#### **HITACHI**

# airCore 700

## **R32 Single Split Systems**

**Ducted | Cassette | Ceiling Suspended** 



Cooling & Heating



Hitachi provides a comprehensive range of split air conditioning systems designed for various applications, catering to both light commercial projects and residential settings.

The new light commercial split system, airCore 700, incorporates features that offer superior comfort, achieve outstanding energy efficiency, simplify installation, and streamline maintenance. This ensures a superior living experience for users and provides convenience for professionals. Building owners and tenants will appreciate the diverse range of indoor unit design options that seamlessly blend into any interior space.







RESTAURANT



NURSING HOME

CLINIC





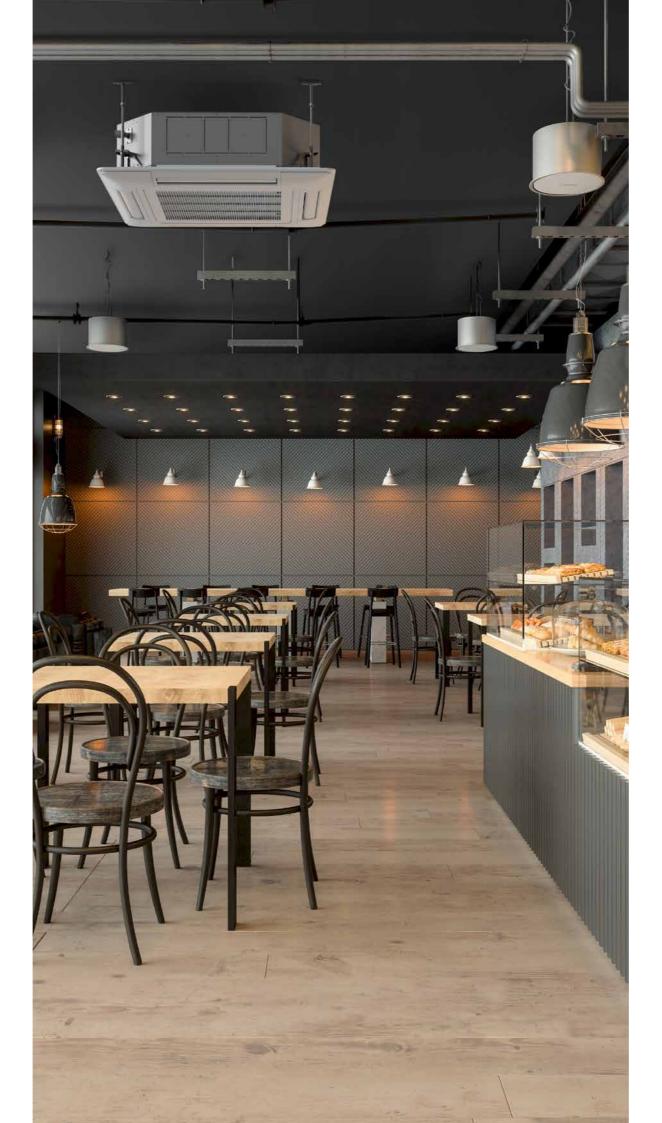








DATA CENTRE



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Higher efficiency, lower GWP

Smarter design, easier life

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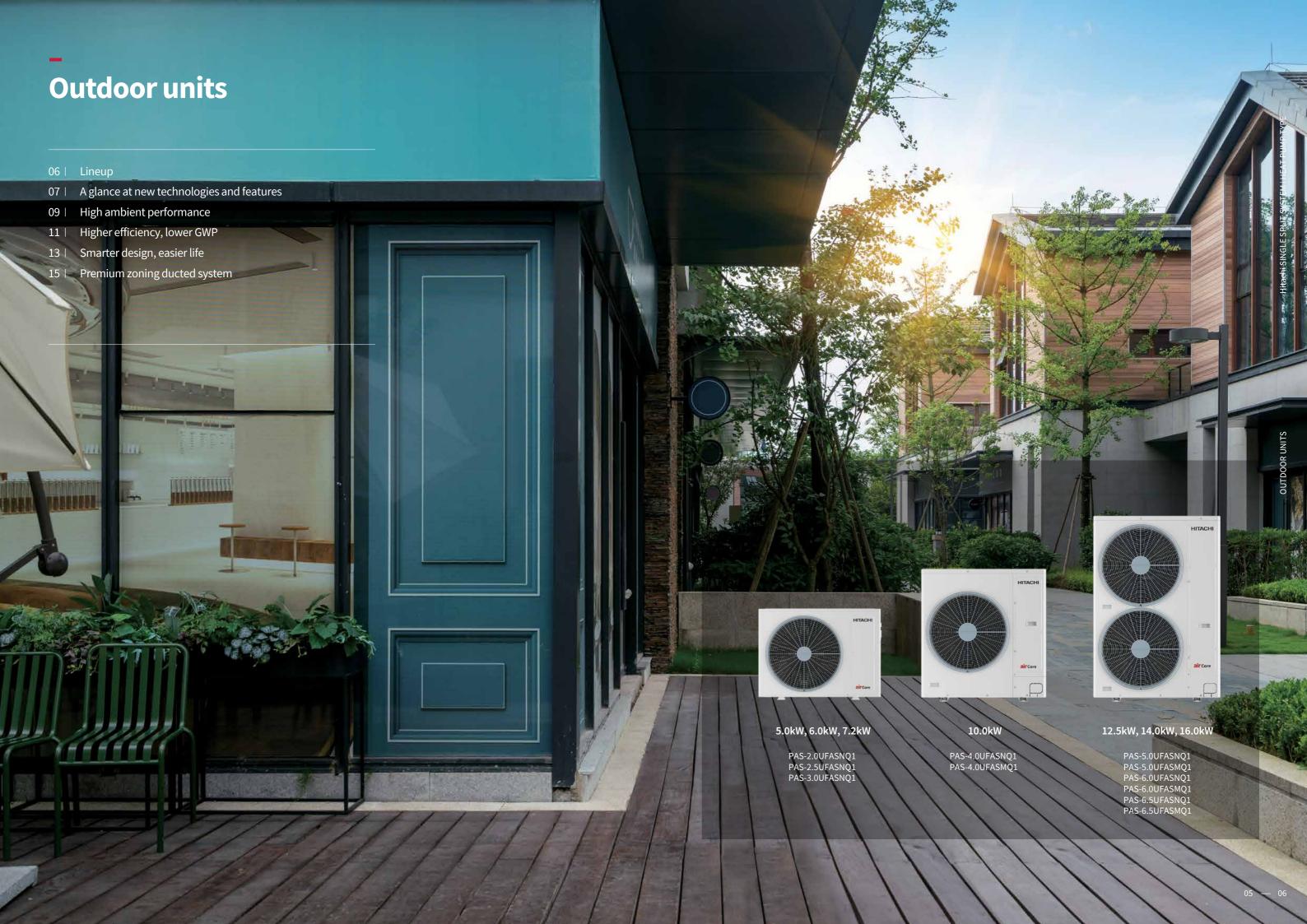
H-LINK Integration

#### **Specifications**

## **Product Lineups**

| Rated Cap        | acity (Cooling       | g/Heating)                            | 5.0/6.0kW      | 6.0/7.5kW       | 7.2/8.6kW      | 10.0/11.5¹kW                | 12.5/14.0kW             | 14.0/16.0¹kW                | 16.0/18.0kW    |
|------------------|----------------------|---------------------------------------|----------------|-----------------|----------------|-----------------------------|-------------------------|-----------------------------|----------------|
| Outdoor<br>Units |                      | Q1 (single phase)<br>Q1 (three phase) | PAS-2.0UFASNQ1 | PAS-2.5UFASNQ1  | PAS-3.0UFASNQ1 | PAS-4.0UFASNQ1              | PAS-5.0UFASNQ1          | PAS-6.0UFASNQ1              | PAS-6.5UFASNQ1 |
|                  |                      |                                       |                |                 |                | PAS-4.0UFASMQ1              | PAS-5.0UFASMQ1          | PAS-6.0UFASMQ1              | PAS-6.5UFASMQ1 |
|                  |                      | MSP                                   | PPIM-2.0UFA1NQ | PPIM-2.5 UFA1NQ | PPIM-3.0UFA1NQ | PPIM-4.0UFA1NQ              | PPIM-5.0UFA1NQ          | PPIM-6.0UFA1NQ              |                |
|                  | Ducted               |                                       |                |                 |                |                             |                         |                             |                |
|                  |                      | HSP                                   |                |                 | PPIH-3.0UFA1NQ | PPIH-4.0UFA1NQ <sup>1</sup> | PPIH-5.0UFA1NQ          | PPIH-6.0UFA1NQ <sup>1</sup> | PPIH-6.5UFA1NQ |
|                  |                      | Standard<br>Panel                     | PCI-2.0UFA1NQ  | PCI-2.5UFA1NQ   | PCI-3.0UFA1NQ  | PCI-4.0UFA1NQ               | PCI-5.0UFA1NQ           | PCI-6.0UFA1NQ               | PCI-6.5UFA1NQ  |
| Indoor<br>Units  | Cassette             | Human Sensor<br>Panel (optional)      | P-AP160NAE2*EX | P-AP160NAE2*EX  | P-AP160NAE2*EX | P-AP160NAE2*EX              | P-AP160NAE2*EX          | P-AP160NAE2*EX              | P-AP160NAE2*EX |
|                  |                      | Silent Iconic<br>Panel (optional)     | P-GP160NAPU*EX |                 | 60KAP*EX       |                             | P-GP160NAPU*EX P-GP160N |                             |                |
|                  | Ceiling<br>Suspended |                                       | PPFC-2.0UFA1NQ | PPFC-2.5UFA1NQ  | PPFC-3.0UFA1NQ | PPFC-4.0UFA1NQ              | PPFC-5.0UFA1NQ          | PPFC-6.0UFA1NQ              |                |

 $<sup>^{\</sup>rm 1}$  PPIH-4.0UFA1NQ 12.5 kW Heating. PPIH-6.0UFA1NQ 16.5 kW Heating.



## **Outdoor units**

## A GLANCE AT NEW TECHNOLOGIES AND FEATURES

#### Fan design

 Adopt DC motor with 16 speed control, more energy saving and higher energy efficiency.

HITACHI

## Superior compressor and pre-heating function

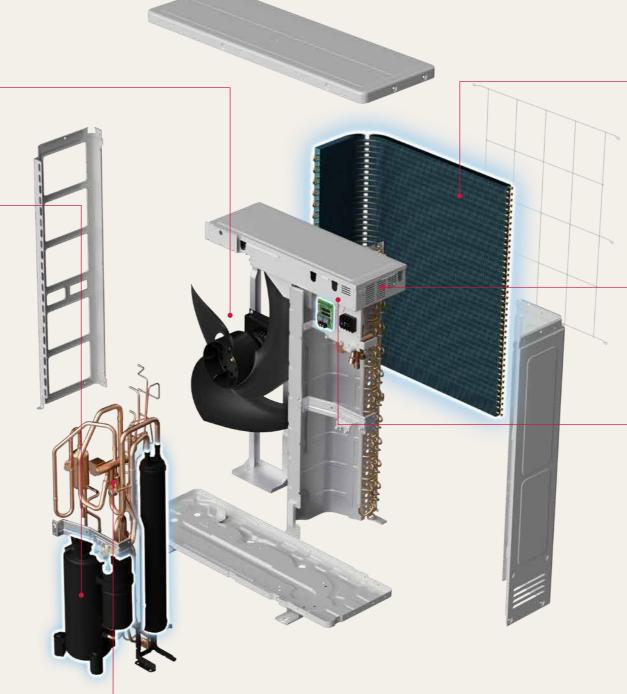
- Adopt new R32 DC inverter compressors that incorporates Hitachi's exclusive compressor control technology.
- Uses advanced multi-pulse control induction on coil, core, rotor and stator, eliminating use of external crankcase heater
- Enhances efficiency of pre-heating in low ambient conditions and reduces startup time

#### Fan grille design

• Discover a whole new level of performance with better heat dissipation and a modern look

## Easy installation and maintenance

- Piping options in 4 directions: depending on the installation situation, installers can choose from 4 running pipe directions.
- Easier removal of front service cover: the screws you need to open/close the front serve cover are all on the front side.



#### Excellent heat exchanger design

• Features a newly improved refrigerant path and a new fin shape, make the unit more efficient.

#### New printed circuit board

 With Hitachi's exclusive compressor control technology, operation is more comfortable and consistent.

#### **Electrical box protection**

 Equipped with advanced electrical box protection, which is vital for safety as it prevents dust, moisture, and physical damage, ensuring proper function, easier maintenance, compliance with regulations, and ultimately extends component lifespan.

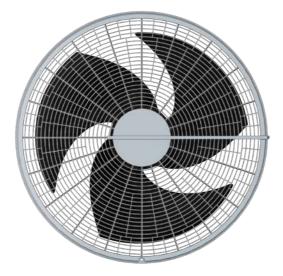
#### **Electronic expansion valve**

 Adopt high precision electronic expansion valves for higher control accuracy and more accurate temperature control.

## **Product features**

#### **New Fan and Fan Grille Design**

airCore 700 features both an enhanced fan and fan grille design compared to the previous generation product. The upgraded design not only improves heat discharge but also enhances the overall appearance, meeting the stringent requirements of engineers, business owners, and designers alike.

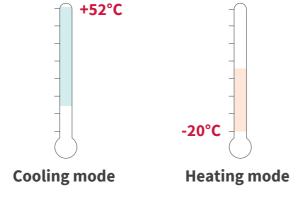


#### **Excellent Heat Exchanger Design**

Features a newly improved refrigerant path and a new fin shape, make the unit more efficient.

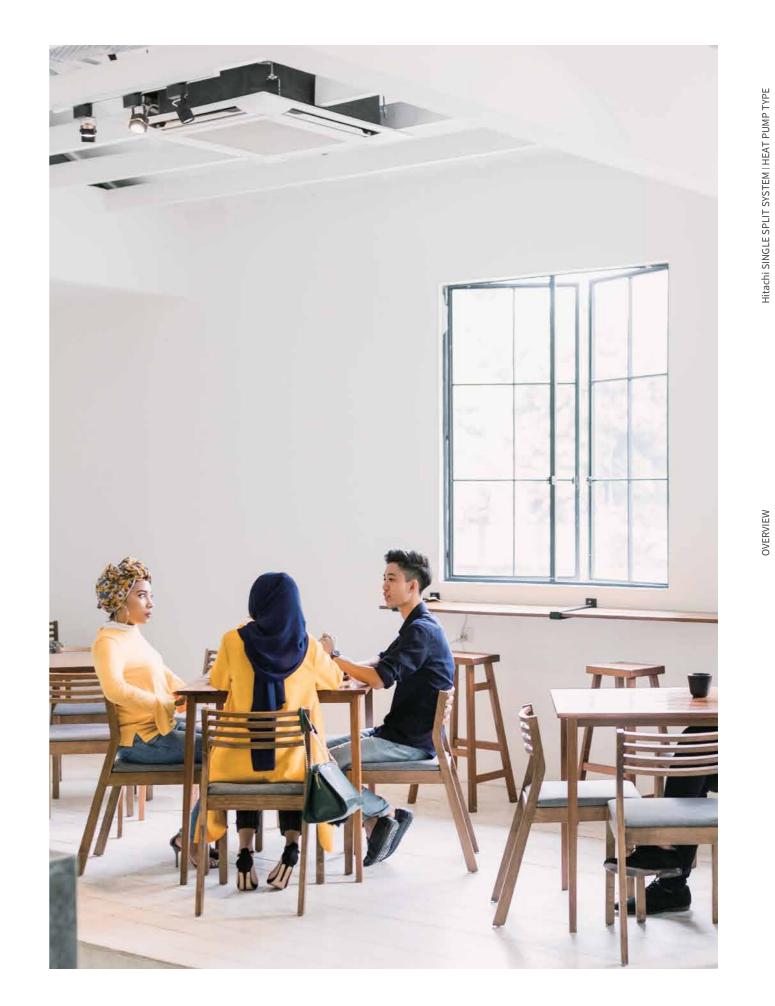
#### **Wide Operation Range**

Cooling operation temperature range:-5~52°C Heating operation temperature range:-20~15.5°C Wide operation range to meet the needs of different environments.



#### **Superior Compressor and Pre-heating Function**

- Adopting a new R32 DC inverter compressor results in greater energy efficiency.
- Pre-heating the compressor in low ambient conditions is accomplished through advanced multi-pulse control applied to the induction coil, core, rotor, and stator, eliminating the need for an external crankcase heater. This improvement enhances the efficiency of pre-heating in low ambient and reduces startup time.



OUTDOOR UNITS

#### **R32 low GWP Refrigerant**

Hitachi is committed to reducing the environmental impact of its products by using refrigerants with low Global Warming Potential (GWP). The **airCore 700** split systems utilize R32, a low GWP refrigerant, as a replacement for the older R410a refrigerant. R32 offers improved energy efficiency and reduces emissions, allowing for smaller, more compact air conditioning systems that require less refrigerant overall. Its GWP is 675, significantly lower than that of R410a.

|       | Ozone Depletion Potential | <b>Global Warming Potential</b> |
|-------|---------------------------|---------------------------------|
| R32   | 0                         | 675                             |
| R410A | 0                         | 2,090                           |
| R22   | 0.05                      | 1,810                           |
|       |                           |                                 |



Comparing refrigerant charge against R22.

#### **Energy Efficiency**

**airCore 700** has high energy efficiency. AEER up to 4.20 ACOP up to 4.58





#### **HSP Ducted unit**



#### Cassette unit



#### **Ceiling Suspended unit**



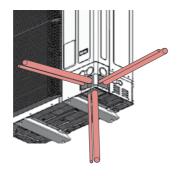
Notes: The charts indicate the highest AEER and ACOP of each model.

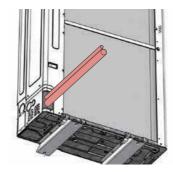


2 LOW GWP

#### **Flexibility for Easy Maintenance**

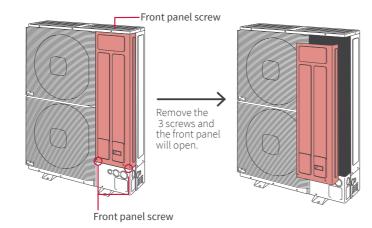
The outdoor unit of airCore 700 is designed with piping options available in four directions, allowing for flexible installation based on the specific situation. Installers have the choice of four running pipe direction options, providing adaptability for various installation scenarios. Additionally, the unit features an improved front service cover removal design; all the screws required to open or close the front service cover are conveniently located on the front side.





[Front/Right/Bottom]

[Rear]





Electrical box protection is vital for safety. Hitachi airCore 700, equipped with electrical box protection that can prevent dust, moisture, and physical damage, ensures proper function and easier maintenance, and, of course, meets compliance with regulations. Ultimately, it achieves the extension of the component lifespan.

#### **Capable of Demand Response**

- Interface provided for connection to DRED by the electrical utility provider.
- Capable of three modes: DRM1, DRM2, DRM3.
- Able to activate these modes accordingly during periods of peak electricity demand.

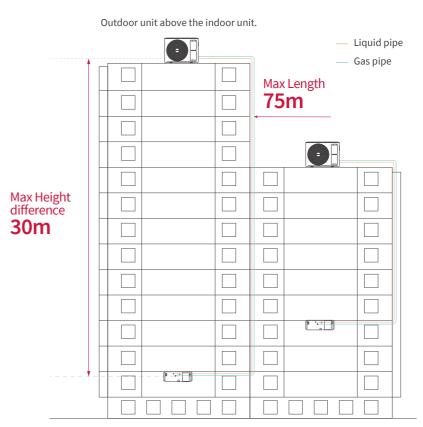


airCore 700 significantly reduces the noise levels of the outdoor unit and offers the feature to schedule night quiet operation is available for all indoor unit types. The sound power level has decreased to 49dB. (MSP Model 5.0kW~7.2kW)



#### **Long Piping and Large Height Difference**

Accommodating up to 75m of piping run and 30m in height, this offers a great deal of flexibility in terms of installation.



Note: only available to model 7.2~16.0kW

| MSP Ducted      |            |       |       |       |        |        |        |
|-----------------|------------|-------|-------|-------|--------|--------|--------|
| Piping          | Model (kW) | 5.0   | 6.0   | 7.2   | 10.0   | 12.5   | 14.0   |
| Diameter (Liqui | d) mm      | Φ6.35 | Ф6.35 | Ф6.35 | Ф9.52  | Φ9.52  | Ф9.52  |
| Diameter (Gas)  | mm         | Ф12.7 | Ф12.7 | Ф12.7 | Ф15.88 | Ф15.88 | Ф15.88 |
| Max Length      | m          | 50    | 50    | 75    | 75     | 75     | 75     |
| Max Height      | m          | 30    | 30    | 30    | 30     | 30     | 30     |

#### **HSP Ducted**

| Piping Mo         | del (kW) | 7.2   | 10.0   | 12.5   | 14.0   | 16.0   |
|-------------------|----------|-------|--------|--------|--------|--------|
| Diameter (Liquid) | mm       | Ф6.35 | Ф9.52  | Ф9.52  | Ф9.52  | Ф9.52  |
| Diameter (Gas)    | mm       | Ф12.7 | Ф15.88 | Ф15.88 | Ф15.88 | Ф15.88 |
| Max Length        | m        | 75    | 75     | 75     | 75     | 75     |
| Max Height        | m        | 30    | 30     | 30     | 30     | 30     |



13 - 14

## **Outdoor units** PREMIUM ZONING DUCTED SYSTEM

The premium zoning kit is compatible with the airCore 700 ducted system, designed for both medium ESP and high ESP indoor units.

#### **Realising individual zone control**

Allow the connection of up to 8 zones. Possible to connect each zone with thermostat for individual room set point temperatures.

#### Optimises airflow into each zone

Optimising comfort with modulating damper control for each zone and regulates airflow based on set point temperature on thermostat.

#### **Zoning Control**

- Wired remote controller (WRC, PC-ARFG2-Z) enables central control of all zones through the premium zoning system. When enabled, the home screen with zone control icon and set temperature in each zone will be displayed.
- Monitoring all individual zone status is available from the zone control screen. ON/OFF, set temperature, fan speed can be set for each individual zone from WRC.
- Weekly operation schedule can be set to control the zoning system. Individual zones can be selected to program different operation times and temperatures in each.





airCloud Go

Remotely control premium zoning system by airCloud Go.

- Control your AC from anywhere
- 7-Day operation schedulue
- Control each individual zone



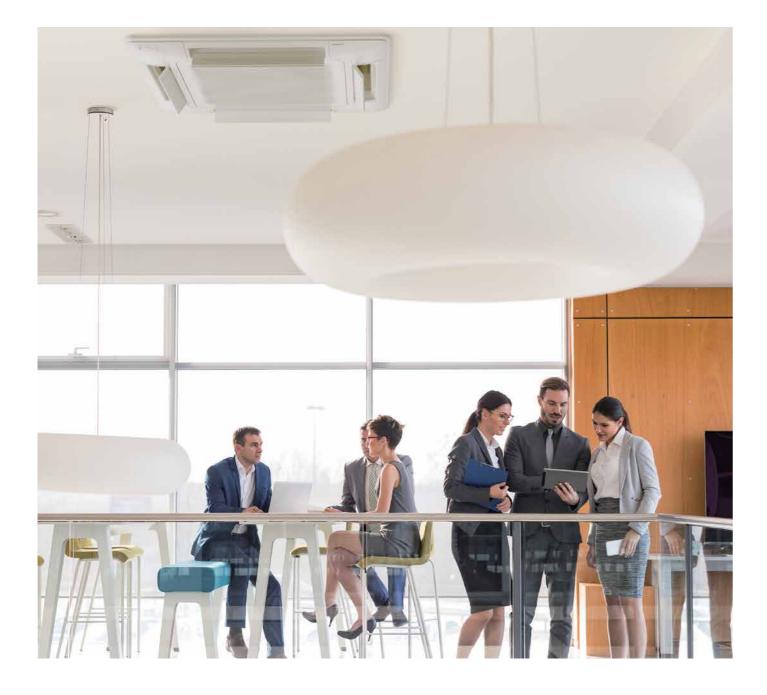


## **FrostWash**<sup>™</sup>

#### Now available on airCore 700 Indoor Units

All indoor units including ducted, cassette, and ceiling suspended systems, are equipped with Frostwash™. This allows the unit to freeze dirt and dust trapped in the heat exchange of the indoor unit, and then defrost it and dry it effectively cleaning the hex and helping to safeguard long-term performance by maintaining good airflow.





#### How does it work?

- FrostWash<sup>™</sup> freezes the heat exchanger, capturing the dirt.
- When the frost melts, the dirt detaches from the fins.
- As a result, the air volume can be maintained over time, which contributes to a sustainable performance of the indoor unit and comfort.

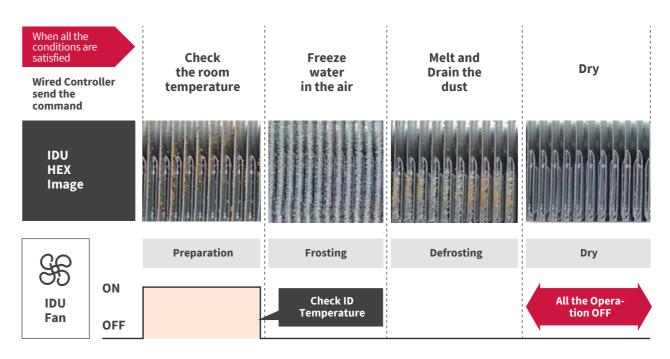
FrostWash™ process can be activated manually or automatically at scheduled intervals.

 $^{\star}$  1 Dirt removal depends on the usage environment.



#### Frostwash™ helps to maintain airflow performance

With Frostwash™ through the freezing defrosting and drying process, any dust and pollutants collected on the coil are discharged outside along with the condensate water, effectively maintaining the airflow performance of the indoor unit.



## **Indoor units DUCTED | LINEUP**

**MSP Ducted** (ESP range: 35~215Pa)



PPIM-2.0UFA1NQ PPIM-2.5UFA1NQ



5.0kW, 6.0kW

PPIM-3.0UFA1NQ



7.2kW

PPIM-4.0UFA1NQ PPIM-5.0UFA1NO PPIM-6.0UFA1NQ

10.0kW, 12.5kW, 14.0kW

**HSP Ducted** (ESP range: 35~310Pa)



PPIH-3.0UFA1NQ PPIH-4.0UFA1NQ

7.2kW, 10.0kW



PPIH-5.0UFA1NQ PPIH-6.0UFA1NQ PPIH-6.5UFA1NQ

12.5kW, 14.0kW, 16.0kW

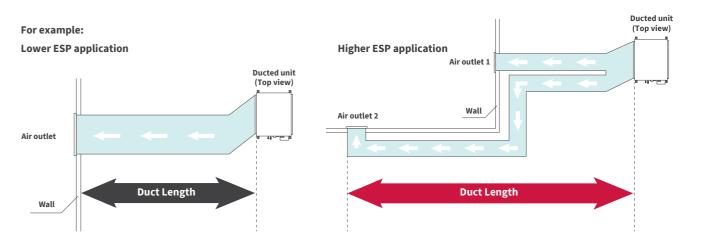


## **Indoor units DUCTED**

#### Wide ESP range up to 310Pa

airCore 700 offers both mid and high static pressure ducted systems, providing for a wide range of ducted layouts and applications. The mid-ESP variant is designed to handle an ESP range of 35~215Pa, while the high-ESP models are designed to handle an ESP range of 35~310Pa.

A wide ESP range means airCore 700 is suitable for spaces with many discrete areas, including corners and recesses. Multiple outlets can be connected to the ducted unit to ensure a uniform gust of air around a complex space. A system can be set up in a short time and will run reliably into the future.



#### **Automatic ESP Adjustment**

Allow automatic setting of ESP level and ensure matching the corresponding fan speed according to the identified external static pressure and achieve rated airflow within 10% range.

(setting via Service Menu in wired remote controller during commissioning)

#### **Quiet Operation**

The well-balanced centrifugal fan provides a quiet and efficient operation.

# Indoor units DUCTED | HSP DUCTED

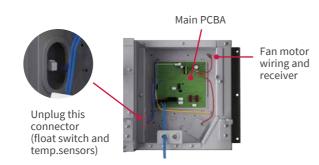
#### **High Performance**

Enhanced efficiency DC fan motor paired with a powerful centrifugal fan for high airflow delivery.

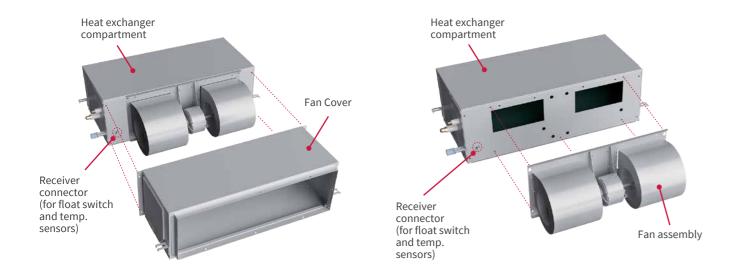
#### **HESP Ducted Indoor Units**

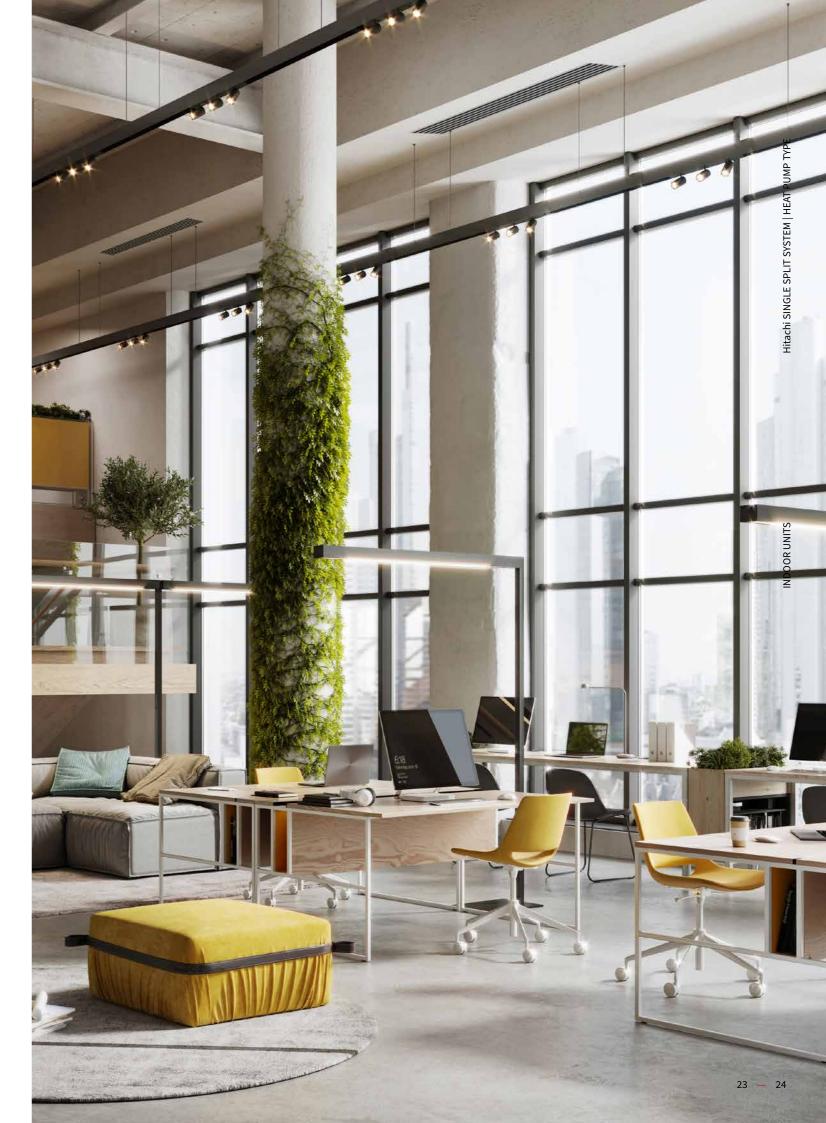
**airCore 700** high-ESP ducted indoor units are designed to be easily separable. The fan cover can be effortlessly removed from the heat exchanger compartment and reassembled with just a simple "one click" mechanism.

These units come equipped with a receiver connector for a float switch and temperature sensor. By unplugging the connector, the main PCBA, fan motor wiring, and receiver become easily accessible for connection.



This disassembled design offers an ideal solution for installations in crowded or confined spaces, such as rooftop attics, as well as narrow and elongated spaces. It greatly facilitates the delivery and installation process, making it more convenient and feasible.





## **Indoor units CASSETTE | LINEUP**

#### **4-WAY CASSETTE**

#### **Standard Panel**

PCI-2.0UFA1NQ PCI-2.5UFA1NQ PCI-3.0UFA1NQ







#### **4-WAY CASSETTE**

#### Silent Iconic Panel (optional)

Silent Iconic Panel (White, Elevating Grille)









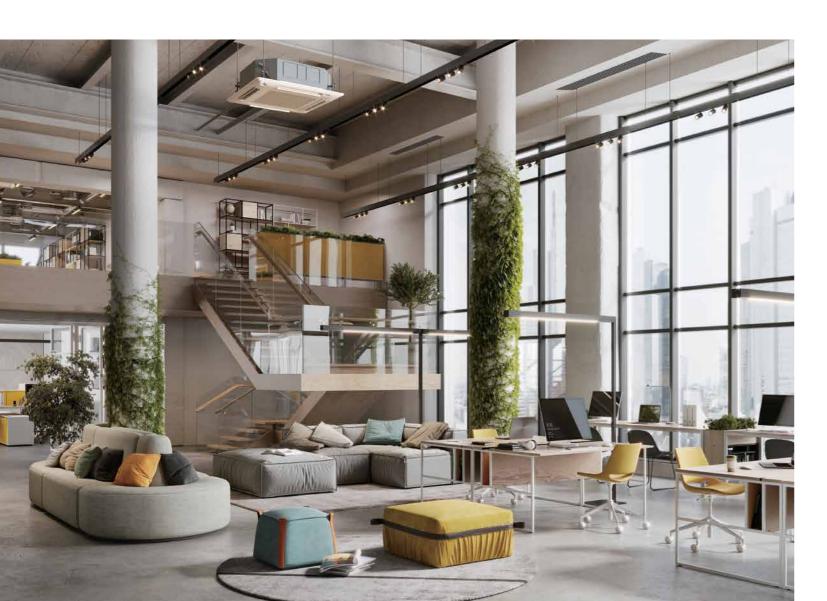


#### 4-WAY CASSETTE

#### **Human Sensor Panel (optional)**



P-AP160NAE2\*EX (Standard with Human Sensor Panel)

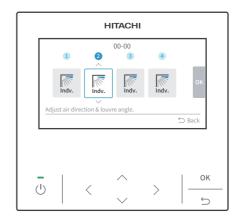


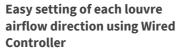
## **Indoor units**

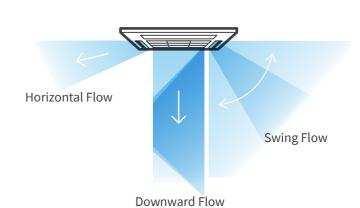
### **CASSETTE | 4-WAY CASSETTE, STANDARD**

#### Airflow can be controlled by adjusting four louvre individually

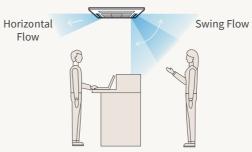
A comfortable air-conditioned environment can be achieved through various louver settings, which are available when combined with the wired controller. Air conditioning comfort is enhanced by using a louvre control function to adjust louvres individually for better control of airflow direction. One option adjusts the louvre horizontally to prevent direct airflow towards individuals, while another option provides individual swing operation to ensure optimal airflow distribution.

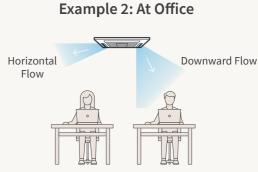






## The airflow direction can be selected according to the situation. Example 1: At Front Desk







## Silent-Iconic<sup>™</sup>

4-way Cassette Design Panel

A cassette panel that offers design integration as discreet as a more expensive ducted system



#### A new option

#### "Silent-Iconic"

Designed to match the interior, in harmony with the space. Compared with the ceiling-duct-type, the installation cost can be reduced.





#### **Ceiling Mounted Duct Type**

Using this type, you can create a sense of luxury without being noticeable, but its construction costs are relatively high.



or

#### 4-way Cassette type

Although the installation cost can be reduced, it may be difficult to match with the surrounding space due to the large presence of the indoor unit.





## The design is well-matched to the space

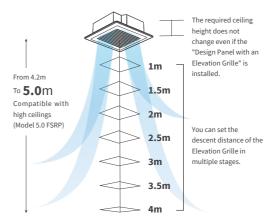
It is designed to harmonize with the space by using a discrete low-profile air grille and darkening the contact space between the grille and the unit frame.





#### It is easy to clean the filter

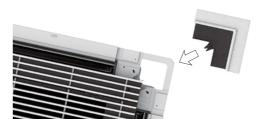
It is easy to clean the filter by using the selecting the option with the elevation grille which enables the air grille to be lowered to floor level for cleaning through the use of a powered motor.





#### It is easy to install

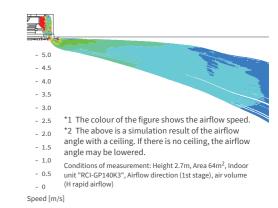
The sliding corners make it easier to fasten the panel to the ceiling surface using screws.





#### Indirect airflow option

Using the compatible controller and motion sensor kit, users may select from direct or indirect airflow: indirect airflow detects the presence of people in the space and directs airflow around them so they do not directly feel the airflow.





#### Connection with ceiling surface

By using a low-profile frame connected to the ceiling, the unit is less visible, and harmonization with the ceiling surface is further enhanced.



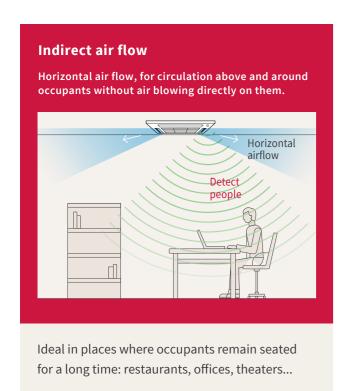
Silent-Iconic 4-way Cassette Design Panel

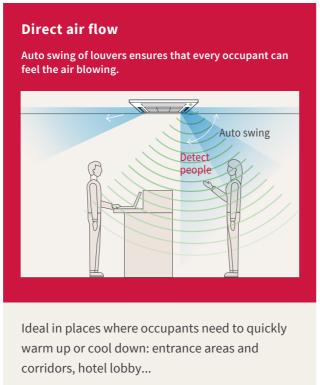


#### Let occupants choose whether they want to directly feel airflow

The presence of occupants is detected through a motion sensor which divides the room into 4 zones – one for each louvre. For each of the 4 zones served by a cassette, air can be served either Direct or Indirect. Therefore one zone could receive direct airflow while another has indirect airflow, catering for different personal preferences of people occupying the same area.

- Choose Direct air flow: the Twin-Sense cassette will target the corners with human activity.
- · Choose Indirect air flow: Twin-Sense cassette will avoid the corners where occupants are detected.





When room vacancy is detected, the air is directed in the way the controller (PC-ARFG) is set up. (Note) 4-zone motion sensor may not be effective in the following cases:

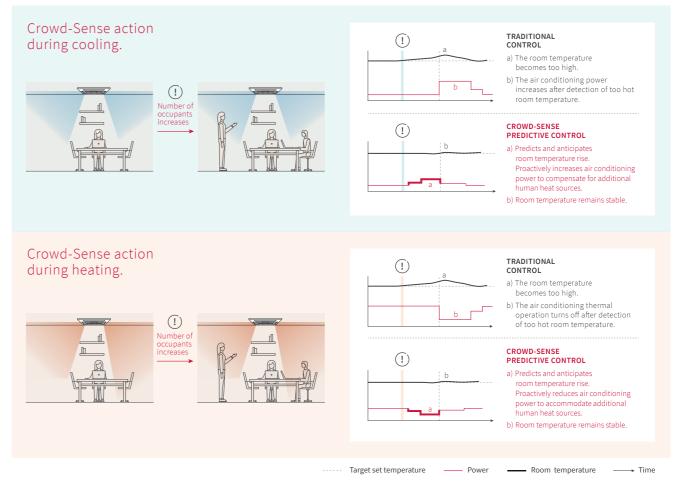
- $\cdot$  If the room is occupied but the movement is minimal, the system might consider the room as vacant.
- · If an object with a temperature different to the surrounding is in motion, it might be considered as human presence

#### Occupancy sensing technology

With **CrowdSense** technology, select units can determine how many people are in a space and adjust the cooling or heating capacity accordingly, so the room will never get too hot or cold, whether it's crowded or almost empty.

- Hitachi Twin-Sense cassette detects the crowd's arrival or departure.
- · Using AI, the cassette can anticipate the addition or reduction of human heat sources and immediately adjusts the air conditioning accordingly.

Requires optional motion sensor kit available for many Cassette and Ceiling Suspended models



- Crowd-Sense may not be effective of might be tess effective in the following with the same zone.

   Multiple indoor units are in operation in the same zone.

   The difference between the radiant temperature of the room (floor and walls) and the radiant temperature of the human body is minimal.

   The room temperature is high before operation.

   During the heating process, when the number of occupants decreases.

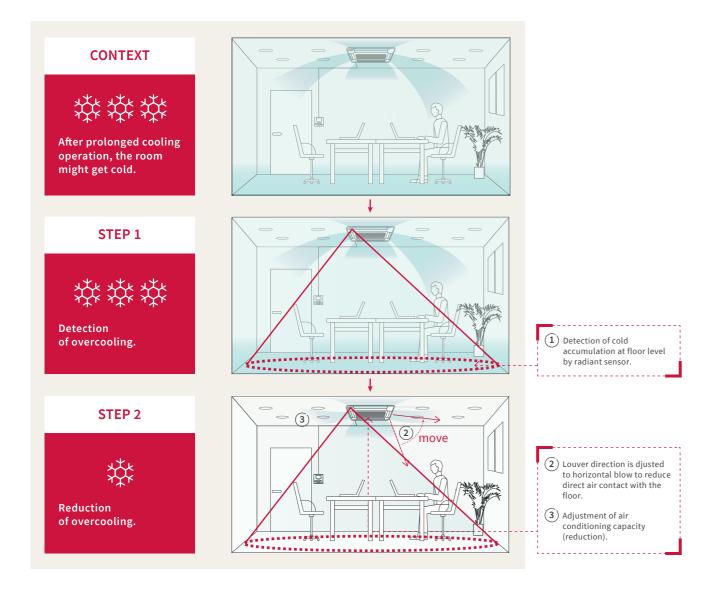
## **Indoor units**

## **CASSETTE | HUMAN SENSOR PANEL (OPTIONAL)**

#### No more cold feet

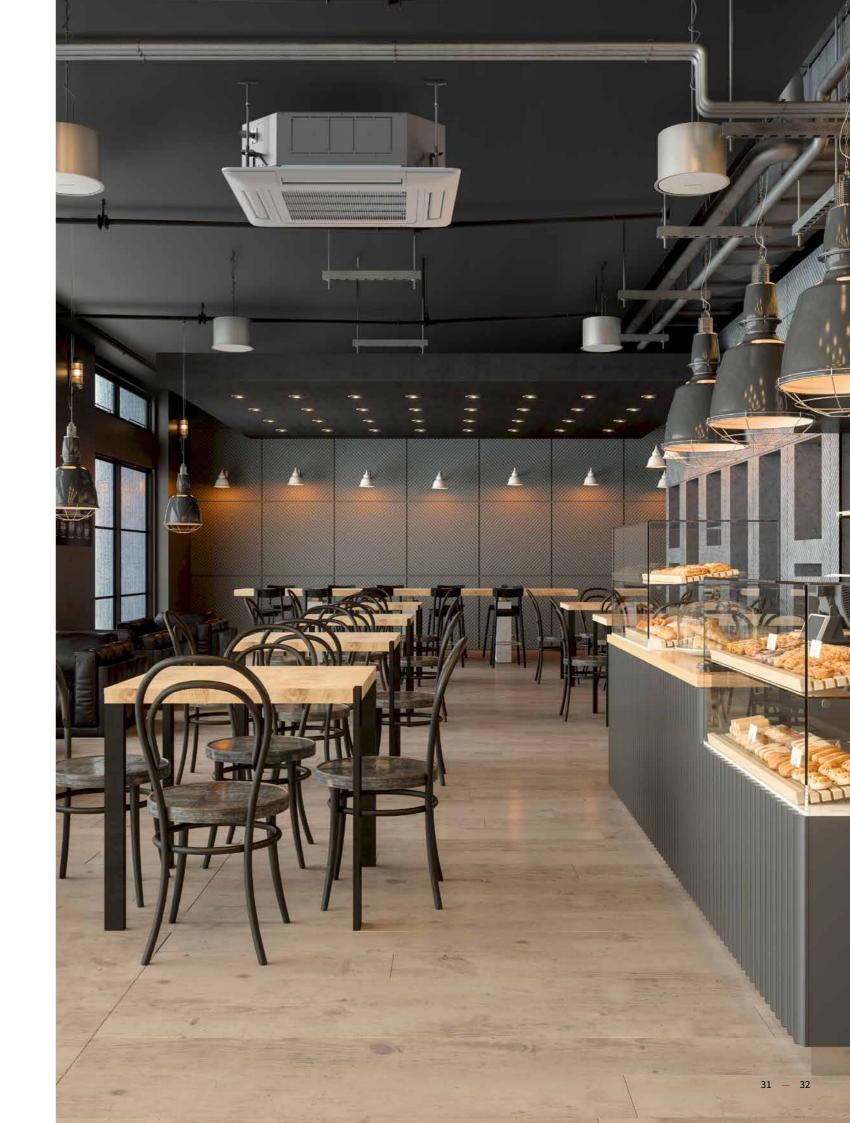
In cooling scenarios, **FloorSense Cool**<sup>1</sup> can prevent the floor area from overcooling by controlling airflow and cooling capacity so that the air at floor level does not get as cool as air above knee height.

\*1 Available on select Cassette models. Requires optional cassette panel with Motion Sensor & Radiant Temperature Sensor.



#### **Compact Design**

With a unit height of 238~288mm, easy for installation in tight clearance spaces.



# **Indoor units CASSETTE | HUMAN SENSOR PANEL (OPTIONAL)**

#### FeetWarm (for heating operation) - head to toe comfort during winter

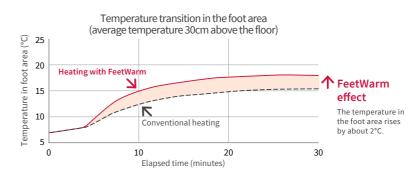
Effect of FeetWarm - Step 1.

Temperature distribution around the area of the feet (30min after air

conditioning heating operation starts).

In room heating scenarios, it's common to hear users complain of cold feet because heat naturally rises. FeetWarm helps to solve this problem by optimizing airflow in heating mode to ensure that the leg zone is consistently heated.

 $A vailable \ on select \ Cassette \ models. \ Requires \ optional \ cassette \ panel \ with \ Motion \ Sensor \ \& \ Radiant \ Temperature \ Sensor.$ 



#### FeetWarm's boasts 4 intelligent features:

- Thanks to the Twin-Sense radiant sensor, it can detect heat stratification effects inside the room, which usually cause the floor
- A 2-step action to first create consistent warmth, then to maintain it.
- Advanced heat air flow optimization, by sophisticated control of the 4-way cassette's individual louvers.
- The lower levels of the room (floor level, feet level, leg level) reach desired temperatures, for total comfort,

## How does it work? Step 1. Alternately repeats every 3 minutes (1) The radiant sensor detects a temperature drop in the floor and around your feet. (2) The cassette partially closes two louvers automatically. 3 The air flow strengthens through the two remaining open louvres, and targets the floor to warm it up quickly\*1. (4) Louvre opening alternate every three minutes from wide open to partially closed to cover a wider floor area. (5) As louvre openings close, suction increases in the central inlet grill for a faster warming effect. \*1 Caution: when the indoor unit changes to heating, the sudden change in air flow might cause occupants to feel a cold draft sensation.

#### Heating with FeetWarm Conventional heating About 2°C rise Feet warm up more auickly! Average temperature 30cm above the floor = 17.9°C Average temperature 30cm above the floor = 15.4°C [Image based on calculation results]

Step 2. (1) When the radiant temperature sensor detects that the lower level is no longer cold, FeetWarm shifts to its second step for a more even temperature everywhere in the room. (2) One louvre remains closed. (3) Three remaining open louvres follow Auto-Swing air flow direction, continuously moving up/down. This leads to faster circulation of the warm air in all areas of (4) Suction of colder air remains facilitated

#### Effect of FeetWarm - Step 2.

thanks to the one partially closed louvre.

Temperature distribution around the area of the feet (30min after air conditioning heating operation starts).

FeetWarm: Step 1 (end) FeetWarm Step 2 (after 20min) Twin-Sense cassette Warm and even

[Measurement condition Based on Hitachi research].

See simulation result under the following conditions above. Unit capacity: 8.0kW, room size: "height 3.2m, length 6.3m, width 6.3m, indoor initial temperature: 7°C, outdoor temperature: 7°C, indoor airflow temperature: 30°C for 0-5 minutes, Gradually rise from 30°C to 40°C after 5 minutes, Multi-function remote control setting: Airflow heat control "effective / long". (Note) The effect varies depending on the size of the room and the load.



# Indoor units CEILING SUSPENDED

Lineup





PPFC-2.0UFA1NQ PPFC-2.5UFA1NQ

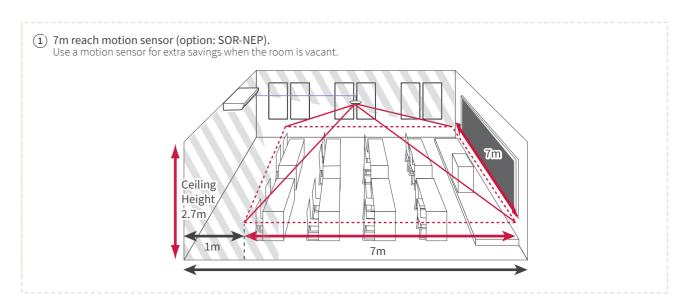


7.2kW, 10.0kW, 12.5kW, 14.0kW

PPFC-3.0UFA1NQ PPFC-4.0UFA1NQ PPFC-5.0UFA1NQ PPFC-6.0UFA1NQ

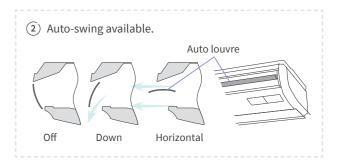
#### **Motion Sensor (Optional)**

The ceiling suspended indoor unit is designed to be compatible with an optional motion sensor device. With a sensor distance of up to 7m, this unit can detect occupancy in the room and automatically control the AC, turning it on or off accordingly. By avoiding unnecessary operation when the room is unoccupied, this feature contributes to energy conservation and helps reduce electric bills.



#### **Auto-swing**

The ceiling suspended unit offers an auto-swing function. The louvres are capable of horizontal auto-swing, allowing them to move from side to side or be set to a stationary position. This feature ensures that the cooling flow is evenly distributed to every corner of the room, providing exceptional comfort without any worries.



## **Controllers & Apps**

[wk] kWh Power Consumption Mon PM05-20 1000 Mon Tue Wed Thu Fri Sat Sun

OK List 🚯 2w ago 🖟 Adjust

- 37 | Controllers
  - 38 | Wired Remote Controller (WRC)
  - 39 | Hand-held Remote Control (HHRC)
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## **Controllers & Apps** INDIVIDUAL CONTROLLERS | WRC

#### airPoint Room 700 (PC-ARFG2-Z)













#### A new generation of room controllers with user friendly UX/UI

- · Colourful screen
- Award winning design
- Visual interface
- Simplified navigation
- Access to latest Hitachi features
- Optimised for installers too
- Special functions for Hotels

#### Backup System Setting



- · Rotation Operation
- Backup operation when abnormality occurs
- · Backup operation in high load
- Settings on the controller is quite simple

· Manually and automatic static pressure setting are supported, together with the traditional method of selecting from "Standard", "Hi Speed1", "Hi Speed2".

| Model                     | PC-ARFG2-Z  |
|---------------------------|---|
| Product Name              | airPoint Room 700   |
| Dimension(mm)             | W 120 × H 120* × D 16.5(thinnest part)<br>W 120× H 120* × D 21.5(thickest part) |
| Weight                    | 180g (Approx.)  |
| Installation Method       | Installed on the wall or switch box   |
| Power supply              | DC power supply from indoor Unit  |
| Temperature Condition     | 0~40°C(40-104°F)  |
| <b>Humidity Condition</b> | 35~90% (non-condensation)   |
| Embedded NFC              | Yes   |
|                           |   |

#### **Functions**

|                   | Simple Timer                                |
|-------------------|---|
|                   | Operation Schedule                          |
|                   | Power Saving Setting                        |
|                   | Night Quiet Operation                       |
|                   | Power Saving/Night Quiet Schedule           |
|                   | Power Consumption Display                   |
|                   | Autoboost                                   |
|                   | Comfort Setting                             |
| Function          | Motion Sensor Setting                       |
| menu              | Setback Setting                             |
|                   | Elevating Grille                            |
|                   | Reset Filter Reminder Time                  |
|                   | FrostWash Setting                           |
|                   | Individual Louver Setting                   |
|                   | Louver Open/Close                           |
|                   | Adjust Date/Time                            |
|                   | Run Indicator Brightness                    |
| _                 | Display Adjustment                          |
| Screen<br>Display | Temperature                                 |
| setting           | Language Setting                            |
|                   | Chinese (Simplified/Traditional), Japanese, |
|                   | English(°C/°F), French, Portuguese, Spanish |
|                   | Keypad Touch Sound                          |

|                | Lock Function                 |
|----------------|-------------------------------|
|                | Password Setting              |
|                | Hotel mode                    |
|                | Power Saving Detail Setting   |
| Service<br>and | Temperature Range Restriction |
| installation   | Dual Setpoint                 |
| menu /         | Main/Sub Display              |
| Service        | Set Room Name                 |
|                | Set Contact Information       |
|                | NFC Setting                   |
|                | Simple Maintenance            |
|                | Backup System Setting         |
|                | ESP Setting                   |
|                | Test Run                      |
|                | Function Selection            |
| Service<br>and | Input/Output                  |
| installation   | Thermistor Selection          |
| menu /         | Thermistor Calibration        |
| nstallation    | Fan Speed Thermo-Off          |
|                | Indoor Unit Address Change    |
|                | Address Check Operation       |
|                | Address Initialization        |

|                             | Setting Initialization    |
|-----------------------------|---------------------------|
| Service                     | Main Controller Setting   |
| and                         | Priority Setting          |
| installation                | Cancel Preheating Control |
| menu /                      | Elevating Grille Setting  |
| Installation                | Power Up Setting          |
|                             | Setback Trigger Unit      |
|                             | Check 1                   |
|                             | Check 2                   |
| Service and<br>installation | Alarm History Display     |
| menu / Check                | Display Model Number      |
|                             | Check PCB of the Units    |
|                             | Self Check                |
| Service and                 | Common Zone Setup         |
|                             | Zone Activation           |
| installation                | Zone Labeling             |
| menu /<br>Zone              | Nominate Spill Zone(s)    |
| Installation                | Sensor Assignment         |
| Menu                        | Airflow                   |
|                             | Minimum Airflow Ratio     |
|                             | Damper Timing             |
|                             | Turn On All Zones         |
|                             |                           |

# itachi SINGLE SPLIT SYSTEM | HEAT PUMP T

# CONTROLLERS & APP

## Controllers & Apps INDIVIDUAL CONTROLLERS | HHRC

#### PC-LH8QE

Dimensions: 180x48x22.15 mm Weight: 0.156 kg

#### Powerful, innovative & compact

- · Designed to embody a fresh and innovative appearance
- Modular concept and seamlessly integrated across the entire region
- Featuring an intuitive design and a cutting-edge segment display
- Featuring a larger LCD measuring 31x50 mm with backlight.
- Covering both basic and advanced features, including Run/Stop, Up/Down, Left/Right, Louver settings, Cooling/Heating, Dry, and Timer.

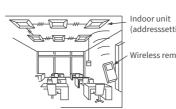




#### INDIVIDUAL CONTROLLERS | IR RECEIVER

#### **Simultaneous Control of Multiple Units**

One IR Receiver Kit can be used to control simultaneously a number of indoor units (up to 16 devices). When a number of indoor devices are installed in a large room, one single wireless remote controller can be used to run and stop all these devices.







NOTE:

When a number of units are under simultaneous control, all their indoor devices shall be placed in the same room. If using one wireless remote controller to control air conditioners in more than two rooms, it is possible to forget to close one

#### PC-ALHZ5Q, PC-ALH5Q

| Model                           | PC-ALHZ5Q                           | PC-ALH5Q                  |  |
|---------------------------------|-------------------------------------|---------------------------|--|
| Dimension(mm)                   | 120*90*28mm                         | 203*203*35.8mm            |  |
| Weight                          | 255g(Approx.)                       | 188g(Approx.)             |  |
| Product Name                    | Wireless R                          | eceiver Kit               |  |
| Installation Method             | Installed on the wall or switch box | Installed on<br>IDU panel |  |
| Power supply                    | DC power supply from indoor Unit    |                           |  |
| Max. Distance                   | RC-Link, 300m                       |                           |  |
| Max. number of connected indoor | 16                                  |                           |  |
| Temperature Condition           | 0~40°C(40-104°F)                    |                           |  |
| Humidity Condition              | 35~90% (non-condensation)           |                           |  |
|                                 |                                     |                           |  |

## NEW

- GVBL Decoration Film
- Powerful
- To raise or lower the temperature immediately in cooling & heating mode
- Slee
- A more comfortable environment for sleep
- Sleep time is fixed as 8 hours
- Auto FrostWash Enable/Disable

| Indoor Unit Type | Model Name  |                                  | IR receiver |
|------------------|---|----------------------------------|-------------|
| 4-Way Cassette   | PCI-2.0UFA1NQ<br>PCI-2.5UFA1NQ<br>PCI-3.0UFA1NQ<br>PCI-4.0UFA1NQ<br>PCI-5.0UFA1NQ<br>PCI-6.0UFA1NQ<br>PCI-6.5UFA1NQ |                                  | PC-ALH5Q    |
| Ducted           | PPIM-2.0UFA1NQ<br>PPIM-2.5UFA1NQ<br>PPIM-3.0UFA1NQ<br>PPIM-4.0UFA1NQ<br>PPIM-5.0UFA1NQ<br>PPIM-6.0UFA1NQ            | PPIH-5.0UFA1NQ<br>PPIH-6.0UFA1NQ | PC-ALHZ5Q   |
| Mini Cassette    | PCIM-B09UFA1DQ<br>PCIM-B12UFA1DQ  |                                  | PC-ALHC5Q   |

Limitation: when IR receiver works as Primary/secondary controller, it will disable backup system setting & ESP setting

## **Controllers & Apps**

## **APPS** | airCloud Go\*

Remotely control individual indoor units or premium zoning systems.





airCloud Go Connect your Hitachi air conditioners to airCloud Go via wifi.





#### Voice control

Connect with your smart speaker and set your indoor climate via voice control.





Amazon Echo

Turn the air conditioner on/off and set the desired temperature, fan speed and airflow direction.

Program your air conditioning operation with the Simple Timer and/or Weekly Timer.

Pair your account with unlimited air conditioners.

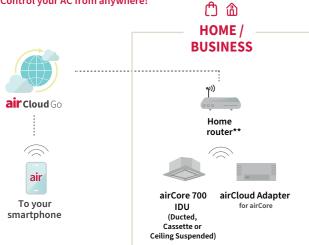
Invite up to 20 users to manage each air conditioner.



#### App available in 21 languages

English, French, Italian, Spanish, German, Portuguese (BR  $\&\, EU$ ), Dutch, Danish, Swedish, Thai, Chinese (Traditional & Simplified), Indonesia, Polish, Hungarian, Czech, Romanian, Greek, Croatian, Slovenian, Vietnamese, Malay

#### Control your AC from anywhere!



#### airCloud Adapter (GA-WFG)

Introducing the new airCloud Adapter, compatible with the airCloud Go App, enabling remote control of airCore 700 Ducted, Cassette and Ceiling Suspended systems



#### Ouick set up

QR code recognition enables you to pair your app to your air conditioner in an instant.









#### **APPS | airCloud Pro**

Your airCore700 could be controlled by airCloud Pro NOW.



airCloud Pro 24/7 control at your fingertips on smartphone app or web



Cloud-Based Control System with Dedicated App

#### A simple yet powerful tool.

#### ✓ Intuitive simplicity

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

#### √ Control from anywhere

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

#### **Functions:**

- · Basic control commands for Indoor Units: ON/OFF, mode, fan speed, temperature setting, RCS lock.
- · Simple weekly timer.

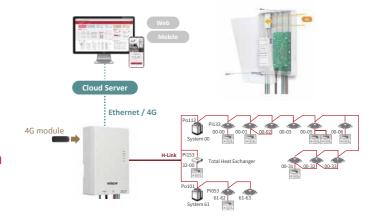
Available on the Available on the App Store

- · Alarm information on unit list.
- · General dashboard per installation, system summary, and global ON/OFF order to all IDUs.
- Management of several sites/gateways/users with dedicated views.
- Internet connection is mandatory for airCloud Pro: This is a cloud-based product.
- Ideal for customers managing multiple sites.
- · Multiple users can be created with imultaneous connection to the installation.

#### **Specifications**

|                      | IDU Per gateway                      | 80 IDUs                            |
|----------------------|--------------------------------------|------------------------------------|
| Gateway Specs        | ODU Per gateway                      | 16                                 |
|                      | Device per H-LINK                    | 1                                  |
| Cloud Access         |                                      | Yes                                |
| Web App              |                                      | Yes                                |
| Mobile App           |                                      | Yes                                |
| Commontivity         | Primary Connectivity Ethernet        | Ethernet                           |
| Connectivity         | 4G Connectivity                      | Optional                           |
|                      | Local Access                         | Yes (Backup with limited features) |
| Access to System     | Remote Access                        | Yes                                |
| Access to System     | Server Type                          | Cloud                              |
| Man                  | <b>Mandatory Internet Connection</b> | Yes                                |
| User & Site Managem  | nent                                 | Yes                                |
| Installation Dashboa | rd                                   | Yes                                |
| App Languages        |                                      | Supports multiple languages        |
|                      |                                      |                                    |

#### System configuration





Google Play

\*airCloud Go SmartFence & energy monitoring not available with airCore 700

- H-LINK

## **Controllers & Apps APPS | airCloud Tap**

Convenient tools for quick installation and service.



airCloud Tap (NFC) for using with PC-ARFG2-Z

#### Improved serviceability with airCloud Tap

"airCloud Tap" is used setting the controller from smartphone easily.

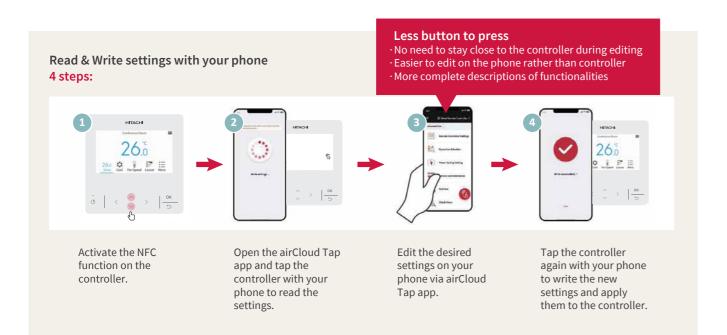
(NFC feature on PC-ARFG2-Z is disabled when connected with Zone interface box.)

To download the "airCloud Tap" application, search for it on the "App Store" \*1 or "Google Play"\*2. Alternatively, you can scan the code provided below with your smartphone to directly access the

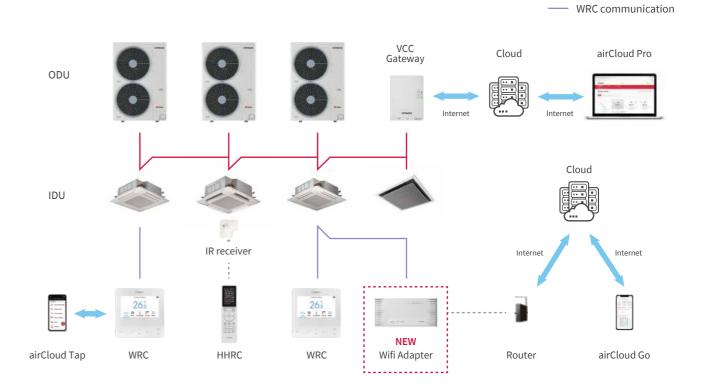


- \*1 App Store® is a service mark of Apple Inc.
- \*2 Google Play and the Google Play logo are trademarks of Google LLC.





#### **APPS | UNIT COMPATIBLE**



#### Wifi Adapter



- · ABS plastic housing.
- Configuration: AP and WPS.
- Operating temperature: 5°C to 35°C.
- · Operating humidity: between 35% and 90%.
- · Index protection rating IP30.
- · Pollution category: Class 2.
- Dimensions (l × w × h): 105 × 46 × 20 mm.
- · Wireless LAN standard: IEEE 802.11b/g/n.
- · Frequency used and maximum power used: 2.4000 GHz 2.4835 GHz/erp < 100 mW.
- · Power supply: 15V 110mA DC
- Integrated antenna.

| Indoor Unit Type   | Model Name                       | IR receiver   |
|--------------------|----------------------------------|---------------|
| Cassette           | PCI-2.0UFA1NQ                    |               |
|                    | PCI-2.5UFA1NQ                    |               |
|                    | PCI-3.0UFA1NQ                    | DC 411150     |
|                    | PCI-4.0UFA1NQ                    | PC-ALH5Q      |
|                    | PCI-5.0UFA1NQ<br>PCI-6.0UFA1NO   |               |
|                    | PCI-6.5UFA1NQ                    |               |
| Calling Common ded |                                  |               |
| Ceiling Suspended  | PPFC-2.0UFA1NQ                   |               |
|                    | PPFC-2.5UFA1NQ                   |               |
|                    | PPFC-3.0UFA1NQ<br>PPFC-4.0UFA1NO | (Built-in IR) |
|                    | PPFC-5.0UFA1NO                   |               |
|                    | PPFC-6.0UFA1NQ                   |               |
| MSP Ducted         | PPIM-2.0UFA1NQ                   |               |
| MSI Ducteu         | PPIM-2.5UFA1NQ                   |               |
|                    | PPIM-3.0UFA1NQ                   | PC-ALHZ5Q     |
|                    | PPIM-4.0UFA1NO                   | PC-ALIIZOQ    |
|                    | PPIM-5.0UFA1NQ                   |               |
|                    | PPIM-6.0UFA1NQ                   |               |
| HSP Ducted         | PPIH-3.0UFA1NQ                   |               |
|                    | PPIH-4.0UFA1NQ                   |               |
|                    | PPIH-5.0UFA1NQ                   | PC-ALHZ5Q     |
|                    | PPIH-6.0UFA1NQ                   |               |
|                    | PPIH-6.5UFA1NQ                   |               |

## **Controllers & Apps CONNECT TO BMS**



#### **BMS ADAPTER for BACnet®**

CONTROL UP TO 64 INDOOR UNITS

#### **General Functions**

- · Run / Stop
- · Operation Mode
- · Temperature Setting / Status
- · Fan Speed
- · Filter Sign / Reset
- · Prohibited / Permitted RC Operation
- · Indoor Air Intake Temperature (IDU Inlet Temp)
- · Communication State
- · Alarm Signal
- · Alarm Code

#### **Hardware Specifications**

| Upper-level communication<br>(BMS Side / BMS Protocol) | BACnet IP Control   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| Lower-level communication (AC side)                    | H-Link II   |  |  |  |  |  |
| Central Controller used together with the same H-Link  | Up to 4 units can be<br>used in combination<br>with BACnet adapter<br>(CC: PSC -A16RS,<br>PSC - A64S, PSC -A64GT) |  |  |  |  |  |
| Dimensions (H x W x D)                                 | 68mm x 204mm x 154mm  |  |  |  |  |  |
| Weight   | 1.4kg   |  |  |  |  |  |
| Power  | AC 220-240V 50/60Hz   |  |  |  |  |  |

Note: Two BACnet adapters cannot be used together. Note: BACnet adapter cannot be used with Central Controller EX.



#### **BMS ADAPTER for LonWork®**

CONTROL UP TO 64 / 32 / 16 RCG (Remote Control Group)

HC - A64LNP offers various control/monitor modes:

- · Standard (64 RCG)
- · Option A (64 RCG)
- · Option B (32 RCG)
- · Option C (16 RCG)

Each mode has different control/monitor points and RCG configurations.

#### **General Functions**

- · Run / Stop
- · Operation Mode
- · Temperature Setting / Status
- · Fan Speed
- · Louver Setting
- · Prohibited / Permitted RC Operation
- · Filter Sign / Reset
- · Alarm Code
- · Thermo Status

#### **Hardware Specifications**

| Upper-level communication<br>(BMS Side / BMS Protocol)      | LonTalk  |
|---|--|
| Lower-level communication (AC side)                         | H-Link II  |
| Central Controller<br>used together with<br>the same H-Link | EZ, Mini (Either EZ or Mini)                                 |
| Number of adapters<br>used together with<br>the same H-Link | Standard - 1<br>Option A - 1<br>Option B - 2<br>Option C - 4 |
| Dimensions (H x W x D)                                      | ** 92mm x 110mm x 124mn                                      |
| Weight  | 670g   |
| Power   | AC 220-240V 50/60Hz  |

#### **HLINK INTEGRATION**

#### **Enjoy more freedom**

#### What is H-LINK?

H-LINK is Hitachi Cooling & Heating's unique communication system for centralised control of VRF (Variable Refrigerant Flow) systems. Now, the airCore700, a large single split system, can connect directly to a Hitachi VRF system, enabling centralised controls.

H-LINK simplifies commissioning and service maintenance for installers and service engineers. It also offers remarkable versatility to building owners and occupants by enabling various central control options, resulting in improved system management.

Our advanced communication system streamlines the connection of control wiring between indoor and outdoor units, while also empowering a central control system to manage indoor/outdoor units across multiple refrigerant systems.

#### **Examples**



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





Can connect with various types of Hitachi air conditioning products, including VRF for centralised controls.

No adapter Simple connection to terminal blocks

#### **Centralized Controls: Flexible Wiring Route!**

- (1) Multiple refrigerant systems located in one area.
  - Central monitoring room in separate area.

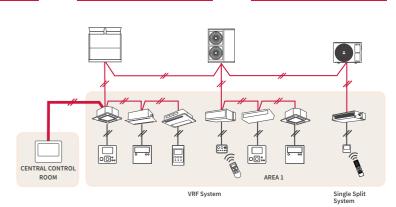
#### H-LINK SOLUTION

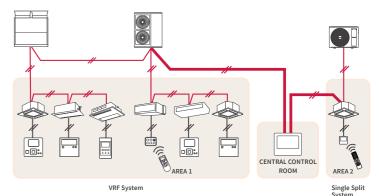
- → Wire the central station to the closest indoor unit.
- → Wiring distance is reduced substantially.
- → Single split system (airCore700) could integrate with VRF system and connect to centralised controls seamlessly

(2) • One single split system is located in another separate area.

#### **H-LINK SOLUTION**

- → Connect the farthest refrigerant system directly to central station either to outdoor units or indoor units.
- → The central station can make the central link between the different refrigerant systems.





# **Specifications**MSP DUCTED



| DU                    |   |         | PPIM-2.0UFA1NQ             | PPIM-2.5UFA1NQ             | PPIM-3.0UFA1NQ             | PPIM-4.0UFA1NQ             | PPIM-4.0UFA1NQ             | PPIM-5.0UFA1NQ             | PPIM-5.0UFA1NQ             | PPIM-6.0UFA1NQ             | PPIM-6.0UFA1NQ            |
|-----------------------|---|---------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------|
| DU                    |   |         | PAS-2.0UFASNQ1             | PAS-2.5UFASNQ1             | PAS-3.0UFASNQ1             | PAS-4.0UFASNQ1             | PAS-4.0UFASMQ1             | PAS-5.0UFASNQ1             | PAS-5.0UFASMQ1             | PAS-6.0UFASNQ1             | PAS-6.0UFASMQ1            |
| wer supply (Inc       | door)   | V/Ph/Hz | 220~240V / 1Ø / 50Hz       | 220~240V / 1Ø / 50Hz      |
| wer supply (Ou        | itdoor)   | V/Ph/Hz | 220~240V / 1Ø / 50Hz       | 380~415V / 3Ø / 50Hz       | 220~240V / 1Ø / 50Hz       | 380~415V / 3Ø / 50Hz       | 220~240V / 1Ø / 50Hz       | 380~415V / 3Ø / 50Hz      |
| x. power input        |   | kW      | 3.08                       | 3.08                       | 3.52                       | 5.5                        | 5.5                        | 6.0                        | 6.0                        | 6.27                       | 6.27                      |
| x. current inpu       | t   | А       | 14.0                       | 14.0                       | 16.0                       | 25.0                       | 12.0                       | 27.3                       | 12.0                       | 28.5                       | 12.0                      |
| oling                 | Rated Capacity                                  | kW      | 5.0                        | 6.0                        | 7.2                        | 10.0                       | 10.0                       | 12.5                       | 12.5                       | 14.0                       | 14.0                      |
| Julig                 | Capacity Range[Min~Max]                         | kW      | 1.5~6.0                    | 1.5~7.5                    | 2.5~8.6                    | 3.2~12.0                   | 3.2~12.0                   | 4.0~14.2                   | 4.0~14.2                   | 5.0~16.0                   | 5.0~16.0                  |
| Heating               | Rated Capacity                                  | kW      | 6.0                        | 7.5                        | 8.6                        | 11.5                       | 11.5                       | 14.0                       | 14.0                       | 16.0                       | 16.0                      |
| 20116                 | Capacity Range[Min~Max]                         | kW      | 1.5~7.5                    | 1.5~9.0                    | 3.5~10.4                   | 3.5~14.0                   | 3.5~14.0                   | 4.0~16.2                   | 4.0~16.2                   | 5.5~18.0                   | 5.5~18.0                  |
| wer .                 | Cooling   | kW      | 1.28                       | 1.58                       | 1.85                       | 2.43                       | 2.67                       | 3.29                       | 3.29                       | 4.18                       | 4.18                      |
| msumption             | Heating   | kW      | 1.45                       | 2.06                       | 1.95                       | 2.88                       | 2.88                       | 3.59                       | 3.59                       | 4.32                       | 4.32                      |
| R                     | Cooling   |         | 3.82                       | 3.73                       | 3.83                       | 4.03                       | 3.65                       | 3.74                       | 3.71                       | 3.31                       | 3.29                      |
| OP                    | Heating   |         | 4.05                       | 3.59                       | 4.34                       | 3.92                       | 3.90                       | 3.85                       | 3.82                       | 3.66                       | 3.64                      |
| SPF(Cooling)          | Hot   |         | 5.55/5.14                  | 5.43/5.03                  | 5.43/5.05                  | 5.46/5.09                  | 5.08/4.71                  | 5.60/5.20                  | 5.44/5.03                  | 5.13/4.75                  | 5.05/4.66                 |
| mmercial<br>sidential | Average   |         | 5.51/4.51                  | 5.44/4.50                  | 5.44/4.57                  | 5.40/4.54                  | 5.02/4.12                  | 5.63/4.69                  | 5.41/4.43                  | 5.23/4.34                  | 5.11/4.19                 |
| Sideritiat            | Cold  |         | 5.82/4.57                  | 5.77/4.58                  | 5.76/4.66                  | 5.69/4.58                  | 5.28/4.12                  | 6.00/4.83                  | 5.73/4.50                  | 5.61/4.51                  | 5.45/4.31                 |
| PF(Heating)           | Hot   |         | 5.00/5.00                  | 4.77/4.76                  | 5.17/5.17                  | 5.17/5.16                  | 4.93/4.92                  | 5.06/5.04                  | 4.94/4.93                  | 4.79/4.78                  | 4.75/4.73                 |
| mmercial<br>sidential | Average   |         | 4.62/4.35                  | 4.20/4.06                  | 4.56/4.10                  | 4.13/3.85                  | 4.31/3.84                  | 4.45/4.29                  | 4.37/4.23                  | 4.40/4.13                  | 4.16/3.72                 |
| Sidential             | Cold  |         | 3.91/3.67                  | 3.68/3.44                  | 3.77/3.42                  | 3.56/3.16                  | 3.56/3.22                  | 3.86/3.59                  | 3.81/3.56                  | 3.74/3.51                  | 3.45/3.14                 |
|                       | External Static Pressure-Range                  | Pa      | 35~185                     | 35~185                     | 35~185                     | 50~200                     | 50~200                     | 60~210                     | 60~210                     | 60~215                     | 60~215                    |
|                       | Fan Motor Output                                | W       | 250                        | 250                        | 250                        | 375                        | 375                        | 375                        | 375                        | 375                        | 375                       |
|                       | Air Flow[Hi2/Hi1/Hi/Med/Lo/SLo]                 | L/s     | 350/320/280/200/180/160    | 350/320/280/200/180/160    | 500/470/430/350/320/290    | 630/575/500/450/390/350    | 630/575/500/450/390/350    | 680/630/580/450/400/360    | 680/630/580/450/400/360    | 730/685/620/510/475/410    | 730/685/620/510/475/410   |
| oor Unit              | Sound Pressure Level<br>[Hi2/Hi1/Hi/Med/Lo/SLo] | dB[A]   | 39/36/34/30/24/21.5        | 39/36/34/30/24/21.5        | 38/36/34/31/26/24          | 41/39/36/34/30/27          | 41/39/36/34/30/27          | 43/40/38/36/30/28          | 43/40/38/36/30/28          | 45/44/40/38/35/32          | 45/44/40/38/35/32         |
| oor onit              | Sound Power Level                               | dB[A]   | 49                         | 49                         | 49                         | 53                         | 53                         | 54                         | 54                         | 56                         | 56                        |
|                       | Dimension [W×H×D]                               | mm      | 900(+75)×270×720           | 900(+75)×270×720           | 1100(+75)×300×800          | 1400(+75)×300×800          | 1400(+75)×300×800          | 1400(+75)×300×800          | 1400(+75)×300×800          | 1400(+75)×300×800          | 1400(+75)×300×800         |
|                       | Supply Air Spigot [W×H]                         | mm      | 834x140                    | 834x140                    | 1038x197                   | 1338x197                   | 1338x197                   | 1338×197                   | 1338x197                   | 1338x197                   | 1338x197                  |
|                       | Return Air Spigot [W×H]                         | mm      | 857x227                    | 857x227                    | 1049x258                   | 1350x258                   | 1350x258                   | 1350x258                   | 1350x258                   | 1350x258                   | 1350x258                  |
|                       | Packing [W×H×D]                                 | mm      | 1150×380×875               | 1150×380×875               | 1350×410×955               | 1650×410×955               | 1650×410×955               | 1650×410×955               | 1650×410×955               | 1650×410×955               | 1650×410×955              |
|                       | Net/Gross Weight                                | kg      | 30/36                      | 30/36                      | 40/47                      | 48/56                      | 48/56                      | 48/56                      | 48/56                      | 48/56                      | 48/56                     |
|                       | Drainage water pipe diameter                    | mm      | VP25                       | VP25                      |
|                       | C   | Туре    | KTN150D42UFZD              | KTN150D42UFZD              | KTM240D43UKT               | ATH356SKRC9EQ              | ATH356SKRC9EQ              | ATH356SKRC9EQ              | ATH356SKRC9EQ              | ATH356SKRC9EQ              | ATH356SKRC9EQ             |
|                       | Compressor                                      | R.L.A   | 7.7                        | 7.7                        | 9.3                        | 11.5                       | 11.5                       | 11.5                       | 11.5                       | 11.5                       | 11.5                      |
|                       | Fan Motor                                       | F.L.A   | 0.34                       | 0.34                       | 0.34                       | 0.62                       | 0.62                       | 0.62                       | 0.62                       | 0.62                       | 0.62                      |
|                       | Fan Motor Output                                | W       | 80                         | 80                         | 80                         | 138                        | 138                        | 138                        | 138                        | 138                        | 138                       |
|                       | Air Flow  | m³/h    | 3290                       | 3290                       | 3290                       | 4800                       | 4800                       | 8200                       | 8200                       | 8200                       | 8200                      |
|                       | Sound Pressure Level-Cooling                    | dB[A]   | 53                         | 53                         | 53                         | 56                         | 56                         | 56                         | 56                         | 56                         | 56                        |
| ıtdoor Unit           | Sound Pressure Level-Heating                    | dB[A]   | 54                         | 54                         | 54                         | 57                         | 57                         | 57                         | 57                         | 57                         | 57                        |
|                       | Sound Pressure Level-Night                      | dB[A]   | 51                         | 51                         | 51                         | 54                         | 54                         | 54                         | 54                         | 54                         | 54                        |
|                       | Sound Power Level                               | dB[A]   | 66                         | 67                         | 70                         | 71                         | 71                         | 72                         | 72                         | 73                         | 73                        |
|                       | Throttle Type                                   |         | Electronic Expansion Value | Electronic Expansion Valu |
|                       | Dimension [W×H×D]                               | mm      | 900×665×320                | 900×665×320                | 900×665×320                | 950×990×320                | 950×990×320                | 950×1380×320               | 950×1380×320               | 950×1380×320               | 950×1380×320              |
|                       | Packing [W×H×D]                                 | mm      | 1056×717×427               | 1056×717×427               | 1056×717×427               | 1070×1120×470              | 1070×1120×470              | 1070×1520×470              | 1070×1520×470              | 1070×1520×470              | 1070×1520×470             |
|                       | Net/Gross Weight                                | kg      | 42.0/45.5                  | 42.0/45.5                  | 44.0/48.0                  | 86.5/100.5                 | 86.5/100.5                 | 98.5/109.0                 | 98.5/109.0                 | 108.0/118.5                | 108.0/118.5               |
|                       | Туре  |         | R32                        | R32                       |
| rigerant type         | Charge  | kg      | 1.2                        | 1.2                        | 1.4                        | 3.0                        | 3.0                        | 3.1                        | 3.1                        | 3.4                        | 3.4                       |
| antity                | GWP   |         | 675                        | 675                        | 675                        | 675                        | 675                        | 675                        | 675                        | 675                        | 675                       |
| gn pressure           |   | MPa     | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                 |
|                       | Liquid side/Gas side                            | mm      | Φ6.35/Φ12.7                | Φ6.35/Φ12.7                | Φ6.35/Φ12.7                | Φ9.52/Φ15.88               | Φ9.52/Φ15.88               | Φ9.52/Φ15.88               | Φ9.52/Φ15.88               | Φ9.52/Φ15.88               | Φ9.52/Φ15.88              |
| Refrigerant pipe      | Max. pipe length                                | m       | 50                         | 50                         | 75                         | 75                         | 75                         | 75                         | 75                         | 75                         | 75                        |
| rigerant pipe         |   | m       | 30                         | 30                         | 30                         | 30                         | 30                         | 30                         | 30                         | 30                         | 30                        |
| ingerant pipe         | Max. Height difference                          |         |                            |                            |                            |                            |                            |                            |                            |                            |                           |
| ingerant pipe         | Max. Height difference Add Refrigerant Amount   |         | 18                         | 18                         | 18                         | 35                         | 35                         | 35                         | 35                         | 35                         | 35                        |
| ingerant pipe         | Add Refrigerant Amount                          | g/m     | 18                         | 18                         | 18                         | 35                         | 35                         | 35                         | 35                         | 35                         | 35                        |
| aranteed              |   |         | 18<br>30<br>-5~52          | 18<br>30<br>-5~52          | 18<br>30<br>-5~52          | 35<br>30<br>-5-52          | 35<br>30<br>-5~52          | 35<br>30<br>-5~52          | 35<br>30<br>-5~52          | 35<br>30<br>-5~52          | 35<br>30<br>-5~52         |

# Specifications HSP DUCTED



| DU                        |  |                   | PPIH-3.0UFA1NQ             | PPIH-4.0UFA1NQ                        | PPIH-4.0UFA1NQ             | PPIH-5.0UFA1NQ                        | PPIH-5.0UFA1NQ             | PPIH-6.0UFA1NQ             | PPIH-6.0UFA1NQ             | PPIH-6.5UFA1NQ             | PPIH-6.5UFA1NQ           |
|---------------------------|--|-------------------|----------------------------|---------------------------------------|----------------------------|---------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--------------------------|
| DU                        |  |                   | PAS-3.0UFASNQ1             | PAS-4.0UFASNQ1                        | PAS-4.0UFASMQ1             | PAS-5.0UFASNQ1                        | PAS-5.0UFASMQ1             | PAS-6.0UFASNQ1             | PAS-6.0UFASMQ1             | PAS-6.5UFASNQ1             | PAS-6.5UFASMQ1           |
| wer supply (Indoor)       |  | V/Ph/Hz           | 220~240V / 1Ø / 50Hz       | 220~240V / 1Ø / 50Hz                  | 220~240V / 1Ø / 50Hz       | 220~240V / 1Ø / 50Hz                  | 220~240V / 1Ø / 50Hz       | 220~240V / 1Ø / 50Hz       | 220~240V / 1Ø / 50Hz       | 220~240V / 1Ø / 50Hz       | 220~240V / 1Ø / 50Hz     |
| wer supply (Outdoor)      |  | V/Ph/Hz           | 220~240V / 1Ø / 50Hz       | 220~240V / 1Ø / 50Hz                  | 380~415V / 3Ø / 50Hz       | 220~240V / 1Ø / 50Hz                  | 380~415V / 3Ø / 50Hz       | 220~240V / 1Ø / 50Hz       | 380~415V / 3Ø / 50Hz       | 220~240V / 1Ø / 50Hz       | 380~415V / 3Ø / 50Hz     |
| x. power input            |  | kW                | 3.52                       | 5.5                                   | 5.5                        | 6.0                                   | 6.0                        | 6.27                       | 6.27                       | 6.27                       | 6.27                     |
| x. current input          |  | Α                 | 16.0                       | 25.0                                  | 12.0                       | 27.3                                  | 12.0                       | 28.5                       | 12.0                       | 28.5                       | 12.0                     |
| oling                     | d Capacity                               | kW                | 7.2                        | 10.0                                  | 10.0                       | 12.5                                  | 12.5                       | 14.0                       | 14.0                       | 16.0                       | 16.0                     |
| Capac                     | acity Range[Min~Max]                     | kW                | 2.5~8.6                    | 3.2~12.0                              | 3.2~12.0                   | 4.0~14.2                              | 4.0~14.2                   | 5.0~16.0                   | 5.0~16.0                   | 6.0~18.0                   | 6.0~18.0                 |
| eating Rated              | d Capacity                               | kW                | 8.6                        | 12.5                                  | 12.5                       | 14.0                                  | 14.0                       | 16.5                       | 16.5                       | 18.0                       | 18.0                     |
| Capac                     | acity Range[Min~Max]                     | kW                | 3.5~10.4                   | 3.5~14.0                              | 3.5~14.0                   | 4.0~16.2                              | 4.0~16.2                   | 5.5~18.0                   | 5.5~18.0                   | 6.5~20.0                   | 6.5~20.0                 |
| wer Coolin                | ing                                      | kW                | 1.97                       | 2.63                                  | 2.63                       | 3.29                                  | 3.29                       | 3.78                       | 3.78                       | 4.93                       | 4.93                     |
| msumption Heatin          | ting                                     | kW                | 2.07                       | 3.20                                  | 3.20                       | 3.22                                  | 3.22                       | 3.98                       | 3.98                       | 4.62                       | 4.62                     |
| ER Coolin                 | ing                                      |                   | 3.60                       | 3.73                                  | 3.70                       | 3.74                                  | 3.72                       | 3.65                       | 3.64                       | 3.21                       | 3.20                     |
| OP Heatin                 | ing                                      |                   | 4.09                       | 3.85                                  | 3.82                       | 4.28                                  | 4.25                       | 4.09                       | 4.07                       | 3.85                       | 3.84                     |
| SPF(Cooling) Hot          |  |                   | 5.68/5.24                  | 5.39/5.01                             | 5.21/4.83                  | 5.54/5.14                             | 5.20/4.83                  | 4.96/4.65                  | 5.03/4.69                  | 4.79/4.46                  | 5.21/4.79                |
| nmercial Averag           |  |                   | 5.78/4.72                  | 5.37/4.47                             | 5.13/4.20                  | 5.58/4.65                             | 5.16/4.29                  | 4.96/4.26                  | 5.00/4.21                  | 4.87/4.12                  | 5.32/4.33                |
| Cold                      |  |                   | 6.19/4.89                  | 5.69/4.55                             | 5.40/4.22                  | 5.94/4.78                             | 5.44/4.34                  | 5.25/4.34                  | 5.28/4.27                  | 5.20/4.27                  | 5.72/4.51                |
| PF(Heating) Hot           |  |                   | 5.75/5.72                  | 4.54/4.54                             | 5.05/5.04                  | 4.77/4.78                             | 4.83/4.83                  | 4.58/4.59                  | 4.43/4.44                  | 4.56/4.56                  | 4.68/4.67                |
| mmercial Averagesidential |  |                   | 4.84/4.17                  | 4.01/3.60                             | 4.38/3.86                  | 4.30/4.22                             | 4.33/4.24                  | 4.12/3.76                  | 4.00/3.68                  | 4.05/3.66                  | 4.14/3.72                |
| Cold                      |  |                   | 3.84/3.37                  | 3.35/3.05                             | 3.58/3.22                  | 3.78/3.57                             | 3.80/3.57                  | 3.47/3.22                  | 3.40/3.16                  | 3.39/3.11                  | 3.45/3.15                |
|                           | rnal Static Pressure-Range               | Pa                | 35~270                     | 50~290                                | 50~290                     | 60~285                                | 60~285                     | 60~295                     | 60~295                     | 60~310                     | 60~310                   |
|                           | Motor Output                             | W                 | 375                        | 375                                   | 375                        | 750                                   | 750                        | 750                        | 750                        | 750                        | 750                      |
|                           | ow[Hi2/Hi1/Hi/Med/Lo/SLo]                | L/s               | 640/600/550/490/430/374    | 745/700/640/490/470/421               | 745/700/640/490/470/421    | 820/760/690/625/560/500               | 820/760/690/625/560/500    | 850/770/720/650/560/500    | 850/770/720/650/560/500    | 900/840/770/650/560/500    | 900/840/770/650/560/50   |
| oor Unit [Hi2/H           | nd Pressure Level<br>/Hi1/Hi/Med/Lo/SLo] | dB[A]             | 46/44/40/38/34/31          | 48/47/43/41/37/34                     | 48/47/43/41/37/34          | 50/48/45/43/41/38                     | 50/48/45/43/41/38          | 51/49/47/45/41/39          | 51/49/47/45/41/39          | 52/50/47/45/41/39          | 52/50/47/45/41/39        |
|                           | nd Power Level                           | dB[A]             | 57                         | 62                                    | 62                         | 63                                    | 63                         | 64                         | 64                         | 65                         | 65                       |
|                           | ension [W×H×D]                           | mm                | 1076×350×800               | 1076×350×800                          | 1076×350×800               | 1300×350×890                          | 1300×350×890               | 1300×350×890               | 1300×350×890               | 1300×350×890               | 1300×350×890             |
|                           | oly Air Spigot [W×H]                     | mm                | 980x222                    | 980x222                               | 980x222                    | 1204x222                              | 1204x222                   | 1204x222                   | 1204x222                   | 1204x222                   | 1204x222                 |
| Return                    | rn Air Spigot [W×H]                      | mm                | 934x308                    | 934x308                               | 934x308                    | 1135x308                              | 1135x308                   | 1135x308                   | 1135x308                   | 1135x308                   | 1135x308                 |
| Packin                    | ting [W×H×D]                             | mm                | 1310×464×970               | 1310×464×970                          | 1310×464×970               | 1576×464×1060                         | 1576×464×1060              | 1576×464×1060              | 1576×464×1060              | 1576×464×1060              | 1576×464×1060            |
| Net/Gr                    | Gross Weight                             | kg                | 54/62                      | 54/62                                 | 54/62                      | 79/88                                 | 79/88                      | 79/88                      | 79/88                      | 79/88                      | 79/88                    |
| Draina                    | nage water pipe diameter                 | mm                | VP25                       | VP25                                  | VP25                       | VP25                                  | VP25                       | VP25                       | VP25                       | VP25                       | VP25                     |
| Compr                     | pressor                                  | Туре              | KTN150D42UFZD              | ATH356SKRC9EQ                         | ATH356SKRC9EQ              | ATH356SKRC9EQ                         | ATH356SKRC9EQ              | ATH356SKRC9EQ              | ATH356SKRC9EQ              | ATH356SKRC9EQ              | ATH356SKRC9EQ            |
|                           |  | R.L.A             | 9.3                        | 11.5                                  | 11.5                       | 11.5                                  | 11.5                       | 11.5                       | 11.5                       | 11.5                       | 11.5                     |
| Fan Mo                    |  | F.L.A             | 0.34                       | 0.62                                  | 0.62                       | 0.62                                  | 0.62                       | 0.62                       | 0.62                       | 0.62                       | 0.62                     |
| Fan Mo                    | Motor Output                             | W                 | 80                         | 138                                   | 138                        | 138                                   | 138                        | 138                        | 138                        | 138                        | 138                      |
| Air Flov                  | ow                                       | m <sup>3</sup> /h | 3290                       | 4800                                  | 4800                       | 8200                                  | 8200                       | 8200                       | 8200                       | 8200                       | 8200                     |
| Sound                     | nd Pressure Level-Cooling                | dB[A]             | 53                         | 56                                    | 56                         | 56                                    | 56                         | 56                         | 56                         | 57                         | 57                       |
| tdoor Unit Sound          | nd Pressure Level-Heating                | dB[A]             | 54                         | 57                                    | 57                         | 57                                    | 57                         | 57                         | 57                         | 59                         | 59                       |
|                           | nd Pressure Level-Night                  | dB[A]             |                            | 54                                    | 54                         | 54                                    | 54                         | 54                         | 54                         | 54                         | 54                       |
| Sound                     | nd Power Level                           | dB[A]             | 70                         | 71                                    | 71                         | 72                                    | 72                         | 73                         | 73                         | 74                         | 74                       |
|                           | ttle Type                                |                   | Electronic Expansion Value | · · · · · · · · · · · · · · · · · · · | Electronic Expansion Value | · · · · · · · · · · · · · · · · · · · | Electronic Expansion Value | Electronic Expansion Value | Electronic Expansion Value | Electronic Expansion Value | Electronic Expansion Val |
|                           | ension [W×H×D]                           | mm                | 900×665×320                | 950×990×320                           | 950×990×320                | 950×1380×320                          | 950×1380×320               | 950×1380×320               | 950×1380×320               | 950×1380×320               | 950×1380×320             |
|                           | ring [W×H×D]                             | mm                | 1056×717×427               | 1070×1120×470                         | 1070×1120×470              | 1070×1520×470                         | 1070×1520×470              | 1070×1520×470              | 1070×1520×470              | 1070×1520×470              | 1070×1520×470            |
| Net/Gr                    | Gross Weight                             | kg                | 44.0/48.0                  | 86.5/100.5                            | 86.5/100.5                 | 98.5/109.0                            | 98.5/109.0                 | 108.0/118.5                | 108.0/118.5                | 108.0/118.5                | 108.0/118.5              |
| Type                      | 9  |                   | R32                        | R32                                   | R32                        | R32                                   | R32                        | R32                        | R32                        | R32                        | R32                      |
| rigerant type Charge      | ge                                       | kg                | 1.4                        | 3.0                                   | 3.0                        | 3.1                                   | 3.1                        | 3.4                        | 3.4                        | 3.4                        | 3.4                      |
| GWP                       |  |                   | 675                        | 675                                   | 675                        | 675                                   | 675                        | 675                        | 675                        | 675                        | 675                      |
| gn pressure H/L           |  | MPa               | 4.15/2.21                  | 4.15/2.21                             | 4.15/2.21                  | 4.15/2.21                             | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                |
| rigerant pipe Liquid      | id side/Gas side                         | mm                | Ф6.35/Ф12.7                | Φ9.52/Φ15.88                          | Ф9.52/Ф15.88               | Φ9.52/Φ15.88                          | Ф9.52/Ф15.88               | Ф9.52/Ф15.88               | Ф9.52/Ф15.88               | Ф9.52/Ф15.88               | Ф9.52/Ф15.88             |
| Max. p                    | pipe length                              | m                 | 75                         | 75                                    | 75                         | 75                                    | 75                         | 75                         | 75                         | 75                         | 75                       |
| Max. H                    | Height difference                        | m                 | 30                         | 30                                    | 30                         | 30                                    | 30                         | 30                         | 30                         | 30                         | 30                       |
| Add Re                    | Refrigerant Amount                       | g/m               | 18                         | 35                                    | 35                         | 35                                    | 35                         | 35                         | 35                         | 35                         | 35                       |
| Charge                    | geless                                   | m                 | 30                         | 30                                    | 30                         | 30                                    | 30                         | 30                         | 30                         | 30                         | 30                       |
| annual and                | ing                                      | °C                | -5~52                      | -5~52                                 | -5~52                      | -5~52                                 | -5~52                      | -5~52                      | -5~52                      | -5~52                      | -5~52                    |
| uaranteed Coolin          | 8  |                   |                            |                                       |                            |                                       |                            |                            |                            |                            |                          |

## **Specifications**

## 4-WAY CASSETTE

| IDU   |  |         | PCI-2.0UFA1NQ              | PCI-2.5UFA1NQ              | PCI-3.0UFA1NQ              | PCI-4.0UFA1NQ              | PCI-4.0UFA1NQ             | PCI-5.0UFA1NQ               | PCI-5.0UFA1NQ                | PCI-6.0UFA1NQ             | PCI-6.0UFA1NQ                | PCI-6.5UFA1NQ                | PCI-6.5UFA1NQ              |
|---|--|---------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------|-----------------------------|------------------------------|---------------------------|------------------------------|------------------------------|----------------------------|
|   |  |         | PAS-2.0UFASNQ1             | PAS-2.5UFASNQ1             | PAS-3.0UFASNQ1             | PAS-4.0UFASNQ1             | PAS-4.0UFASMQ1            |                             | PAS-5.0UFASMQ1               | PAS-6.0UFASNQ1            |                              |                              | PAS-6.5UFASMQ1             |
|   |  | V/Ph/Hz | 220~240V / 1Ø / 50Hz       | 220~240V / 1Ø / 50Hz      | 220~240V / 1Ø / 50Hz        | 220~240V / 1Ø / 50Hz         | 220~240V / 1Ø / 50Hz      | 220~240V / 1Ø / 50Hz         | 220~240V / 1Ø / 50Hz         | 220~240V / 1Ø / 50Hz       |
|   | tdoor)                                       | V/Ph/Hz | 220~240V / 1Ø / 50Hz       | 380~415V / 3Ø / 50Hz      | 220~240V / 1Ø / 50Hz        | 380~415V / 3Ø / 50Hz         | 220~240V / 1Ø / 50Hz      | 380~415V / 3Ø / 50Hz         | 220~240V / 1Ø / 50Hz         | 380~415V / 3Ø / 50Hz       |
|   |  | kW      | 3.08                       | 3.08                       | 3.52                       | 5.5                        | 5.5                       | 6.0                         | 6.0                          | 6.27                      | 6.27                         | 6.27                         | 6.27                       |
| max. current input  |  | Α       | 14.0                       | 14.0                       | 16.0                       | 25.0                       | 12.0                      | 27.3                        | 12.0                         | 28.5                      | 12.0                         | 28.5                         | 12.0                       |
| Cooling   | Rated Capacity                               | kW      | 5.0                        | 6.0                        | 7.2                        | 10.0                       | 10.0                      | 12.5                        | 12.5                         | 14.0                      | 14.0                         | 16.0                         | 16.0                       |
|   | Capacity Range[Min~Max]                      | kW      | 1.5~6.0                    | 1.5~7.5                    | 2.5~8.6                    | 3.2~12.0                   | 3.2~12.0                  | 4.0~14.2                    | 4.0~14.2                     | 5.0~16.0                  | 5.0~16.0                     | 6.0~18.0                     | 6.0~18.0                   |
| Heating   | Rated Capacity                               | kW      | 6.0                        | 7.5                        | 8.6                        | 11.5                       | 11.5                      | 14.0                        | 14.0                         | 16.0                      | 16.0                         | 18.0                         | 18.0                       |
|   | Capacity Range[Min~Max]                      | kW      | 1.5~7.5                    | 1.5~9.0                    | 3.5~10.4                   | 3.5~14.0                   | 3.5~14.0                  | 4.0~16.2                    | 4.0~16.2                     | 5.5~18.0                  | 5.5~18.0                     | 6.5~20.0                     | 6.5~20.0                   |
| Power comsumption   | Cooling                                      | kW      | 1.16                       | 1.44                       | 1.92                       | 2.50                       | 2.63                      | 3.38                        | 3.38                         | 4.00                      | 4.00                         | 4.80                         | 5.03                       |
|   | Heating                                      | kW      | 1.28<br>4.20               | 1.69                       | 2.00<br>3.69               | 2.60<br>3.92               | 2.60                      | 3.41                        | 3.41                         | 4.20<br>3.46              | 4.20<br>3.44                 | 5.00                         | 5.00                       |
|   | Cooling                                      |         |                            | 4.09                       |                            |                            | 3.70                      |                             | 3.62                         |                           |                              | 3.30                         | 3.14                       |
| ACOP  | Heating                                      |         | 4.58                       | 4.36                       | 4.24                       | 4.34                       | 4.31                      | 4.05                        | 4.02                         | 3.76                      | 3.75                         | 3.56                         | 3.55                       |
| TCSPF(Cooling)  | Hot  |         | 7.13/6.47                  | 6.76/6.17                  | 6.16/5.65                  | 5.97/5.50                  | 5.45/5.01                 | 5.80/5.35                   | 5.79/5.31                    | 5.44/5.02                 | 5.51/5.07                    | 5.35/4.93                    | 5.34/4.89                  |
| /Residential  | Average                                      |         | 7.16/5.54                  | 6.83/5.42                  | 6.29/5.06                  | 5.99/4.88                  | 5.41/4.36                 | 5.89/4.82                   | 5.81/4.67                    | 5.54/4.58                 | 5.57/4.51                    | 5.50/4.53                    | 5.46/4.40                  |
|   | Cold   |         | 7.67/5.69                  | 7.32/5.59                  | 6.78/5.28                  | 6.37/4.99                  | 5.71/4.39                 | 6.32/5.01                   | 6.21/4.53                    | 5.94/4.76                 | 5.96/4.67                    | 5.93/4.75                    | 5.91/4.62                  |
| Power supply (Indo Power supply (Outo Max. power input Max. current input Cooling Heating Power comsumption AEER ACOP TCSPF(Cooling) Commercial /Residential HSPF(Heating) Commercial /Residential Indoor Unit  Outdoor Unit  | Hot  |         | 5.86/5.85                  | 5.69/5.68                  | 5.86/5.83                  | 5.21/5.20                  | 5.39/5.38                 | 5.35/5.34                   | 5.35/5.34                    | 5.24/5.22                 | 5.35/5.33                    | 5.21/5.18                    | 5.56/5.53                  |
|   | Average                                      |         | 5.37/5.04                  | 5.18/4.81                  | 5.03/4.41                  | 4.53/4.00                  | 4.71/4.19                 | 4.68/4.49                   | 4.69/4.51                    | 4.55/4.35                 | 4.56/3.97                    | 4.69/4.31                    | 4.97/4.54                  |
|   | Cold   |         | 4.49/4.19                  | 4.29/3.96                  | 4.04/3.60                  | 3.68/3.29                  | 3.84/3.47                 | 4.04/3.73                   | 4.06/3.76                    | 3.92/3.62                 | 3.68/3.27                    | 3.90/3.60                    | 4.11/3.78                  |
|   | Fan Motor Output                             | W       | 60                         | 60                         | 60                         | 127                        | 127                       | 127                         | 127                          | 127                       | 127                          | 127                          | 127                        |
| Indoor Unit   | Air Flow[Hi2/Hi1/Hi/Med/Lo/SLo]              | L/s     | 350/310/275/250            | 350/310/275/250            | 390/350/310/250            | 510/470/390/300            | 510/470/390/300           | 570/510/470/350             | 570/510/470/350              | 570/510/470/350           | 570/510/470/350              | 610/550/510/450              | 610/550/510/450            |
| Indoor Unit   | Sound Pressure Level [Hi2/Hi1/Hi/Med/Lo/SLo] | dB[A]   | 39/36/33/30                | 39/36/33/30                | 41/39/36/33                | 47/44/40/33                | 47/44/40/33               | 49/47/44/36                 | 49/47/44/36                  | 49/47/44/36               | 49/47/44/36                  | 50/48/46/43                  | 50/48/46/43                |
| Indoor Unit   | Sound Power Level                            | dB[A]   | 50                         | 50                         | 52                         | 58                         | 58                        | 60                          | 60                           | 60                        | 60                           | 63                           | 63                         |
|   | Dimension [W×H×D]                            | mm      | 840×238×840                | 840×238×840                | 840×238×840                | 840×288×840                | 840×288×840               | 840×288×840                 | 840×288×840                  | 840×288×840               | 840×288×840                  | 840×288×840                  | 840×288×840                |
|   | Packing [W×H×D]                              | mm      | 945×292×945                | 945×292×945                | 945×292×945                | 945×342×945                | 945×342×945               | 945×342×945                 | 945×342×945                  | 945×342×945               | 945×342×945                  | 945×342×945                  | 945×342×945                |
|   | Net/Gross Weight                             | kg      | 23/27                      | 23/27                      | 23/27                      | 27/31                      | 27/31                     | 27/31                       | 27/31                        | 27/31                     | 27/31                        | 27/31                        | 27/31                      |
|   | Drainage water pipe diameter                 | mm      | VP25                       | VP25                       | VP25                       | VP25                       | VP25                      | VP25                        | VP25                         | VP25                      | VP25                         | VP25                         | VP25                       |
|   | Compressor                                   | Туре    | KTN150D42UFZD              | KTN150D42UFZD              | KTM240D43UKT               | ATH356SKRC9EQ              | ATH356SKRC9EQ             | ATH356SKRC9EQ               | ATH356SKRC9EQ                | ATH356SKRC9EQ             | ATH356SKRC9EQ                | ATH356SKRC9EQ                | ATH356SKRC9EQ              |
|   |  | R.L.A   | 7.7                        | 7.7                        | 9.3                        | 11.5                       | 11.5                      | 11.5                        | 11.5                         | 11.5                      | 11.5                         | 11.5                         | 11.5                       |
|   | Fan Motor                                    | F.L.A   | 0.34                       | 0.34                       | 0.34                       | 0.62                       | 0.62                      | 0.62                        | 0.62                         | 0.62                      | 0.62                         | 0.62                         | 0.62                       |
|   | Fan Motor Output                             | W       | 80                         | 80                         | 80                         | 138                        | 138                       | 138                         | 138                          | 138                       | 138                          | 138                          | 138                        |
|   | Air Flow                                     | m³/h    | 3290                       | 3290                       | 3290                       | 4800                       | 4800                      | 8200                        | 8200                         | 8200                      | 8200                         | 8200                         | 8200                       |
|   | Sound Pressure Level-Cooling                 | dB[A]   | 53                         | 53                         | 53                         | 56                         | 56                        | 56                          | 56                           | 56                        | 56                           | 57                           | 57                         |
| Outdoor Unit  | Sound Pressure Level-Heating                 | dB[A]   | 54                         | 54                         | 54                         | 57                         | 57                        | 57                          | 57                           | 57                        | 57                           | 59                           | 59                         |
|   | Sound Pressure Level-Night                   | dB[A]   | 51                         | 51                         | 51                         | 54                         | 54                        | 54                          | 54                           | 54                        | 54                           | 54                           | 54                         |
|   | Sound Power Level                            | dB[A]   | 66                         | 67                         | 70                         | 71                         | 71                        | 72                          | 72                           | 73                        | 73                           | 74                           | 74                         |
|   | Throttle Type                                |         | Electronic Expansion Value | Electronic Expansion Value | Electronic Expansion Value | Electronic Expansion Value | Electronic Expansion Valu | e Electronic Expansion Valu | e Electronic Expansion Value | Electronic Expansion Valu | e Electronic Expansion Value | e Electronic Expansion Value | Electronic Expansion Value |
| Heating Rai  Heating Rai  Cal  Power Consumption He  AEER Con  ACOP He  TCSPF(Cooling) Commercial /Residential Col  HSPF(Heating) Commercial /Residential Soi  Indoor Unit Soi  Dir  Par  Air  Soi  Far  Far  Air  Far  Far  Air  Soi  Outdoor Unit Soi  Soi  Thi  Dir  Pac  Are  Air  Far  Far  Air  Far  Far  Air  Far  Far  Air  Far  Far  Air  Far  Air  Soi  Col  Col  Col  Col  Col  Eda  Far  Far  Far  Air  Far  Far  Air  Far  Air  Soi  Col  Col  Col  Eda  Far  Far  Far  Air  Far  Far  Air  Far  Air  Soi  Col  Col  Col  Eda  Far  Far  Air  Far  Air  Far  Air  Far  Air  Soi  Col  Col  Col  Eda  Far  Far  Air  Far  Air  Far  Air  Far  Air  Soi  Outdoor Unit  Soi  Soi  Thi  Dir  Pac  Net  Ch: GW  Design pressure H/L  Refrigerant pipe Liq  Ma  Ma | Dimension [W×H×D]                            | mm      | 900×665×320                | 900×665×320                | 900×665×320                | 950×990×320                | 950×990×320               | 950×1380×320                | 950×1380×320                 | 950×1380×320              | 950×1380×320                 | 950×1380×320                 | 950×1380×320               |
|   | Packing [W×H×D]                              | mm      | 1056×717×427               | 1056×717×427               | 1056×717×427               | 1070×1120×470              | 1070×1120×470             | 1070×1520×470               | 1070×1520×470                | 1070×1520×470             | 1070×1520×470                | 1070×1520×470                | 1070×1520×470              |
|   | Net/Gross Weight                             | kg      | 42.0/45.5                  | 42.0/45.5                  | 44.0/48.0                  | 86.5/100.5                 | 86.5/100.5                | 98.5/109.0                  | 98.5/109.0                   | 108.0/118.5               | 108.0/118.5                  | 108.0/118.5                  | 108.0/118.5                |
| B. 61   | Туре   |         | R32                        | R32                        | R32                        | R32                        | R32                       | R32                         | R32                          | R32                       | R32                          | R32                          | R32                        |
|   | Charge                                       | kg      | 1.2                        | 1.2                        | 1.4                        | 3.0                        | 3.0                       | 3.1                         | 3.1                          | 3.4                       | 3.4                          | 3.4                          | 3.4                        |
|   | GWP  |         | 675                        | 675                        | 675                        | 675                        | 675                       | 675                         | 675                          | 675                       | 675                          | 675                          | 675                        |
| Design pressure   | H/L  | MPa     | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                 | 4.15/2.21                   | 4.15/2.21                    | 4.15/2.21                 | 4.15/2.21                    | 4.15/2.21                    | 4.15/2.21                  |
| Refrigerant pipe  | Liquid side/Gas side                         | mm      | Φ6.35/Φ12.7                | Φ6.35/Φ12.7                | Φ6.35/Φ12.7                | Φ9.52/Φ15.88               | Ф9.52/Ф15.88              | Ф9.52/Ф15.88                | Ф9.52/Ф15.88                 | Ф9.52/Ф15.88              | Ф9.52/Ф15.88                 | Ф9.52/Ф15.88                 | Ф9.52/Ф15.88               |
|   | Max. pipe length                             | m       | 50                         | 50                         | 75                         | 75                         | 75                        | 75                          | 75                           | 75                        | 75                           | 75                           | 75                         |
|   | Max. Height difference                       | m       | 30                         | 30                         | 30                         | 30                         | 30                        | 30                          | 30                           | 30                        | 30                           | 30                           | 30                         |
|   | Add Refrigerant Amount                       | g/m     | 18                         | 18                         | 18                         | 35                         | 35                        | 35                          | 35                           | 35                        | 35                           | 35                           | 35                         |
|   | Chargeless                                   | m       | 30                         | 30                         | 30                         | 30                         | 30                        | 30                          | 30                           | 30                        | 30                           | 30                           | 30                         |
| Guaranteed  | Cooling                                      | °C      | -5~52                      | -5~52                      | -5~52                      | -5~52                      | -5~52                     | -5~52                       | -5~52                        | -5~52                     | -5~52                        | -5~52                        | -5~52                      |
| Temperature<br>Operation Range  | Heating                                      | °C      | -20~15.5                   | -20~15.5                   | -20~15.5                   | -20~15.5                   | -20~15.5                  | -20~15.5                    | -20~15.5                     | -20~15.5                  | -20~15.5                     | -20~15.5                     | -20~15.5                   |
|   |  |         |                            |                            |                            |                            |                           |                             |                              |                           |                              |                              |                            |

**Specifications**CEILING SUSPENDED



| DU                      |  |         | PPFC-2.0UFA1NQ             | PPFC-2.5UFA1NQ             | PPFC-3.0UFA1NQ             | PPFC-4.0UFA1NQ             | PPFC-4.0UFA1NQ             | PPFC-5.0UFA1NQ             | PPFC-5.0UFA1NQ             | PPFC-6.0UFA1NQ             | PPFC-6.0UFA1NQ            |
|-------------------------|--|---------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------|
| DU                      |  |         | PAS-2.0UFASNQ1             | PAS-2.5UFASNQ1             | PAS-3.0UFASNQ1             | PAS-4.0UFASNQ1             | PAS-4.0UFASMQ1             | PAS-5.0UFASNQ1             | PAS-5.0UFASMQ1             | PAS-6.0UFASNQ1             | PAS-6.0UFASMQ1            |
| ower supply (Ind        | loor)  | V/Ph/Hz | 220~240V / 1Ø / 50Hz       | 220~240V / 1Ø / 50Hz      |
| ower supply (Ou         | tdoor)                                       | V/Ph/Hz | 220~240V / 1Ø / 50Hz       | 380~415V / 3Ø / 50Hz       | 220~240V / 1Ø / 50Hz       | 380~415V / 3Ø / 50Hz       | 220~240V / 1Ø / 50Hz       | 380~415V / 3Ø / 50Hz      |
| ax. power input         |  | kW      | 3.08                       | 3.08                       | 3.52                       | 5.5                        | 5.5                        | 6.0                        | 6.0                        | 6.27                       | 6.27                      |
| ax. current input       | :  | Α       | 14.0                       | 14.0                       | 16.0                       | 25.0                       | 12.0                       | 27.3                       | 12.0                       | 28.5                       | 12.0                      |
| ooling                  | Rated Capacity                               | kW      | 5.0                        | 6.0                        | 7.2                        | 10.0                       | 10.0                       | 12.5                       | 12.5                       | 14.0                       | 14.0                      |
| Journa                  | Capacity Range[Min~Max]                      | kW      | 1.5~6.0                    | 1.5~7.5                    | 2.5~8.6                    | 3.2~12.0                   | 3.2~12.0                   | 4.0~14.2                   | 4.0~14.2                   | 5.0~16.0                   | 5.0~16.0                  |
| eating                  | Rated Capacity                               | kW      | 6.0                        | 7.5                        | 8.6                        | 11.5                       | 11.5                       | 14.0                       | 14.0                       | 16.0                       | 16.0                      |
| uting                   | Capacity Range[Min~Max]                      | kW      | 1.5~7.5                    | 1.5~9.0                    | 3.5~10.4                   | 3.5~14.0                   | 3.5~14.0                   | 4.0~16.2                   | 4.0~16.2                   | 5.5~18.0                   | 5.5~18.0                  |
| wer                     | Cooling                                      | kW      | 1.28                       | 1.66                       | 2.06                       | 2.70                       | 2.70                       | 3.87                       | 3.87                       | 4.35                       | 4.20                      |
| msumption               | Heating                                      | kW      | 1.50                       | 2.02                       | 2.20                       | 2.93                       | 2.93                       | 3.92                       | 3.92                       | 4.50                       | 4.50                      |
| R                       | Cooling                                      |         | 3.82                       | 3.55                       | 3.44                       | 3.64                       | 3.61                       | 3.19                       | 3.17                       | 3.18                       | 3.28                      |
| OP                      | Heating                                      |         | 3.92                       | 3.66                       | 3.86                       | 3.86                       | 3.83                       | 3.53                       | 3.51                       | 3.52                       | 3.50                      |
| SPF(Cooling)            | Hot  |         | 5.63/5.20                  | 5.44/5.01                  | 5.44/5.02                  | 5.49/5.07                  | 5.44/5.00                  | 5.28/4.86                  | 5.11/4.69                  | 4.98/4.61                  | 5.76/5.25                 |
| nmercial                | Average                                      |         | 5.58/4.55                  | 5.49/4.48                  | 5.51/4.53                  | 5.52/4.52                  | 5.39/4.34                  | 5.41/4.40                  | 5.19/4.18                  | 5.08/4.22                  | 5.87/4.65                 |
| sidential               | Cold   |         | 5.91/4.62                  | 5.85/4.59                  | 5.91/4.70                  | 5.87/4.63                  | 5.71/4.39                  | 5.84/4.61                  | 5.56/4.32                  | 5.45/4.40                  | 6.36/4.89                 |
|                         | Hot  |         | 4.67/4.61                  | 4.83/4.82                  | 5.31/5.29                  | 4.98/4.97                  | 5.18/5.16                  | 4.79/4.78                  | 5.04/5.02                  | 4.43/4.42                  | 4.47/4.46                 |
| PF(Heating)<br>nmercial | Average                                      |         | 3.76/3.23                  | 4.23/3.76                  | 4.59/4.04                  | 4.58/4.30                  | 4.51/3.99                  | 4.38/4.09                  | 4.30/3.74                  | 3.95/3.58                  | 3.97/3.59                 |
| sidential               | Cold   |         | 3.29/2.72                  | 3.49/3.17                  | 3.73/3.34                  | 3.88/3.64                  | 3.88/3.33                  | 3.71/3.48                  | 3.47/3.09                  | 3.33/3.08                  | 3.50/3.08                 |
|                         | Fan Motor Output                             | w       | 100                        | 100                        | 181                        | 181                        | 181                        | 181                        | 181                        | 181                        | 181                       |
|                         | Air Flow[Hi2/Hi1/Hi/Med/Lo/SLo]              | L/s     | 220/200/180/150            | 255/230/190/150            | 355/330/280/230            | 480/420/370/320            | 480/420/370/320            | 480/440/390/350            | 480/440/390/350            | 550/480/410/370            | 550/480/410/370           |
|                         | Sound Pressure Level [Hi2/Hi1/Hi/Med/Lo/SLo] | dB[A]   | 41/39/35/33                | 45/41/39/33                | 45/41/39/33                | 49/44/42/39                | 49/44/42/39                | 49/46/43/41                | 49/46/43/41                | 52/49/45/41                | 52/49/45/41               |
| oor Unit                | Sound Power Level                            | dB[A]   | 57                         | 61                         | 60                         | 65                         | 65                         | 65                         | 65                         | 68                         | 68                        |
|                         | Dimension [W×H×D]                            | mm      | 990×230×680                | 990x230x680                | 1580×230×680               | 1580×230×680               | 1580×230×680               | 1580×230×680               | 1580×230×680               | 1580×230×680               | 1580×230×680              |
|                         | Packing [W×H×D]                              | mm      | 1110×340×830               | 1110×340×830               | 1690×340×830               | 1690×340×830               | 1690×340×830               | 1690×340×830               | 1690×340×830               | 1690×340×830               | 1690×340×830              |
|                         | Net/Gross Weight                             | kg      | 32/37                      | 32/37                      | 48/55                      | 48/55                      | 48/55                      | 48/55                      | 48/55                      | 48/55                      | 48/55                     |
|                         |  |         | VP25                       | VP25                      |
|                         | Drainage water pipe diameter                 | Type    |                            | KTN150D42UFZD              |                            |                            |                            | ATH356SKRC9EQ              |                            |                            |                           |
|                         | Compressor                                   | R.L.A   | KTN150D42UFZD<br>7.7       | 7.7                        | 9.3                        | ATH356SKRC9EQ<br>11.5      | ATH356SKRC9EQ<br>11.5      | 11.5                       | ATH356SKRC9EQ<br>11.5      | ATH356SKRC9EQ<br>11.5      | ATH356SKRC9EQ<br>11.5     |
|                         | Fan Matau                                    |         |                            |                            |                            |                            |                            |                            |                            |                            |                           |
|                         | Fan Motor                                    | F.L.A   | 0.34                       | 0.34                       | 0.34                       | 0.62                       | 0.62                       | 0.62                       | 0.62                       | 0.62                       | 0.62                      |
|                         | Fan Motor Output                             | W       | 80                         | 80                         | 80                         | 138                        | 138                        | 138                        | 138                        | 138                        | 138                       |
|                         | Air Flow                                     | m³/h    | 3290                       | 3290                       | 3290                       | 4800                       | 4800                       | 8200                       | 8200                       | 8200                       | 8200                      |
|                         | Sound Pressure Level-Cooling                 | dB[A]   | 53                         | 53                         | 53                         | 56                         | 56                         | 56                         | 56                         | 56                         | 56                        |
| door Unit               | Sound Pressure Level-Heating                 | dB[A]   | 54                         | 54                         | 54                         | 57                         | 57                         | 57                         | 57                         | 57                         | 57                        |
|                         | Sound Pressure Level-Night                   | dB[A]   |                            | 51                         | 51                         | 54                         | 54                         | 54                         | 54                         | 54                         | 54                        |
|                         | Sound Power Level                            | dB[A]   | 66                         | 67                         | 70                         | 71                         | 71                         | 72                         | 72                         | 73                         | 73                        |
|                         | Throttle Type                                |         | Electronic Expansion Value | Electronic Expansion Valu |
|                         | Dimension [W×H×D]                            | mm      | 900×665×320                | 900×665×320                | 900×665×320                | 950×990×320                | 950×990×320                | 950×1380×320               | 950×1380×320               | 950×1380×320               | 950×1380×320              |
|                         | Packing [W×H×D]                              | mm      | 1056×717×427               | 1056×717×427               | 1056×717×427               | 1070×1120×470              | 1070×1120×470              | 1070×1520×470              | 1070×1520×470              | 1070×1520×470              | 1070×1520×470             |
|                         | Net/Gross Weight                             | kg      | 42.0/45.5                  | 42.0/45.5                  | 44.0/48.0                  | 86.5/100.5                 | 86.5/100.5                 | 98.5/109.0                 | 98.5/109.0                 | 108.0/118.5                | 108.0/118.5               |
|                         | Туре   |         | R32                        | R32                       |
| igerant type<br>antity  | Charge                                       | kg      | 1.2                        | 1.2                        | 1.4                        | 3.0                        | 3.0                        | 3.1                        | 3.1                        | 3.4                        | 3.4                       |
| ,                       | GWP  |         | 675                        | 675                        | 675                        | 675                        | 675                        | 675                        | 675                        | 675                        | 675                       |
| n pressure              | H/L  | MPa     | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                  | 4.15/2.21                 |
| gerant pipe             | Liquid side/Gas side                         | mm      | Φ6.35/Φ12.7                | Φ6.35/Φ12.7                | Φ6.35/Φ12.7                | Ф9.52/Ф15.88               | Ф9.52/Ф15.88               | Ф9.52/Ф15.88               | Ф9.52/Ф15.88               | Φ9.52/Φ15.88               | Ф9.52/Ф15.88              |
|                         | Max. pipe length                             | m       | 50                         | 50                         | 75                         | 75                         | 75                         | 75                         | 75                         | 75                         | 75                        |
|                         | Max. Height difference                       | m       | 30                         | 30                         | 30                         | 30                         | 30                         | 30                         | 30                         | 30                         | 30                        |
|                         | Add Refrigerant Amount                       | g/m     | 18                         | 18                         | 18                         | 35                         | 35                         | 35                         | 35                         | 35                         | 35                        |
|                         | Chargeless                                   | m       | 30                         | 30                         | 30                         | 30                         | 30                         | 30                         | 30                         | 30                         | 30                        |
|                         | Cooling                                      | °C      | -5~52                      | -5~52                      | -5~52                      | -5~52                      | -5~52                      | -5~52                      | -5~52                      | -5~52                      | -5~52                     |
| aranteed<br>mperature   |  |         |                            |                            |                            |                            |                            |                            |                            |                            |                           |



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