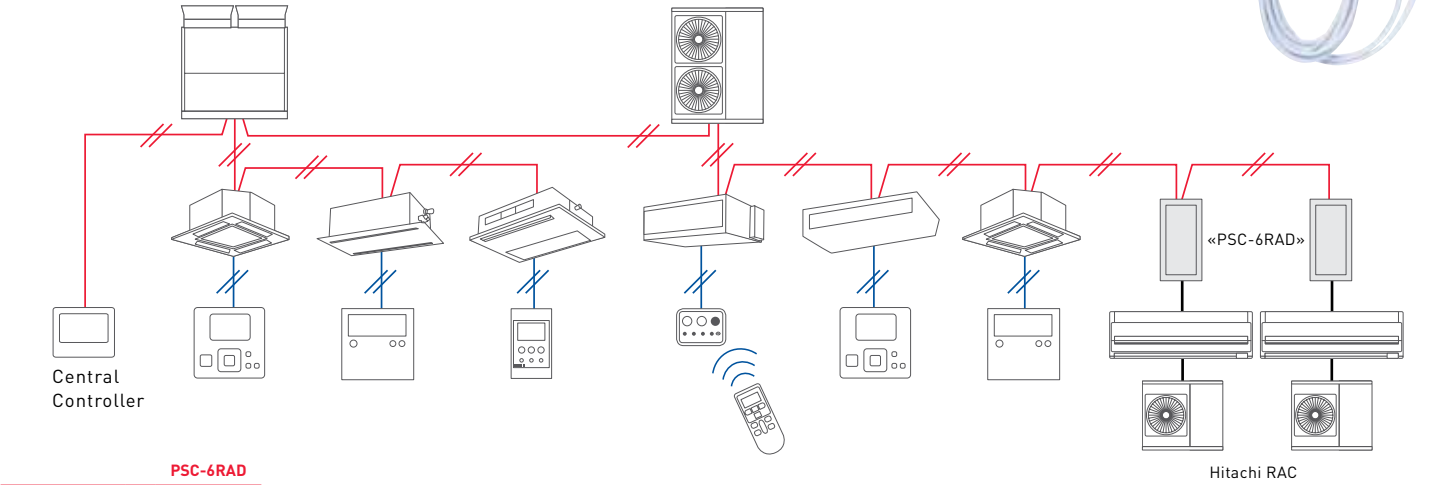


- By using PSC-A1T with PSC-A64S or PC-AR controllers, the air conditioners controlled by them can be operated according to a schedule.
- The timer can be set at 7-day intervals, and operation / stop can be set 3 times daily.
- Remote control can be prohibited in accordance with the OFF time (when used with PSC-A64S and PC-AR).
- Two types of weekly schedule (A and B) can be set, and can easily be changed for summer and winter.
- The settings are all digitally displayed, allowing operations and settings to be checked easily.
- The power failure backup function prevents the timer from being stopped due to a power failure lasting up to 2 weeks.

RAC Adapter

PSC-6RAD
TO CONTROL HITACHI RAC THROUGH CS-NET

Example of System Configuration



PSC-6RAD	
Outer Dimensions (mm)	H 25.0
	W 60.0
	D 130.0
Outer Dimensions (inch)	H 0.98
	W 2.36
	D 5.12

*1 unit of RAC requires 1 unit of RAC Adapter to control by CS-Net.
*Some of RAC Series are not available with CS-Net. Please contact the sales staff for more information.

- H-LINK
- Remote Control Cable
- Room Air Conditioner Control Cable

3P Connector Cable

PCC-1A
FOR CONNECTION TO REMOTE ON/OFF DEVICE /
RECEIPT OF OUTPUT SIGNAL

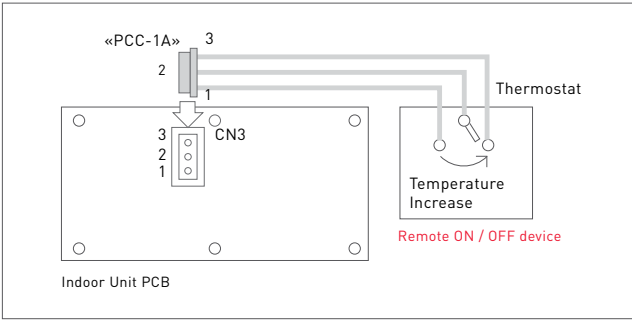
*One set contains five 3P connector cables.
*PCC-1A can connect to external signal input-output terminal both in Outdoor Unit and Indoor Unit.

Operation «example»

Cooling Operation:
Compressor is ON by closing terminals 2 and 3 of CN3
Compressor is OFF by opening terminals 2 and 3 of CN3

Heating Operation:
Compressor is ON by closing terminals 1 and 2 of CN3
Compressor is OFF by opening terminals 1 and 2 of CN3

Example of System Configuration



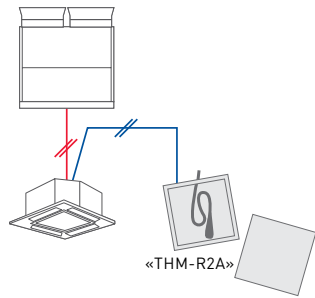
- H-LINK
- Remote Control Cable

Remote Sensor

THM-R2A
TO SENSE THE
INDOOR TEMPERATURE

THM-R2A	
Outer Dimensions (mm)	H 50.0
	W 50.0
	D 15.0
Outer Dimensions (inch)	H 1.97
	W 1.97
	D 0.59
Length	M 8.00
	ft 26.25

Example of System Configuration



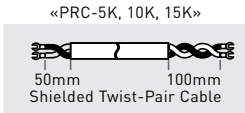
- H-LINK
- Remote Sensor Cord

*When the room temperature sensing thermistor (Remote Sensor) is attached to the auxiliary connector, the unit is controlled at average air temperature at the indoor inlet and Remote Sensor point.
*Not compatible with Wall Type(RPK) indoor unit.

Remote Control Cable

PRC-5K, 10K, 15K
FOR PC-ARF AND PC-AR CONNECTION (TO IDU)

		PRC-5K	PRC-10K	PRC-15K
Length	M	5.00	10.00	15.00
	ft	16.40	32.81	49.21



- H-LINK
- Remote Control Cable

*Neither PC-AR or PC-ARF include a remote control cable.
Use this cable if you don't have one available in your field.

Receiver kit

FOR WIRELESS REMOTE CONTROLLER (PC-AWR)

		PC-ALH3	PC-ALHC1	PC-ALHD1	PC-ALHS1	PC-ALHP1	PC-ALHZ1
Outer Dimensions (mm)	H	36.0	35.0	27.5	25.0	23.0	28.0
	W	203.0	207.4	135.4	102.0	102.0	120.0
	D	203.0	207.4	135.4	115.0	115.0	90.0
Outer Dimensions (inch)	H	1.42	1.38	1.08	0.98	0.91	1.10
	W	7.99	8.17	5.33	4.02	4.02	4.72
	D	7.99	8.17	5.33	4.53	4.53	3.54

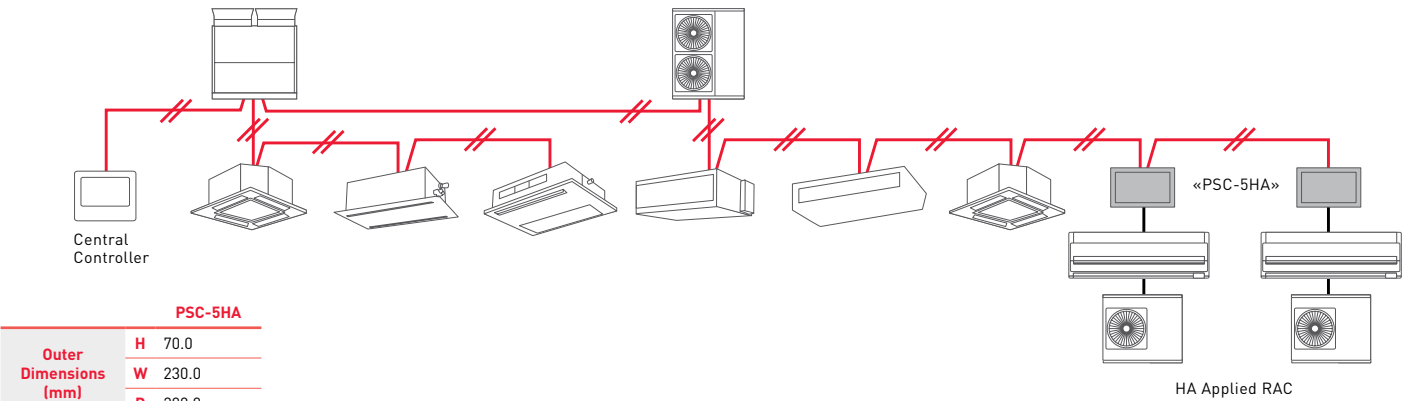
	PC-ALH3	PC-ALHC1	PC-ALHD1	PC-ALHS1	PC-ALHP1	PC-ALHZ1				
Model										
For IDU IDU model	4-way Cassette	4-way Cassette Compact	2-way Cassette	1-way Cassette	Ceiling Suspended	Ducted	Floor Exposed	Floor Concealed	Floor & Ceiling Convertible	Wall Mounted
										



H-LINK Adapter

PSC-5HA
FOR CONNECTION TO “HA APPLIED RAC”

Example of System Configuration



PSC-5HA	
Outer Dimensions (mm)	H 70.0
	W 230.0
	D 200.0
Outer Dimensions (inch)	H 2.76
	W 9.06
	D 7.87

*1 unit of “HA applied RAC” requires 1 unit of PSC-5HA
*Need to use H-LINK Adapter(PSC-5HA) to control “HA Applied” Room Air Conditioner (including other companies’ RAC) via CS-NET.

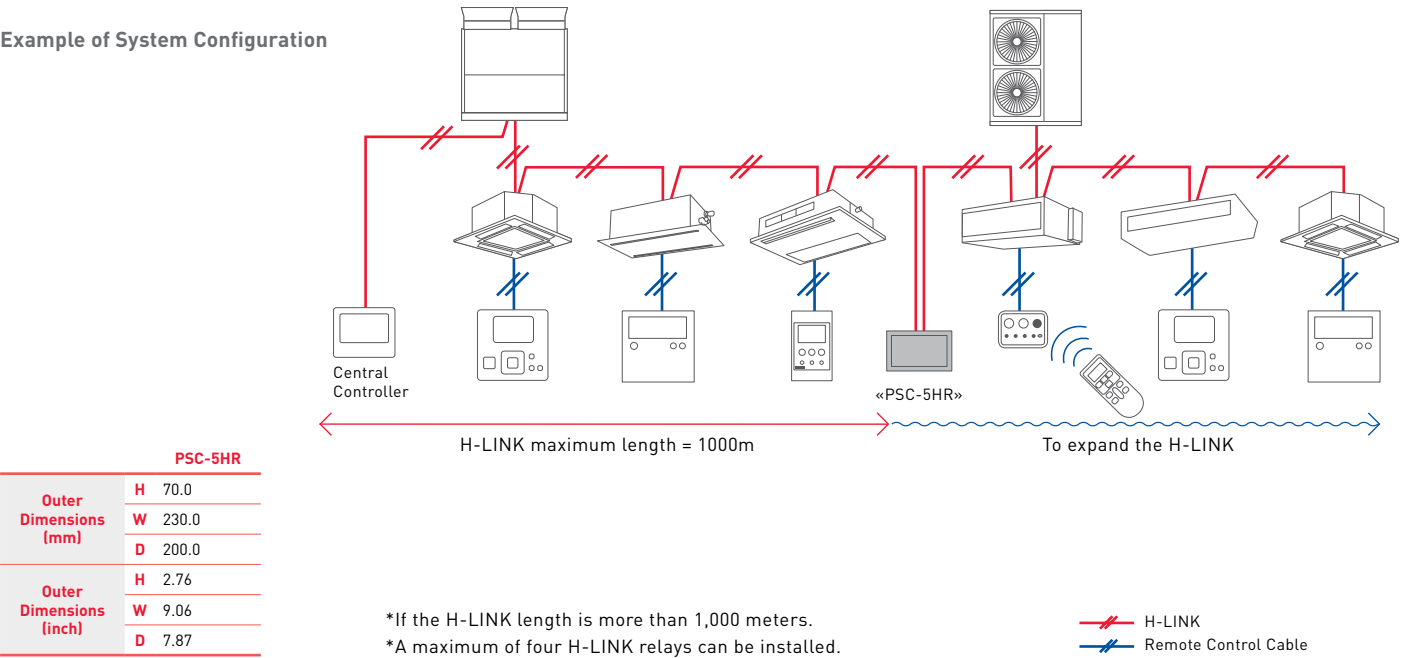
 H-LINK
 Room Air Conditioner Control Cable



H-LINK relay

PSC-5HR
FOR LONG-DISTANCE
CONNECTION IN H-LINK

Example of System Configuration



PSC-5HR	
Outer Dimensions (mm)	H 70.0
	W 230.0
	D 200.0
Outer Dimensions (inch)	H 2.76
	W 9.06
	D 7.87

*If the H-LINK length is more than 1,000 meters.
*A maximum of four H-LINK relays can be installed.

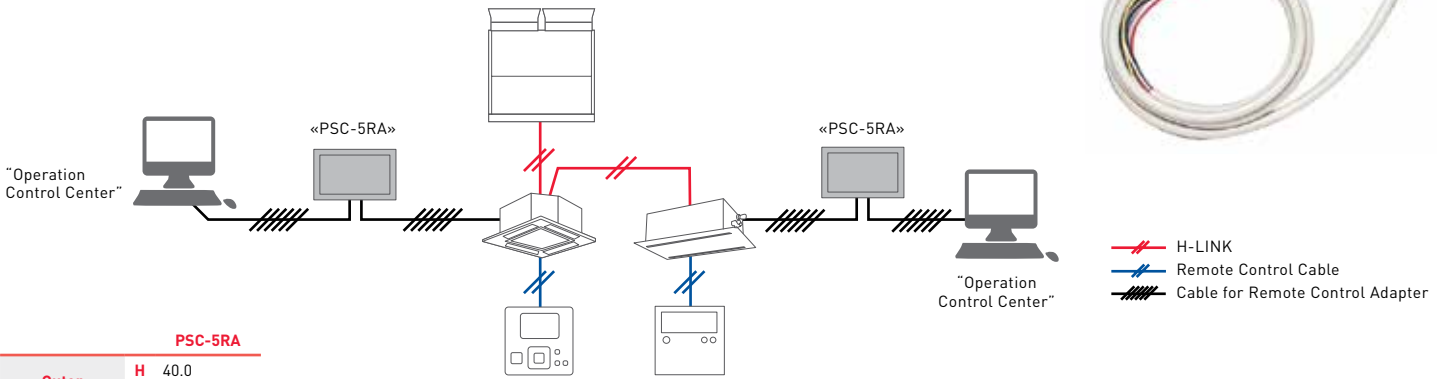
 H-LINK
 Remote Control Cable



H-LINK Remote-Control Adapter

PSC-5RA
BETWEEN INDOOR UNIT AND
BUILDING OPERATION CENTER

Example of System Configuration



PSC-5RA	
Outer Dimensions (mm)	H 40.0
	W 125.0
	D 115.0
Outer Dimensions (inch)	H 1.57
	W 4.92
	D 4.53

*To connect the operation control center in the building,
One indoor unit by one PSC-5RA.



Hitachi VRF History

... Main Products



Air compressor
Casting



Hitachi's 1st Packaged AC (Water-cooled) (Floor Standing type)



PAC exported from Shimizu to UK for the 1st time



1st Overseas Factory founded in Taiwan



IDU: Wall Mounted type (RPK)



IDU: Ceiling Cassette type



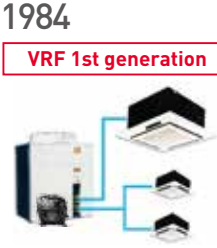
IDU: 4-way Ceiling Cassette type (RCI)



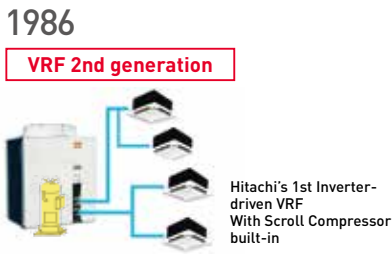
Scroll Compressor Production for AC unit.



World's first PAC with Scroll Compressor built-in



Hitachi's first VRF "High-Multi" series
*Contains multiple reciprocating compressors
*Individual IDU control available



Hitachi's 1st Inverter-driven VRF With Scroll Compressor built-in



World 1st Inverter-driven VRF Up to 115 Hz in 1986



Newly R410A adopted VRF "SET FREE FSN": heat-pump type "SET FREE FXN": heat-recovery type



Centrifugal VRF Point: "Outdoor unit" that can be installed inside the building

1940

1950

1960

1970

1980

1990

2000

2010

Roller Casting



Roller for mill



Large casting; fan for tunnel



Compressor for Refrigerators

PAC Refrigerators
Compressor for REF Casting



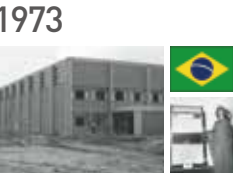
First training School established Refrigerators



1st air-cooled Unitary PAC for export market



IDU: Floor-exposed type (RPF)



2nd Overseas Factory founded in Brazil



IDU: Ceiling Built-in type (RPI)



IDU: Ceiling Suspended type (RPC)

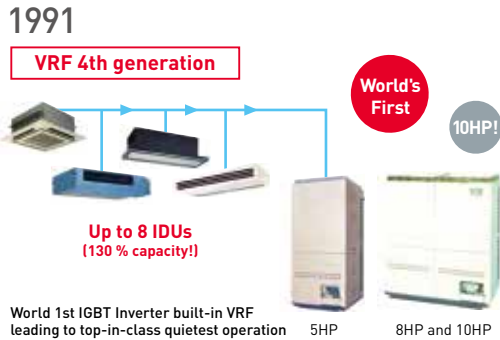


ODU: for low-ambient-temperature market

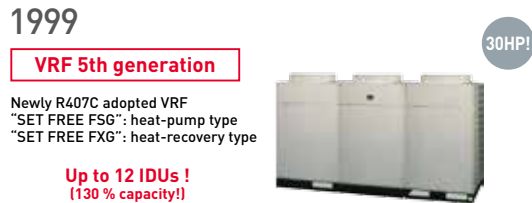


ODU: PAC controlled by micro-computer built-in

VRF PAC
Compressors



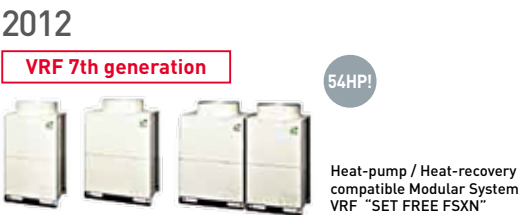
World 1st IGBT Inverter built-in VRF leading to top-in-class quietest operation 5HP 8HP and 10HP



Newly R407C adopted VRF "SET FREE FSG": heat-pump type "SET FREE FXG": heat-recovery type

Up to 12 IDUs! (130 % capacity!)

VRF PAC
Compressors



Heat-pump / Heat-recovery compatible Modular System VRF "SET FREE FSXN"



Hitachi New Generation VRF This New Generation VRF is 8th Generation VRF! after 33Years Experience in VRF