

**HITACHI**  
Inspire the Next

Introducing The **PREMIUM**  
Multi-split Air Conditioning System for Buildings

SET-FREE FSN<sup>2</sup>



R410A

A comfortable air-conditioned environment is essential in buildings which are part of a comfortable urban space. Air conditioning systems for buildings are required to meet various needs such as "consideration for the global environment", "lower energy consumption", "lighter installation work", and "smaller footprint". Hitachi's new multi-split air conditioning system for buildings, the SET-FREE FSN2, can meet such needs on a high level. Based on cutting edge technologies, a rich portfolio, a diversity of options and comprehensive services that only Hitachi can provide, we will offer a comfortable air-conditioned environment in accordance with the characteristics and functions of the building. The concept of the Hitachi SET-FREE series is to provide buildings with high-quality, high-value-added air conditioning systems.

## Environmental Design

Simply replacing the current air conditioner by the HITACHI SET-FREE FSN2 series high efficiency model is an environmentally friendly approach, and can form an effective part of a CO<sub>2</sub> emission reduction program in buildings and factories.

Equivalent to  
amount of CO<sub>2</sub>  
absorbed annually  
by forest of 0.9ha.

### ■ Drastic Reduction of CO<sub>2</sub> Emission\*



Estimate: Comparison with HITACHI 20-HP Outdoor Unit of 1993.  
\* Hitachi estimate under the domestic electric power.

## Advantages

# SET-FREE FSN<sup>2</sup>

The PREMIUM Multi-split Air Conditioning System for Buildings

### ■ Energy Saving

Thanks to Hitachi's unique energy-saving technology such as the high-efficiency DC inverter compressor, industry-leading COP has been achieved.

### ■ Easy Installation

Integrated compact design for all models of outdoor units. Simplifies installation and increases the flexibility of location. In addition, the maximum piping length was extended from 300m to 1,000m, further improving flexibility in design.

### ■ Wide Product Range

4 types and 21 models of outdoor units  
7 types and 39 models of indoor units

### ■ Comfort

Fine temperature setting and noise reduction technology for comfortable air conditioning.

### ■ Reliability

Hitachi's long scroll compressor experience ensures greater reliability.

### ■ Control by Network System

With the H-LINK II system:

- The number of connectable indoor units is significantly increased.
- Workability is drastically improved.
- Functionality is greatly enhanced.



## The industry-leading COP is achieved by the following new technologies

■ Double DC Fan Motors

■ Super High-Stream & High-Efficiency Fan

■ Duct-Type Shroud

■ Large Capacity Constant Speed Compressor



■ High-Efficiency Heat Exchanger with High-Efficiency Heat Transfer Fin

■ New Type DC Inverter Compressor with Release Valve

# Wide Product Range

Space, structure, and necessary functions. In line with the evolution in building design, the requirements for air conditioning have also diversified.

The Hitachi SET-FREE FSN2 series offers 4 types of integrated outdoor units and 7 types (39 models) of indoor units. By combining units from a wide selection of models, you can create a custom air conditioning environment to satisfy your specific building conditions.

## Outdoor Units



|    |            |
|----|------------|
| 8  | RAS-8FSN2  |
| 10 | RAS-10FSN2 |
| 12 | RAS-12FSN2 |

## Indoor Units



|      | 4-Way Cassette | 2-Way Cassette | In-the-ceiling | Ceiling     |
|------|----------------|----------------|----------------|-------------|
| 0.8  |                |                | RPI-0.8FSN2    |             |
| 1.0  | RCI-1.0FSN2    | RCD-1.0FSN2    | RPI-1.0FSN2    |             |
| 1.5  | RCI-1.5FSN2    | RCD-1.5FSN2    | RPI-1.5FSN2    |             |
| 2.0  | RCI-2.0FSN2    | RCD-2.0FSN2    | RPI-2.0FSN2    | RPC-2.0FSN2 |
| 2.5  | RCI-2.5FSN2    | RCD-2.5FSN2    | RPI-2.5FSN2    | RPC-2.5FSN2 |
| 3.0  | RCI-3.0FSN2    | RCD-3.0FSN2    | RPI-3.0FSN2    | RPC-3.0FSN2 |
| 4.0  | RCI-4.0FSN2    | RCD-4.0FSN2    | RPI-4.0FSN2    | RPC-4.0FSN2 |
| 5.0  | RCI-5.0FSN2    | RCD-5.0FSN2    | RPI-5.0FSN2    | RPC-5.0FSN2 |
| 8.0  |                |                | RPI-8FSN       |             |
| 10.0 |                |                | RPI-10FSN      |             |



|    |            |    |            |    |            |
|----|------------|----|------------|----|------------|
| 14 | RAS-14FSN2 | 26 | RAS-26FSN2 | 44 | RAS-44FSN2 |
| 16 | RAS-16FSN2 | 28 | RAS-28FSN2 | 46 | RAS-46FSN2 |
| 18 | RAS-18FSN2 | 30 | RAS-30FSN2 | 48 | RAS-48FSN2 |
| 20 | RAS-20FSN2 | 32 | RAS-32FSN2 |    |            |
| 22 | RAS-22FSN2 | 34 | RAS-34FSN2 |    |            |
| 24 | RAS-24FSN2 | 36 | RAS-36FSN2 |    |            |
|    |            | 38 | RAS-38FSN2 |    |            |
|    |            | 40 | RAS-40FSN2 |    |            |
|    |            | 42 | RAS-42FSN2 |    |            |



## System Equipment



### Wall

### Floor

### Floor Concealed

|               |              |               |
|---------------|--------------|---------------|
| RPK-1.0FSNSM2 | RPF-1.0FSN2E | RPFI-1.0FSN2E |
| RPK-1.5FSNSM2 | RPF-1.5FSN2E | RPFI-1.5FSN2E |
| RPK-2.0FSNSM2 |              |               |
| RPK-2.5FSNSM2 |              |               |
| RPK-3.0FSNSM2 |              |               |
| RPK-4.0FSNSM2 |              |               |

### Total Heat Exchanger

|       |           |
|-------|-----------|
| 250   | KPI-2521  |
| 500   | KPI-5021  |
| 800   | KPI-8021  |
| 1,000 | KPI-10021 |

Capacity Range (m³/h)

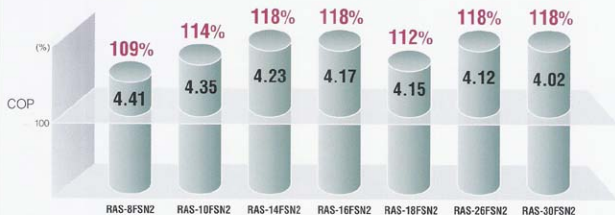
# Energy-saving and Comfort

## Providing the Highest-ever COP in the SET-FREE Series!

Various cooling circuit technologies and new R410A DC inverter compressor achieve an industry-leading level of efficiency and energy-saving performance.

### Top Class COP ~COP of 4.0 or higher achieved by 7 models in the FSN2 series (50 Hz)~

Comparison of average cooling/heating COP with Hitachi FSN1 series (current model series).

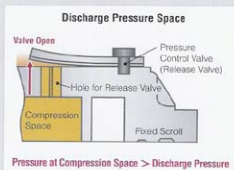


\* Comparison when COP of FSN1 series is 100%. \* For a single outdoor unit.  
\* The cooling and heating performances shown are the values when combined with our specified indoor units.

## New Type DC Inverter Scroll Compressor

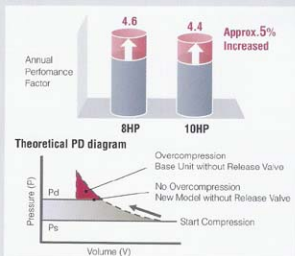
### Improved Intermediate Pressure Performance

The intermediate pressure performance is drastically improved by using a release valve and optimizing orbiting scroll lifting force in the improved new compression mechanism, therefore intermediate pressure performance is largely improved for energy-saving.



### Release Valve Adoption Prevents from Overcompression.

### Orbiting Scroll Lifting Force Optimization is Improved Leakage Loss Reduction.



## Large Capacity Constant Speed Compressor

Large capacity constant speed compressor is equipped with over 22HP outdoor units to reduce the number of compressors.

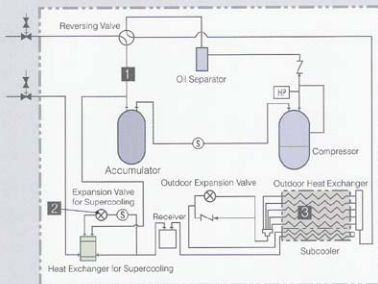


## Use of Supercooling Circuit

By using a supercooling circuit for the refrigeration cycle and optimizing the piping system, the performance is greatly improved.

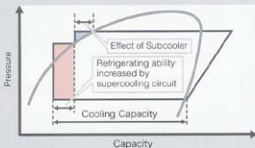
- **Reduced piping pressure loss in the unit**
- **Optimized expansion valve control**
- **Optimized heat exchanger**
  - 2-gas, 1-liquid pass arrangement
  - Subcooler in front
- **Supercooling circuit adopted**  
Piping pressure loss decreased by subcooling in liquid pipe.

Example RAS-8 to 12FSN2 Refrigerant Cycle Outline Diagram



## Supercooling Circuit

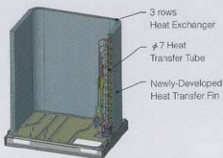
Performance improved by high-efficiency plate type heat exchanger.



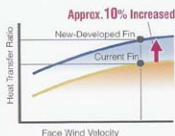
High-Efficiency Plate Type Heat Exchanger

## High-Efficiency Heat Exchanger

- Compact design and high-efficiency by arranging narrow heat exchanger tubes in 3 rows
- Newly-Developed High-Efficiency Heat Transfer Fin
- Heat Exchanger Configuration Aimed at Fluid Loss Reduction



### ■ Improved Heat Transfer Capacity



### ■ Air Ventilation Resistance



### ■ Improved Heat Transfer Tube in Fin



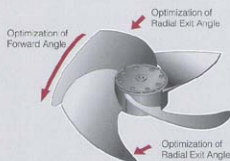
# Energy-saving and Comfort

## Double DC Fan Motors

Double DC inverter-driven fan motors are provided in the 2-row and 3-row cabinet. High-efficiency, low noise operation is realized.

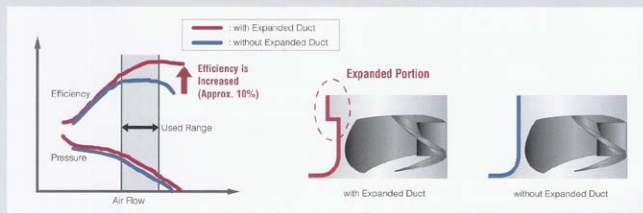
## Super High-Stream, High-Efficiency Fan

- New "4-Blade Super High-Stream Fan" with  $\phi 710$  Diameter
- Reduction of Fan Motor Input Power Consumption, Rotation Speed and Noise (Rotation Speed Reduction is approx. 25%.)



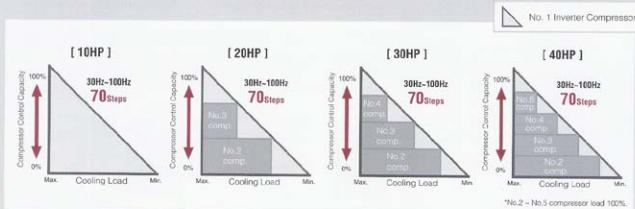
## Duct Type Shroud

A High-efficiency fan is realized by adopting duct type shroud structure.



## Capacity Control by 1 Hz, The Only One in The Industry

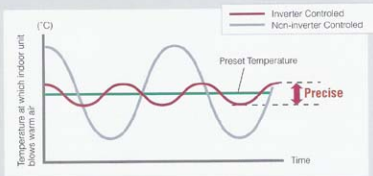
Performance is greatly improved by the high efficiency DC inverter compressor and 100% load compressor, lossless energy-saving operation is achieved (depending on the building).





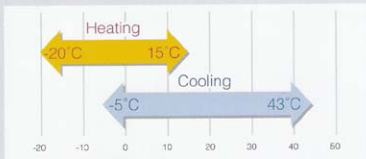
## Precise Temperature Setting

By properly controlling the refrigerant quantity by an electronic expansion valve, the temperature can be finely set.



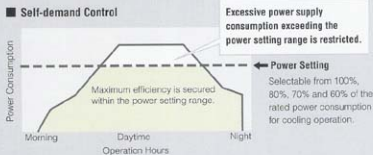
## Wide Working Range

SET-FREE FSN2 can handle a wide range of outside air conditions, thus extending the flexibility of installation space and climatic environment.



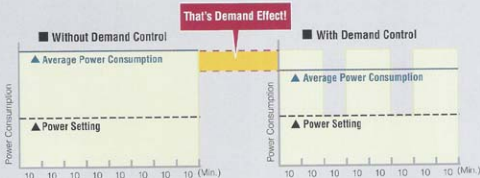
## Self-demand Control

A newly developed self-demand function has largely improved energy-saving effects. Since the current is self-detected and demand control performed automatically, no signal wiring work is required. Conventional demand control using demand signals is also available, and you can select various operations as required.



## Wave Mode

Wave mode equipped to turn demand control ON and OFF alternately at intervals of about 20 min. or 10 min. While power is saved without fail, temperature changes are also minimized to maintain a comfortable room temperature.



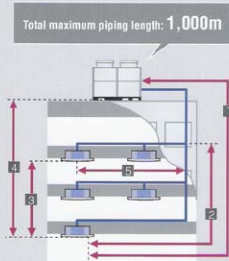
# Flexibility of Installation

## More Flexible Refrigerant Piping Works

Improved flexibility of design by increasing the pipe length to 165 m max. (equivalent length of 190 m) in FSN2 series.

- 1 Max. piping length: **165 m**\*1
- 2 Between first branch and indoor unit: **90m or less**
- 3 Height difference between highest and lowest indoor units: **15m or less**
- 4 Height difference between outdoor and indoor units: **50m**\*2
- 5 Max. length after branch: **40m**

|                                      | Current Model (FSN1) | New Model (FSN2) |
|--------------------------------------|----------------------|------------------|
| Total maximum piping length          | 300 m                | 1,000 m          |
| Max. piping length                   | 150 m                | 165 m            |
| Between first branch and indoor unit | 40 m                 | 90 m             |
| Max. piping length after branch      | 30 m                 | 40 m             |



- \*1 For 100m or more, the pipe diameter will be one size larger.  
 \*2 In case the outdoor unit is installed at a higher level than indoor units. If the outdoor unit is installed lower than indoor units, the maximum height difference is 40m.

## Integrated Design Provides Transportation Time Saving

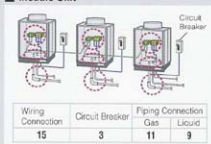
Only one crane operation is required for installation.



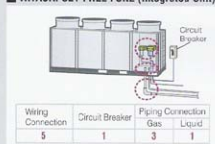
## Easy Installation

HITACHI's integrated design for all outdoor unit models allows for easy installation and high reliability by minimizing piping connections.

### Module Unit



### HITACHI SET-FREE FSN2 (Integrated Unit)



## Combined Unit to Improve Capacity

As shown in the table on the right, the minimum capacity and maximum number of indoor units to be connected are increased to match the indoor load.

### NOTES

( ): Max. number of min. capacity indoor units connectable.

\* Indoor unit connected capacity range : 50-130% of outdoor unit capacity.

\* Secure air permeability in the event of refrigerant leakage.

| Outdoor Unit Capacity | Min. Capacity of Indoor Units Connectable | Max. Number of Indoor Units Connectable |
|-----------------------|---|---|
| 8 HP                  | 0.8 HP                                    | 13 (8)                                  |
| 10 HP                 | 0.8 HP                                    | 16 (8)                                  |
| 12 HP                 | 0.8 HP                                    | 16 (8)                                  |
| 14 HP                 | 0.8 HP                                    | 20 (12)                                 |
| 16 HP                 | 0.8 HP                                    | 20 (12)                                 |
| 18 HP                 | 0.8 HP                                    | 20 (16)                                 |
| 20 HP                 | 0.8 HP                                    | 20 (16)                                 |
| 22 HP                 | 0.8 HP                                    | 20 (16)                                 |
| 24 HP                 | 0.8 HP                                    | 27 (20)                                 |
| 26 HP                 | 0.8 HP                                    | 29 (20)                                 |
| 28 HP                 | 0.8 HP                                    | 31 (24)                                 |

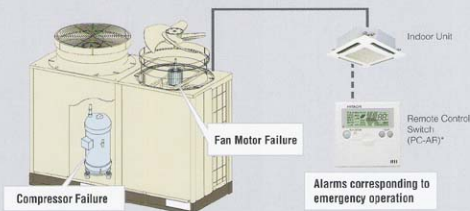
| Outdoor Unit Capacity | Min. Capacity of Indoor Units Connectable | Max. Number of Indoor Units Connectable |
|-----------------------|---|---|
| 30 HP                 | 0.8 HP                                    | 32 (24)                                 |
| 32 HP                 | 0.8 HP                                    | 32 (24)                                 |
| 34 HP                 | 0.8 HP                                    | 34 (28)                                 |
| 36 HP                 | 0.8 HP                                    | 34 (28)                                 |
| 38 HP                 | 0.8 HP                                    | 38 (32)                                 |
| 40 HP                 | 0.8 HP                                    | 38 (32)                                 |
| 42 HP                 | 0.8 HP                                    | 42 (34)                                 |
| 44 HP                 | 0.8 HP                                    | 42 (34)                                 |
| 46 HP                 | 0.8 HP                                    | 46 (38)                                 |
| 48 HP                 | 0.8 HP                                    | 46 (38)                                 |

## Emergency Mode Operation from Remote Control Switch

If compressor/fan motor fails, an emergency operation mode can be selected from the remote control switch. Even if the compressor fails, air-conditioning operation continues until troubleshooting is performed.

### NOTES

- \* An "Abnormal Outdoor Unit Fan" error message is available only for units equipped with multiple fans.
- \* The emergency operation is not affected by the failure of the inverter PCB or fan controller.
- \* The Emergency Mode is available only with the PC-AR.

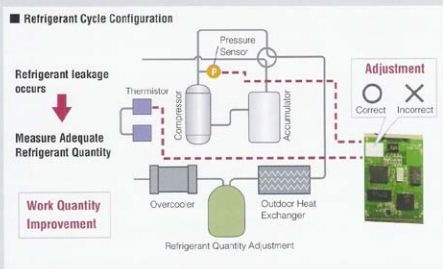


## New Function for Adequate Refrigerant Quantity Measurement

A New function for adequate refrigerant quantity measurement is adopted for all unit models. If refrigerant leakage occurs or refrigerant piping length is inadequate, this function measures the adequate refrigerant quantity by refrigerant cycle pressure or temperature. This function is of practical use for adequate refrigerant charging at test run or servicing.

### NOTES

- \* Refrigerant over-charging is not detected. Over-charging can be detected by gradually adding refrigerant from the under-charged state at test run or when refrigerant leakage occurs.
- \* This function not provide automatic refrigerant charging.
- \* The adjustment (estimate) is changed according to the operation condition (the number of operating units and temperature).



## Protection for Cold Draft at Cooling Operation

This function is to protect the cold draft while cooling operation at intermediate season or low temperature. This function provides comfortable air conditioning.

# General Data

## Outdoor Units

| Model  |                      | RAS-8FSN2   | RAS-10FSN2          | RAS-12FSN2          | RAS-14FSN2             | RAS-16FSN2             |
|--|----------------------|---|---------------------|---------------------|------------------------|------------------------|
| Power Supply   |                      | AC 3 φ, 380-415V / 50Hz, 220V / 60Hz, 380V / 60Hz |                     |                     |                        |                        |
| Nominal Cooling Capacity *1)                                   | kW                   | 23.3  | 29.1                | 34.9                | 40.7                   | 46.5                   |
|  | kcal/h               | 20,000  | 25,000              | 30,000              | 35,000                 | 40,000                 |
|  | Btu/h                | 79,500  | 99,300              | 119,100             | 138,900                | 158,700                |
| Nominal Cooling Capacity *2)                                   | kW                   | 22.4  | 28.0                | 33.5                | 40.0                   | 45.0                   |
|  | kcal/h               | 19,300  | 24,100              | 28,800              | 34,400                 | 38,700                 |
|  | Btu/h                | 76,400  | 95,500              | 114,300             | 136,500                | 153,500                |
| Nominal Heating Capacity                                       | kW                   | 25.0  | 31.5                | 37.5                | 45.0                   | 50.0                   |
|  | kcal/h               | 21,500  | 27,100              | 32,200              | 38,700                 | 43,000                 |
|  | Btu/h                | 85,300  | 107,500             | 128,000             | 153,500                | 170,600                |
| Cabinet Color  |                      | Natural Gray                                      |                     |                     |                        |                        |
| Sound Pressure Level (Overall A Scale) (Night-Shift) 50 / 60Hz | dB                   | 56 (51)   | 58 (53)             | 60 (55)             | 58 (53)                | 58 (53)                |
| Dimensions H x W x D   | mm                   | 1,670 x 1,080 x 830                               | 1,670 x 1,380 x 830 | 1,670 x 1,080 x 830 | 1,670 x 1,850 x 830    | 1,670 x 1,850 x 830    |
| Net Weight   | kg                   | 275   | 275                 | 275                 | 385-415V/470, 220V/460 | 385-415V/470, 220V/460 |
| Refrigerant (Flow Control)                                     |                      | R410A (Micro-Computer Control Expansion Valve)    |                     |                     |                        |                        |
| Refrigerant Charge   | kg                   | 10.0  | 10.5                | 11.0                | 13.0                   | 13.0                   |
| Compressor   |                      | Hermetic (Scroll)                                 |                     |                     |                        |                        |
| Motor Output (Pole)  | kW                   | 4.8 (4)   | 6.0 (4)             | 7.2 (4)             | 4.8 (4) + 4.2 (2)      | 6.0 (4) + 4.2 (2)      |
| Heat Exchanger   |                      | Multi-Pass Cross-Finned Tube                      |                     |                     |                        |                        |
| Condenser Fan  |                      | Propeller Fan                                     |                     |                     |                        |                        |
| Air Flow Rate  | m <sup>3</sup> /min. | 138   | 172                 | 185                 | 130 + 140              | 130 + 140              |
|  | (cfm)                | (4,871)   | (6,072)             | (6,531)             | (4,589 + 4,942)        | (4,589 + 4,942)        |
|  | kW                   | 0.38 (8)  | 0.38 (8)            | 0.38 (8)            | 0.38 (8) x 2           | 0.38 (8) x 2           |
| Refrigerant Piping   | Liquid               | φ 9.53 - φ 12.7                                   | φ 9.53 - φ 12.7     | φ 12.7 - φ 15.88    | φ 12.7 - φ 15.8        | φ 12.7 - φ 15.88       |
|  | Gas                  | φ 19.05 - φ 22.2                                  | φ 22.2 - φ 25.4     | φ 25.4 - φ 28.6     | φ 25.4 - φ 28.6        | φ 28.6 - φ 31.75       |
| Min. Capacity of Indoor Units Connectable                      | 0.8 HP               | 0.8 HP  | 0.8 HP              | 0.8 HP              | 0.8 HP                 | 0.8 HP                 |
| Max. Number of Indoor Units Connectable                        | 13                   | 16  | 15                  | 20                  | 20                     | 20                     |
| Approximate Packing Measurement                                | m <sup>3</sup>       | 1.85  | 1.85                | 1.85                | 3.25                   | 3.25                   |

| Model  |                      | RAS-32FSN2  | RAS-34FSN2                      | RAS-36FSN2                      | RAS-38FSN2                      | RAS-40FSN2                      |
|--|----------------------|---|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Power Supply   |                      | AC 3 φ, 380-415V / 50Hz, 220V / 60Hz, 380V / 60Hz |                                 |                                 |                                 |                                 |
| Nominal Cooling Capacity *1)                                   | kW                   | 93.0  | 97.2                            | 102.3                           | 108.4                           | 114.5                           |
|  | kcal/h               | 80,000  | 83,700                          | 88,000                          | 93,300                          | 98,500                          |
|  | Btu/h                | 317,300   | 331,500                         | 349,000                         | 366,900                         | 390,700                         |
| Nominal Cooling Capacity *2)                                   | kW                   | 90.0  | 96.0                            | 101.0                           | 107.0                           | 113.0                           |
|  | kcal/h               | 77,400  | 82,600                          | 86,900                          | 92,100                          | 97,200                          |
|  | Btu/h                | 207,100   | 227,500                         | 244,600                         | 265,100                         | 285,600                         |
| Nominal Heating Capacity                                       | kW                   | 100.0   | 108.0                           | 113.0                           | 119.5                           | 127.0                           |
|  | kcal/h               | 86,000  | 92,900                          | 97,200                          | 102,800                         | 109,300                         |
|  | Btu/h                | 341,200   | 368,500                         | 385,600                         | 407,700                         | 433,300                         |
| Cabinet Color  |                      | Natural Gray                                      |                                 |                                 |                                 |                                 |
| Sound Pressure Level (Overall A Scale) (Night-Shift) 50 / 60Hz | dB                   | 62 (57) / 63 (58)                                 | 64 (59) / 64.5 (59.5)           | 64 (59) / 64.5 (59.5)           | 64 (59) / 64.5 (59.5)           | 64 (59) / 64.5 (59.5)           |
| Dimensions H x W x D   | mm                   | 1,670 x 2,540 x 830                               | 1,670 x 2,940 x 830             | 1,670 x 2,940 x 830             | 1,670 x 2,940 x 830             | 1,670 x 2,940 x 830             |
| Net Weight   | kg                   | 840   | 840                             | 840                             | 915                             | 915                             |
| Refrigerant (Flow Control)                                     |                      | R410A (Micro-Computer Control Expansion Valve)    |                                 |                                 |                                 |                                 |
| Refrigerant Charge   | kg                   | 28.5  | 28.5                            | 28.5                            | 30.0                            | 30.0                            |
| Compressor   |                      | Hermetic (Scroll)                                 |                                 |                                 |                                 |                                 |
| Motor Output   | kW                   | 4.8 (4) + 4.2 (2) + 6.5 (2) x 2                   | 6.0 (4) + 4.2 (2) + 6.5 (2) x 2 | 7.2 (4) + 4.2 (2) + 6.5 (2) x 2 | 2.4 (4) + 4.2 (2) + 6.5 (2) x 3 | 3.6 (4) + 4.2 (2) + 6.5 (2) x 3 |
| Heat Exchanger   |                      | Multi-Pass Cross-Finned Tube                      |                                 |                                 |                                 |                                 |
| Condenser Fan  |                      | Propeller Fan                                     |                                 |                                 |                                 |                                 |
| Air Flow Rate  | m <sup>3</sup> /min. | 135 + 175 + 165                                   | 210 + 200 + 172                 | 210 + 200 + 172                 | 210 + 200 + 172                 | 210 + 200 + 172                 |
|  | (cfm)                | (6,531 + 6,178 + 5,825)                           | (7,413 + 7,060 + 6,072)         | (7,413 + 7,060 + 6,072)         | (7,413 + 7,060 + 6,072)         | (7,413 + 7,060 + 6,072)         |
|  | kW                   | 0.38 (8) x 2 + 0.57 (8)                           | 0.38 (8) x 2 + 0.57 (8)         | 0.38 (8) x 2 + 0.57 (8)         | 0.38 (8) x 2 + 0.57 (8)         | 0.38 (8) x 2 + 0.57 (8)         |
| Refrigerant Piping   | Liquid               | φ 19.05 - φ 22.2                                  | φ 19.05 - φ 22.2                | φ 19.05 - φ 22.2                | φ 19.05 - φ 22.2                | φ 19.05 - φ 22.2                |
|  | Gas                  | φ 31.75 - φ 34.9                                  | φ 31.75 - φ 34.9                | φ 31.75 - φ 34.9                | φ 31.75 - φ 34.9                | φ 31.75 - φ 34.9                |
| Min. Capacity of Indoor Units Connectable                      | 0.8 HP               | 0.8 HP  | 0.8 HP                          | 0.8 HP                          | 0.8 HP                          | 0.8 HP                          |
| Max. Number of Indoor Units Connectable                        | 32                   | 34  | 34                              | 38                              | 38                              | 38                              |
| Approximate Packing Measurement                                | m <sup>3</sup>       | 4.95  | 4.95                            | 4.95                            | 4.95                            | 4.95                            |

| RAS-18FSN2  | RAS-20FSN2                  | RAS-22FSN2                  | RAS-24FSN2                  | RAS-26FSN2                 | RAS-28FSN2                 | RAS-30FSN2                      |
|---|-----------------------------|-----------------------------|-----------------------------|----------------------------|----------------------------|---------------------------------|
| AC 3 $\phi$ , 380-415V / 50Hz, 220V / 60Hz, 380V / 60Hz |                             |                             |                             |                            |                            |                                 |
| 52.3  | 58.1                        | 64.0                        | 69.8                        | 75.6                       | 81.4                       | 87.2                            |
| 45,000  | 50,000                      | 55,000                      | 60,000                      | 65,000                     | 70,000                     | 75,000                          |
| 178,400   | 196,200                     | 218,400                     | 238,200                     | 257,900                    | 277,700                    | 297,500                         |
| 50.4  | 56.0                        | 63.0                        | 69.0                        | 73.0                       | 80.0                       | 85.0                            |
| 43,300  | 48,100                      | 54,100                      | 59,300                      | 62,700                     | 63,800                     | 73,100                          |
| 172,000   | 191,100                     | 215,000                     | 235,400                     | 249,100                    | 273,000                    | 290,000                         |
| 56.0  | 63.0                        | 71.0                        | 77.5                        | 82.5                       | 90.0                       | 95.0                            |
| 46,100  | 54,100                      | 61,000                      | 66,600                      | 70,900                     | 77,400                     | 81,700                          |
| 191,100   | 215,000                     | 242,300                     | 264,400                     | 281,500                    | 307,100                    | 324,100                         |
| Natural Gray  |                             |                             |                             |                            |                            |                                 |
| Maximum   |                             |                             |                             |                            |                            |                                 |
| 62 (57)   | 82 (57)                     | 62 (57)                     | 62 (57) / 63 (58)           | 62 (57) / 63 (58)          | 62 (57) / 63 (58)          | 62 (57) / 63 (58)               |
| 1,670 x 1,850 x 830                                     | 1,670 x 1,850 x 830         | 1,673 x 1,850 x 830         | 1,670 x 1,850 x 830         | 1,670 x 2,940 x 830        | 1,670 x 2,940 x 830        | 1,670 x 2,940 x 830             |
| 540   | 540                         | 580                         | 580                         | 780                        | 780                        | 840                             |
| R410A (Micro-Computer Control Expansion Valve)          |                             |                             |                             |                            |                            |                                 |
| 19.5  | 19.5                        | 20.0                        | 20.0                        | 27.0                       | 27.0                       | 28.5                            |
| Hermetic (Scroll)                                       |                             |                             |                             |                            |                            |                                 |
| 3.6 (4) x 4.2 (2) x 2                                   | 4.8 (4) x 4.2 (2) x 2       | 4.8 (4) x 4.2 (2) x 6.5 (2) | 6.0 (4) x 4.2 (2) x 6.5 (2) | 4.8 (4) x 6.5 (2) x 2      | 6.0 (4) x 6.5 (2) x 2      | 3.6 (4) x 4.2 (2) x 6.5 (2) x 2 |
| Multi-Pass Cross-Finned Tube                            |                             |                             |                             |                            |                            |                                 |
| Propeller Fan   |                             |                             |                             |                            |                            |                                 |
| 185 x 175   | 185 x 175                   | 185 x 175                   | 185 x 175                   | 185 x 175 x 165            | 185 x 175 x 165            | 185 x 175 x 165                 |
| (6,531 x 6,178)   | (6,531 x 6,178)             | (6,531 x 6,178)             | (6,531 x 6,178)             | (6,531 x 6,178 x 5,825)    | (6,531 x 6,178 x 5,825)    | (6,531 x 6,178 x 5,825)         |
| 0.38 (8) x 2  | 0.38 (8) x 2                | 0.38 (8) x 2                | 0.38 (8) x 2                | 0.38 (8) x 2 + 0.57 (8)    | 0.38 (8) x 2 + 0.57 (8)    | 0.38 (8) x 2 + 0.57 (8)         |
| $\phi$ 15.88 - $\phi$ 19.05                             | $\phi$ 15.88 - $\phi$ 19.05 | $\phi$ 15.88 - $\phi$ 19.05 | $\phi$ 15.88 - $\phi$ 19.05 | $\phi$ 19.05 - $\phi$ 22.2 | $\phi$ 19.05 - $\phi$ 22.2 | $\phi$ 19.05 - $\phi$ 22.2      |
| $\phi$ 28.6 - $\phi$ 31.75                              | $\phi$ 28.6 - $\phi$ 31.75  | $\phi$ 28.6 - $\phi$ 31.75  | $\phi$ 28.6 - $\phi$ 31.75  | $\phi$ 31.75 - $\phi$ 34.9 | $\phi$ 31.75 - $\phi$ 34.9 | $\phi$ 31.75 - $\phi$ 34.9      |
| 0.8 HP  | 0.8 HP                      | 0.8 HP                      | 0.8 HP                      | 0.8 HP                     | 0.8 HP                     | 0.8 HP                          |
| 20  | 20                          | 20                          | 27                          | 29                         | 31                         | 32                              |
| 3.25  | 3.25                        | 3.25                        | 3.25                        | 4.95                       | 4.95                       | 4.95                            |

| RAS-42FSN2  | RAS-44FSN2                  | RAS-46FSN2                  | RAS-48FSN2                  |
|---|-----------------------------|-----------------------------|-----------------------------|
| AC 3 $\phi$ , 380-415V / 50Hz, 220V / 60Hz, 380V / 60Hz |                             |                             |                             |
| 119.5   | 125.6                       | 131.4                       | 137.2                       |
| 102,800   | 108,000                     | 113,000                     | 118,000                     |
| 407,700   | 428,600                     | 448,300                     | 468,100                     |
| 118.0   | 124.0                       | 130.0                       | 135.0                       |
| 101,600   | 106,600                     | 111,600                     | 116,100                     |
| 402,600   | 423,100                     | 443,600                     | 460,600                     |
| 132.0   | 138.0                       | 145.0                       | 150.0                       |
| 113,600   | 118,700                     | 124,700                     | 129,000                     |
| 450,400   | 470,900                     | 494,700                     | 511,800                     |
| Natural Gray  |                             |                             |                             |
| Maximum   |                             |                             |                             |
| 64 (50) / 64.5 (50.5)                                   | 64 (50) / 64.5 (50.5)       | 64 (50) / 64.5 (50.5)       | 64 (50) / 64.5 (50.5)       |
| 1,670 x 2,940 x 830                                     | 1,670 x 3,870 x 830         | 1,670 x 3,870 x 830         | 1,670 x 3,870 x 830         |
| 915   | 1,080                       | 1,080                       | 1,080                       |
| R410A (Micro-Computer Control Expansion Valve)          |                             |                             |                             |
| 35.0  | 35.0                        | 35.0                        | 35.0                        |
| Hermetic (Scroll)                                       |                             |                             |                             |
| 4.8 (4) x 4.2 (2) x 6.5 (2) x 3                         | 3.6 (4) x 6.5 (2) x 4       | 4.8 (4) x 6.5 (2) x 4       | 6.0 (4) x 6.5 (2) x 4       |
| Multi-Pass Cross-Finned Tube                            |                             |                             |                             |
| Propeller Fan   |                             |                             |                             |
| 210 x 200 x 172   | 170 x 2 x 160 x 2           | 170 x 2 x 160 x 2           | 170 x 2 x 160 x 2           |
| (7,413 x 7,060 x 6,072)                                 | (6,001 x 2 x 5,648 x 2)     | (6,001 x 2 x 5,648 x 2)     | (6,001 x 2 x 5,648 x 2)     |
| 0.38 (8) x 2 + 0.57 (8)                                 | 0.38 (8) x 2 + 0.57 (8) x 2 | 0.38 (8) x 2 + 0.57 (8) x 2 | 0.38 (8) x 2 + 0.57 (8) x 2 |
| $\phi$ 19.05 - $\phi$ 22.2                              | $\phi$ 19.05 - $\phi$ 22.2  | $\phi$ 19.05 - $\phi$ 22.2  | $\phi$ 19.35 - $\phi$ 22.2  |
| $\phi$ 38.1 - $\phi$ 41.3                               | $\phi$ 38.1 - $\phi$ 41.3   | $\phi$ 38.1 - $\phi$ 41.3   | $\phi$ 38.1 - $\phi$ 41.3   |
| 0.8 HP  | 0.8 HP                      | 0.8 HP                      | 0.8 HP                      |
| 42  | 42                          | 46                          | 46                          |
| 4.95  | 6.49                        | 6.49                        | 6.49                        |

#### NOTES:

- The above cooling and heating capacities show the capacities when the outdoor unit is operated with the 100% rating of indoor units, and are based on the standard JIS B8616-1984.

#### Cooling Operation Conditions

Indoor Air Inlet Temperature: 27 °C DB (80 °F WB)  
 \*1) 19.5 °C WB (66.2 °F WB)  
 \*2) 19.0 °C WB (66.2 °F WB)

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

#### Heating Operation Conditions

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

- The sound pressure is based on the following conditions.

1 Meter from the unit service cover surface, and 1.5 Meters from floor level.  
 The above data is based on the cooling mode. In case of heating mode, the sound pressure level increases by approximately 1-2 dB.  
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

# 4-Way Cassette Type

Extremely Silent Operation  
and Elegant Design  
Matching Any Interior



## Industry-leading Low Sound Pressure Level

Highly-advanced low sound pressure level, 30 dB(A) (1.0–2.0HP: at HIGH speed operation) is realized by adopting the new DC fan motor and the vibration-proof structure which protects the turbo fan from abnormal sound. The low sound pressure level is 2 dB lower than the conventional units and further quiet operation is achieved.

## Newly Developed "Wide Air Flow Wing"

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



## Simplified Panel Wiring

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

| General Data                            |   |                        |                           |                        |                             |                          |                           |
|---|---|------------------------|---------------------------|------------------------|-----------------------------|--------------------------|---------------------------|
| Model                                   | RCI-1.0FSN2   | RCI-1.5FSN2            | RCI-2.0FSN2               | RCI-2.5FSN2            | RCI-3.0FSN2                 | RCI-4.0FSN2              | RCI-5.0FSN2               |
| Indoor Unit Power Supply                | AC 1 φ, 220-240V / 50Hz, 220V / 60Hz                            |                        |                           |                        |                             |                          |                           |
| Nominal Cooling Capacity <sup>(1)</sup> | kW<br>2.9<br>Btu/h<br>9,900                                     | 4.1<br>3,559<br>14,100 | 5.8<br>5,390<br>19,800    | 7.3<br>9,300<br>25,000 | 8.3<br>7,100<br>28,200      | 11.6<br>10,000<br>39,700 | 14.5<br>12,500<br>49,600  |
| Nominal Cooling Capacity <sup>(2)</sup> | kW<br>2.8<br>Btu/h<br>9,600                                     | 4.0<br>3,400<br>13,600 | 5.6<br>4,300<br>19,100    | 7.1<br>4,800<br>24,200 | 8.0<br>6,900<br>27,300      | 11.2<br>9,600<br>38,200  | 14.0<br>12,000<br>47,800  |
| Nominal Heating Capacity                | kW<br>3.2<br>Btu/h<br>10,900                                    | 4.8<br>4,100<br>16,400 | 6.3<br>5,400<br>21,500    | 8.5<br>7,300<br>29,000 | 9.0<br>7,700<br>30,700      | 12.5<br>10,700<br>42,600 | 16.0<br>13,600<br>54,600  |
| Sound Pressure Level (Overall A Scale)  | dB  |                        | 30-26-27                  |                        | 32-30-28                    |                          | 38-35-33                  |
| Dimensions H x W x D                    | mm  |                        | 243 x 840 x 840           |                        |                             |                          | 298 x 840 x 840           |
| Net Weight                              | kg  |                        | 23                        |                        | 24                          |                          | 26                        |
| Refrigerant                             | R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance) |                        |                           |                        |                             |                          |                           |
| Air Flow Rate Hi/Mo/Lo                  | m <sup>3</sup> /min.<br>(cfm)                                   |                        | 13/12/11<br>(459/424/385) |                        | 15/13.5/12<br>(530/477/424) |                          | 16/14/13<br>(565/494/424) |
| Motor                                   | W   |                        | 56                        |                        | 20/17/15<br>(706/600/530)   |                          | 21/18/15<br>(741/635/530) |
| Connections                             | mm  |                        | φ 6.35 / φ 12.7           |                        | φ 6.35 / φ 15.88            |                          | φ 9.53 / φ 15.88          |
| Condensate Drain                        |   |                        |                           |                        | YP25                        |                          | φ 9.53 / φ 15.88(3)       |
| Approximate Packing Measurement         | m <sup>3</sup>  |                        | 0.22                      |                        |                             |                          | 0.26                      |
| Adjustable Panel Model                  |   |                        |                           |                        | P-k23WA                     |                          |                           |
| Color                                   |   |                        |                           |                        | Silky White                 |                          |                           |
| Dimensions H x W x D                    | mm  |                        |                           |                        | 37 x 950 x 950              |                          |                           |
| Net Weight                              | kg  |                        |                           |                        | 6                           |                          |                           |
| Approximate Packing Measurement         | m <sup>3</sup>  |                        |                           |                        | 0.09                        |                          |                           |

## NOTES:

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

## Cooling Operation Conditions

Indoor Air Inlet Temperature: 27°C DB (80°F DB)  
\*1) 19.5°C WB (67°F WB)  
\*2) 19.0°C WB (66.2°F WB)  
Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

## Heating Operation Conditions

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

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

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

3. \*3) In case of using R407C or R22, use the accessory adaptor and φ 10.05 piping.



## 2-Way Cassette Type

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

The length of the 3.0HP type is shortened from 1,320 mm to 960 mm, the height is also shortened, and the volume is reduced by about 50%. The reduced weight of 30 kg also makes handling much easier.

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

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



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

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

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

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



Silent operation and  
Low Height Design  
for Any Ceiling



| General Data                           |                           |   |                       |                        |                        |                          |                            |             |
|--|---------------------------|---|-----------------------|------------------------|------------------------|--------------------------|----------------------------|-------------|
| Model                                  |                           | RCB-1.0FSN2   | RCB-1.5FSN2           | RCB-2.0FSN2            | RCB-2.5FSN2            | RCB-3.0FSN2              | RCB-4.0FSN2                | RCB-5.0FSN2 |
| Indoor Unit Power Supply               |                           | AC 1 φ, 220-240V / 50Hz, 220V / 60Hz                            |                       |                        |                        |                          |                            |             |
| Nominal Cooling Capacity *1)           | kW                        | 2.9   | 4.1                   | 5.8                    | 7.3                    | 8.3                      | 11.6                       | 14.5        |
|  | kcal/h                    | 2,500   | 3,550                 | 5,000                  | 6,300                  | 7,100                    | 10,000                     | 12,500      |
|  | Btu/h                     | 9,900   | 14,100                | 19,800                 | 25,000                 | 28,200                   | 39,700                     | 49,600      |
| Nominal Cooling Capacity *2)           | kW                        | 2.8   | 4.0                   | 5.6                    | 7.1                    | 8.0                      | 11.2                       | 14.0        |
|  | kcal/h                    | 2,400   | 3,400                 | 4,800                  | 6,100                  | 6,900                    | 9,600                      | 12,000      |
|  | Btu/h                     | 9,600   | 13,600                | 19,100                 | 24,200                 | 27,300                   | 38,200                     | 47,800      |
| Nominal Heating Capacity               | kW                        | 3.2   | 4.8                   | 6.3                    | 8.5                    | 9.0                      | 12.5                       | 16.0        |
|  | kcal/h                    | 2,800   | 4,100                 | 5,400                  | 7,300                  | 7,700                    | 10,700                     | 13,800      |
|  | Btu/h                     | 10,900  | 16,400                | 21,500                 | 29,000                 | 30,700                   | 42,600                     | 54,600      |
| Sound Pressure Level (Overall A Scale) | dB                        | 34-32-30  | 35-32-30              |                        |                        | 39-34-31                 | 40-36-33                   | 43-40-36    |
| Dimensions H x W x D                   | mm                        | 298 x 860 x 620   |                       |                        |                        |                          | 298 x 1,420 x 620          |             |
| Net Weight                             | kg                        | 27  |                       |                        | 30                     |                          | 48                         |             |
| Refrigerant                            |                           | R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance) |                       |                        |                        |                          |                            |             |
| Air Flow Rate Hi/Lo/0                  | m <sup>3</sup> /min (cfm) | 10/9/6 (353/318/282)  | 13/11/9 (459/388/318) | 15/13/11 (530/459/388) | 19/16/14 (671/565/494) | 29/24/21 (1,024/847/742) | 34/29/25 (1,201/1,024/883) |             |
| Motor                                  | W                         | 35  |                       |                        | 55                     |                          | 35 x 2                     | 55 x 2      |
| Connections                            |                           | Flare-Nut Connection (With Flare Nuts)                          |                       |                        |                        |                          |                            |             |
| Liquid / Gas                           | mm                        | φ 6.35 / φ 12.7   |                       |                        | φ 9.53 / φ 15.88       |                          | φ 9.53 / φ 15.88 *2)       |             |
| Condensate Drain                       |                           | VP25  |                       |                        |                        |                          |                            |             |
| Approximate Picking Measurement        | m <sup>3</sup>            | 0.23  |                       |                        |                        |                          | 0.37                       |             |
| Adaptable Panel Model                  |                           | P-N23DWA  |                       |                        |                        |                          | P-N46DWA                   |             |
| Color                                  |                           | Silky White   |                       |                        |                        |                          |                            |             |
| Dimensions H x W x D                   | mm                        | 30 x 1,100 x 710  |                       |                        |                        |                          | 30 x 1,660 x 710           |             |
| Net Weight                             | kg                        | 6   |                       |                        |                        |                          | 8                          |             |
| Approximate Picking Measurement        | m <sup>3</sup>            | 0.10  |                       |                        |                        |                          | 0.15                       |             |

#### NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard E6616.

#### Cooling Operation Conditions

Indoor Air Inlet Temperature:

27°C DB (80°F DB)

\*1) 19.5°C WB (67°F WB)

\*2) 19.0°C WB (66.2°F WB)

Outdoor Air Inlet Temperature:

35°C DB (95°F DB)

#### Heating Operation Conditions

Indoor Air Inlet Temperature:

20°C DB (68°F DB)

Outdoor Air Inlet Temperature:

7°C DB (45°F DB)

6°C WB (43°F WB)

Piping Length: 7.5 Meters

Piping Lift: 0 Meter

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

1.5 Meters Beneath the Unit. Voltage of the power source for the indoor fan motor is 220V. In case of the power source of 240V.

the sound pressure level increases by about 1dB. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

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

# In-the-ceiling Type

Silent Operation and Low  
Height Design for Limited  
Space Inside of the Ceiling

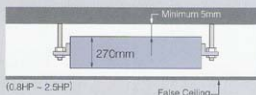


Broader range of external static pressure. Flexibly supports a wide range of installation conditions at site, e.g. longer ducts

In addition to the standard Hi-Me-Lo, the speed-up tap can be set by remote control. Available for external static pressure of up to 80 Pa for 0.8-2.5 HP and 170 Pa for 3-5 HP.

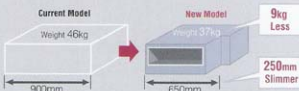
## Space-saving Design

Less than 270 mm in height, this unit can be fit into practically any previously existing false ceiling or formerly ducted space without substantial modification (0.8-2.5HP).



## 3.0HP model downsized

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



| General Data                            |                           |   |                        |                        |                        |                                      |                        |                             |                          |   |                           |
|---|---------------------------|---|------------------------|------------------------|------------------------|--------------------------------------|------------------------|-----------------------------|--------------------------|---|---------------------------|
| Model                                   |                           | RPI-0.8FSN2   | RPI-1.0FSN2            | RPI-1.5FSN2            | RPI-2.0FSN2            | RPI-2.5FSN2                          | RPI-3.0FSN2            | RPI-4.0FSN2                 | RPI-5.0FSN2              | RPI-6FSN                                      | RPI-10FSN                 |
| Indoor Unit Power Supply                |                           | AC 1 φ, 220-240V / 50Hz, 220V / 60Hz                            |                        |                        |                        |                                      |                        |                             |                          | AC 3 φ 4W, 380-415V / 50Hz, 380V / 60Hz       |                           |
| Nominal Cooling Capacity <sup>(1)</sup> | kW<br>kcal/h<br>Btu/h     | 2.3<br>2,000<br>7,900   | 2.9<br>2,500<br>9,900  | 4.1<br>3,550<br>14,100 | 5.8<br>5,000<br>19,800 | 7.3<br>6,300<br>25,200               | 8.3<br>7,100<br>28,200 | 11.6<br>10,000<br>39,700    | 14.5<br>12,500<br>49,600 | 23.3<br>20,000<br>79,400                      | 28.1<br>25,000<br>99,200  |
| Nominal Cooling Capacity <sup>(2)</sup> | kW<br>kcal/h<br>Btu/h     | 2.2<br>1,900<br>7,500   | 2.8<br>2,400<br>9,600  | 4.0<br>3,400<br>13,000 | 5.6<br>4,800<br>19,100 | 7.1<br>6,100<br>24,200               | 8.0<br>8,900<br>27,300 | 11.2<br>9,600<br>38,200     | 14.0<br>12,000<br>47,800 | 22.4<br>19,300<br>76,400                      | 28.0<br>24,100<br>95,500  |
| Nominal Heating Capacity                | kW<br>kcal/h<br>Btu/h     | 2.5<br>2,100<br>8,500   | 3.2<br>2,800<br>10,900 | 4.8<br>4,100<br>16,400 | 6.3<br>5,400<br>21,500 | 8.5<br>7,500<br>29,300               | 9.0<br>7,700<br>30,700 | 12.5<br>10,700<br>42,600    | 16.0<br>13,600<br>54,600 | 26.0<br>21,500<br>85,300                      | 31.5<br>27,100<br>107,500 |
| Sound Pressure Level (Overall A Scale)  | dB                        | 35-33-31  |                        |                        |                        | 36-34-32                             |                        | 42-39-35                    |                          | 45-42-37                                      |                           |
| Dimensions H x W x D                    | mm                        | 270 x (850/75) x 720  |                        |                        | 270 x (900/75) x 720   |                                      | 350 x (650/75) x 800   |                             | 350 x (1,300/75) x 800   |   | 470 x 1,250 x 1,123       |
| Net Weight                              | kg                        | 26  |                        |                        |                        | 35                                   |                        | 37                          |                          | 46  |                           |
| Refrigerant                             |                           | R410A / R427C / R22 (Nitrogen-Charged for Corrosion-Resistance) |                        |                        |                        |                                      |                        |                             |                          |   |                           |
| Air Flow Rate Hi/Me/Lo                  | m <sup>3</sup> /min (cfm) | 8/7/6 (283/247/212)   |                        | 13/11/9 (459/383/319)  |                        | 15/13/11 (530/459/388)               |                        | 16/14/12 (555/484/424)      |                          | 27/23/13 (954/812/671)                        |                           |
| External Pressure                       |                           | 50 (80-30) <sup>(3)</sup>                                       |                        |                        |                        | 50 (80-30) <sup>(3)</sup>            |                        | 120 (170-60) <sup>(4)</sup> |                          | 220 (119) / 260 (139) <sup>(4)</sup>          |                           |
| Motor                                   | W                         | 60  |                        |                        |                        | 75                                   |                        | 150                         |                          | 290   |                           |
| Connections                             |                           |   |                        |                        |                        | Hare-Nut Connection (With Hare Nuts) |                        |                             |                          | Brazing Connection                            |                           |
|   | Liquid                    | φ 6.35  |                        |                        |                        | φ 6.35                               |                        | φ 9.53                      |                          | φ 9.53  |                           |
|   | Gas                       | φ 12.7  |                        |                        |                        | φ 15.88                              |                        | φ 15.88                     |                          | φ 15.88 <sup>(5)</sup>                        |                           |
| Condensate Drain                        |                           |   |                        |                        |                        | VP25                                 |                        |                             |                          | φ 10.0 <sup>(5)</sup> / φ 22.2 <sup>(6)</sup> |                           |
| Approximate Picking Measurement         | m <sup>3</sup>            | 0.21  |                        |                        |                        | 0.27                                 |                        | 0.29                        |                          | 0.38  |                           |
|   |                           |   |                        |                        |                        |                                      |                        | 0.52                        |                          | 1.06  |                           |

## NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard 88616.

## Cooling Operation Conditions

Indoor Air Inlet Temperature:

27°C DB (80°F DB)

18.5°C WB (67°F WB)

19.0°C WB (66.2°F WB)

Outdoor Air Inlet Temperature:

35°C DB (95°F DB)

35°C DB (95°F DB)

## Heating Operation Conditions

Indoor Air Inlet Temperature:

20°C DB (68°F DB)

7°C DB (45°F DB)

6°C WB (43°F WB)

Piping Length: 7.5 Meters

Piping Lift: 9 Meter

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

0.8-5.0FSN2: Voltage of the power source for the indoor fan motor is 220V. In case of the power source of 240V, the sound pressure level increases by about 1 or 2dB.

8 and 13FSN: Voltage of the power source for the indoor fan motor is 380V. In case of the power source of 415V, the sound pressure level increases by about 2dB.

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

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

5. <sup>(5)</sup> In case of using R407C or R22, use the accessory adaptor and φ 9.05 piping. <sup>(6)</sup> In case of using R407C or R22, use the accessory reducer and φ 12.7 piping.

<sup>(7)</sup> In case of using R407C or R22, use the accessory reducer and φ 25.4 piping. <sup>(8)</sup> In case of using R407C or R22, use the accessory reducer and φ 28.6 piping.

# Ceiling Type

## Amenity improved by auto-louver at air opening

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



## Simple Installation and Maintenance

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

## Noise and vibration drastically reduced by our original design

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

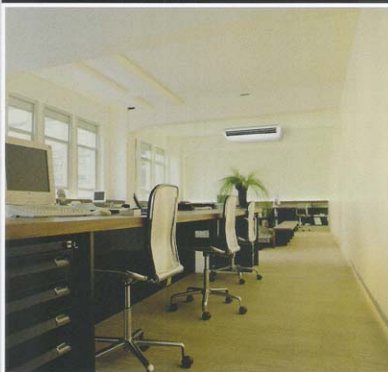


## Each part of the system is fully functional

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



Quiet Operation,  
Easy Installation and  
Space-Saving Slim Design



| General Data                            |        |   |                            |                                |                             |                   |
|---|--------|---|----------------------------|--------------------------------|-----------------------------|-------------------|
| Model                                   |        | RPC-2.0FSN2   | RPC-2.5FSN2                | RPC-3.0FSN2                    | RPC-4.0FSN2                 | RPC-5.0FSN2       |
| Indoor Unit Power Supply                |        | AC 1 $\phi$ , 220-240V / 50Hz, 220V / 60Hz                      |                            |                                |                             |                   |
| Nominal Cooling Capacity <sup>(1)</sup> | kW     | 5.8   | 7.3                        | 8.3                            | 11.8                        | 14.5              |
|   | kcal/h | 5,000   | 6,300                      | 7,100                          | 10,000                      | 12,500            |
|   | Btu/h  | 16,800  | 25,000                     | 28,200                         | 39,700                      | 49,500            |
| Nominal Cooling Capacity <sup>(2)</sup> | kW     | 5.6   | 7.1                        | 8.0                            | 11.2                        | 14.0              |
|   | kcal/h | 4,800   | 6,100                      | 6,900                          | 9,600                       | 12,300            |
|   | Btu/h  | 16,100  | 24,200                     | 27,300                         | 38,200                      | 47,800            |
| Nominal Heating Capacity                | kW     | 6.3   | 8.5                        | 9.0                            | 12.5                        | 16.0              |
|   | kcal/h | 5,400   | 7,300                      | 7,700                          | 10,700                      | 13,900            |
|   | Btu/h  | 21,500  | 29,000                     | 30,700                         | 42,600                      | 54,500            |
| Sound Pressure Level (Overall A Scale)  |        | 40-37-34  |                            |                                | 44-41-38                    |                   |
| Cabinet Color                           |        | Silky White   |                            |                                |                             |                   |
| Dimensions H x W x D                    |        | 210 x 1,100 x 670   |                            | 210 x 1,320 x 670              |                             | 270 x 1,580 x 670 |
| Net Weight                              |        | 26  |                            | 30                             | 34                          | 42                |
| Refrigerant                             |        | R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance) |                            |                                |                             |                   |
| Air Flow Rate Hi/Lo/Le                  |        | 14/12/10<br>(-94/42/4/353)                                      | 18/15/12<br>(63/65/30/424) | 25/21/18<br>(88/3/42/636)      | 33/28/23<br>(1,165/989/812) |                   |
| Motor                                   |        | 35  |                            | 50                             | 95                          | 135               |
| Connections                             |        | Flare-Nut Connection (With Flare Nuts)                          |                            |                                |                             |                   |
| Liquid / Gas                            |        | $\phi$ 9.53 / $\phi$ 15.88                                      |                            | $\phi$ 9.53 / $\phi$ 15.88 (3) |                             |                   |
| Condensate Drain                        |        | VP20  |                            |                                |                             |                   |
| Approximate Piping Measurement          |        | 0.30  |                            | 0.36                           | 0.43                        | 0.50              |
| Standard Accessories                    |        | Mounting Bracket  |                            |                                |                             |                   |

### NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard 88616.

Cooling Operation Conditions

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

\*1) 19.5°C WB (67°F WB)

\*2) 19.0°C WB (66.2°F WB)

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

Heating Operation Conditions

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

Outdoor Air Inlet Temperature: 7°C DB (45°F DB)

6°C WB (43°F WB)

Piping Length: 7.5 Meters

Piping Lift: 0 Meter

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

Voltage of the power source for the indoor fan motor is 220V, in case of the power source of 240V, the sound pressure level increases by about 1dB.

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

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

## Wall Type

Industry-leading  
Compactness  
Flat Panel At The Front

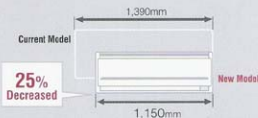


## User Friendly

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

## Top-Class Compact and Light Weight Design

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



## NEW LINE-UP

RPK-1.0FSNSH2  
RPK-1.5FSNSH2 (Built-to-order)

## Reducing Noise by Adopting Distinctive Technology

You can select the new lineup of indoor unit wall type without expansion valve and electronic expansion valve kit according to your preference. The continuous refrigerant running noise from the indoor unit can be reduced by installing the expansion valve away from the living room such as in a false ceiling of the hallway.

| General Data                            |   |                                      |                          |   |                           |                           |               |
|---|---|--------------------------------------|--------------------------|---|---------------------------|---------------------------|---------------|
| Model                                   | RPK-1.0FSNSM2   |                                      | RPK-1.5FSNSM2            | RPK-2.0FSNSM2                             | RPK-2.5FSNSM2             | RPK-3.0FSNSM2             | RPK-4.0FSNSM2 |
| Indoor Unit Power Supply                |   | AC 1 φ, 220-240V / 50Hz, 220V / 60Hz |                          |   |                           |                           |               |
| Nominal Cooling Capacity <sup>(1)</sup> | kW  | 2.9                                  | 4.1                      | 5.8                                       | 7.3                       | 8.3                       | 11.6          |
|   | kcal/h  | 2,500                                | 3,550                    | 5,000                                     | 6,300                     | 7,100                     | 10,000        |
|   | Btu/h   | 9,900                                | 14,100                   | 19,300                                    | 25,000                    | 28,200                    | 39,700        |
| Nominal Cooling Capacity <sup>(2)</sup> | kW  | 2.8                                  | 4.0                      | 5.6                                       | 7.1                       | 8.0                       | 11.2          |
|   | kcal/h  | 2,400                                | 3,400                    | 4,800                                     | 6,100                     | 6,900                     | 9,600         |
|   | Btu/h   | 9,600                                | 13,600                   | 19,100                                    | 24,200                    | 27,300                    | 38,200        |
| Nominal Heating Capacity                | kW  | 3.2                                  | 4.8                      | 6.3                                       | 8.5                       | 9.0                       | 12.5          |
|   | kcal/h  | 2,800                                | 4,100                    | 5,400                                     | 7,300                     | 7,700                     | 10,700        |
|   | Btu/h   | 10,900                               | 16,400                   | 21,500                                    | 29,000                    | 30,700                    | 42,600        |
| Sound Pressure Level (Overall A Scale)  | dB  | 36-36-34                             |                          | 40-38-36                                  |                           | 43-40-37                  |               |
| Cabinet Color                           | White   |                                      |                          |   |                           |                           |               |
| Dimensions H x W x D                    | mm  | 280 x 780 x 210                      |                          | 295 x 1,030 x 208                         |                           | 333 x 1,150 x 245         |               |
| Net Weight                              | kg  | 10                                   |                          | 12  |                           | 18                        |               |
| Refrigerant                             | R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance) |                                      |                          |   |                           |                           |               |
| Air Flow Rate Hi/Me/Lo                  | m <sup>3</sup> /min.<br>(cfm)                                   | 10/6/7<br>(353/283/247)              | 11/10/9<br>(388/353/318) | 14/12/10<br>(494/424/353)                 | 17/16/14<br>(600/565/494) | 22/20/17<br>(777/706/600) |               |
| Motor                                   | W   | 20                                   |                          | 30  |                           |                           |               |
| Connections                             | Flare-Nut Connection (With Flare Nuts)                          |                                      |                          |   |                           |                           |               |
| Liquid / Gas                            | mm  | φ 6.35 / φ 12.7                      |                          | φ 6.35 / φ 15.88 or φ 12.7 <sup>(3)</sup> |                           | φ 9.53 / φ 15.88          |               |
| Condensate Drain                        | VP16  |                                      |                          |   |                           |                           |               |
| Approximate Piping Measurement          | m <sup>3</sup>  | 0.07                                 |                          | 0.11                                      |                           | 0.13                      |               |
| Standard Accessories                    | Wall Mounting Bracket   |                                      |                          |   |                           |                           |               |

## NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8610.

## Cooling Operation Conditions

Indoor Air Inlet Temperature:  
27°C DB (80°F DB)  
\*1) 19.5°C WB (67°F WB)  
\*2) 19.0°C WB (66.2°F WB)  
Outdoor Air Inlet Temperature:  
35°C DB (95°F DB)

## Heating Operation Conditions

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

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

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

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

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

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

# Floor Type

## Space-saving slim unit, only 220 mm in depth.

Slim line design only 220 mm in depth, allowing it to be installed without spoiling the style or beauty of the room.

## Effective Use of Space by Window

With a height of 630 mm, may be installed by a window leaving plenty of window space. Best installed in a perimeter zone.

# Floor Concealed Type

Compact Design for  
Limited Space Inside of  
Perimeter Wall



## So compact that it fits into even a tiny space.

Special emphasis placed on interior design compatibility as well as space saving design, allowing it to fit perfectly into the space below a bay window.



Slim Design for Perimeter  
Zone Air Conditioning



| General Data                            |                               | Floor Type  |                          | Floor Concealed Type     |                          |
|---|-------------------------------|---|--------------------------|--------------------------|--------------------------|
| Model                                   |                               | RPF-1.0FSN2E  | RPF-1.5FSN2E             | RPF-1.0FSN2E             | RPF-1.5FSN2E             |
| Indoor Unit Power Supply                |                               | AC 1 φ, 220-240V / 50Hz, 220V / 50Hz                            |                          |                          |                          |
| Nominal Cooling Capacity <sup>(1)</sup> | KW                            | 2.9   | 4.1                      | 2.9                      | 4.1                      |
|   | kcal/h                        | 2,500   | 3,550                    | 2,500                    | 3,550                    |
| Nominal Cooling Capacity <sup>(2)</sup> | Btu/h                         | 9,900   | 14,100                   | 9,900                    | 14,100                   |
|   | KW                            | 2.8   | 4.0                      | 2.8                      | 4.0                      |
| Nominal Cooling Capacity <sup>(2)</sup> | kcal/h                        | 2,400   | 3,400                    | 2,400                    | 3,400                    |
|   | Btu/h                         | 9,600   | 13,600                   | 9,600                    | 13,600                   |
| Nominal Heating Capacity                | KW                            | 3.2   | 4.8                      | 3.2                      | 4.8                      |
|   | kcal/h                        | 2,800   | 4,100                    | 2,800                    | 4,100                    |
| Nominal Heating Capacity                | Btu/h                         | 10,900  | 16,400                   | 10,900                   | 16,400                   |
| Sound Pressure Level (Overall A Scale)  | dB                            | 35-32-29  | 38-35-31                 | 35-32-29                 | 38-35-31                 |
| Cabinet Color                           |                               | Spring White  |                          | ---                      |                          |
| Dimensions H x W x D                    | mm                            | 630 x 1,045 x 220   | 630 x 1,170 x 220        | 620 x 948 x 220          | 620 x 973 x 220          |
| Net Weight                              | kg                            | 25  | 28                       | 19                       | 23                       |
| Refrigerant                             |                               | R410A / R407C / R22 (Nitrogen-Charged for Corrosion-Resistance) |                          |                          |                          |
| Air Flow Rate Hi/Me/Lo                  | m <sup>3</sup> /min.<br>(cfm) | 8.5/7.6<br>(300/247/212)  | 12/10/9<br>(424/353/318) | 8.5/7.6<br>(300/247/212) | 12/10/9<br>(424/353/318) |
| Motor                                   | W                             | 20  | 23                       | 20                       | 28                       |
| Connections                             |                               | Flare-Nut Connection (With Flare Nuts)                          |                          |                          |                          |
| Liquid / Gas                            | mm                            | φ 6.35 / φ 12.7   |                          |                          |                          |
| Condensate Drain                        |                               | 18.5 OD   |                          |                          |                          |
| Approximate Packing Measurement         | m <sup>3</sup>                | 0.28  | 0.29                     | 0.20                     | 0.23                     |

### NOTES:

1. The nominal cooling capacity is the combined capacity of the Hi/ACHI standard split system, and is based on the JIS standard DBB16.

#### Cooling Operation Conditions

Indoor Air Inlet Temperature:  
 27°C DB (80°F DB)  
 19.5°C WB (67°F WB)  
 19.0°C WB (66.2°F WB)  
 Outdoor Air Inlet Temperature:  
 35°C DB (95°F DB)

#### Heating Operation Conditions

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

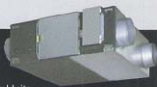
2. The sound pressure level is based on following conditions.

Floor Type: 1.5 Meters from the Unit and 1.5 Meters from Floor Level. Floor Concealed Type: 1.5 Meters from the Unit and 1.5 Meters from the Floor Level.  
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

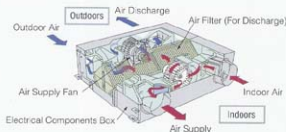


# Total Heat Exchanger

Provides a Comfortable Environment by Control Interlocking with Air Conditioning Units



## Structure



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

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

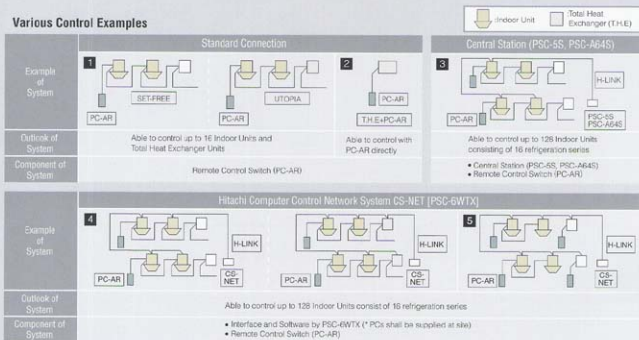
## Automatic Selection of Most Suitable Ventilation Mode

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

## Fixed Type Heat Exchanging Element

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

## Various Control Examples



| General Data   |      |                                     |                       |                           |
|--|------|-------------------------------------|-----------------------|---------------------------|
| Model  |      | KPI-2521                            | KPI-5021              | KPI-10021                 |
| Indoor Unit Power Supply   |      |                                     |                       |                           |
|  |      | AC 1φ, 220-240V / 50Hz, 220V / 60Hz |                       |                           |
| Air Flow Rate  | 50Hz | m <sup>3</sup> /h                   | 250/250/165           | 500/500/350               |
|  | 60Hz | m <sup>3</sup> /h                   | 250/250/150           | 500/500/300               |
| External Pressure *1)  | 50Hz | Pa                                  | 65/40/20              | 150/80/30                 |
|  | 60Hz | Pa                                  | 100/50/20             | 200/60/20                 |
| Sound Pressure Level (Overall A Scale) at 1.5m from the unit under *2) *3) | 50Hz | dB                                  | 26.5-27.5/25-26/21-22 | 32.5-33.5/30-31/23.5-24.5 |
|  | 60Hz | dB                                  | 28.5/25.5/21          | 32.5/23.5/23              |
| Dimensions H x W x D   |      | mm                                  | 275 x 735 x 780       | 317 x 1,016 x 888         |
| Net Weight   |      | kg                                  | 21                    | 33                        |
| Approximate Packing Measurement  |      | m <sup>3</sup>                      | 0.26                  | 0.46                      |

### NOTES:

\*1. Use it under the following conditions. KPI-0021: 29Pa or more, KPI-10021: 49Pa or more

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

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

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



## Indoor Units

### 4-Way Cassette Type

| HP                                | 1.0 ~ 2.5   | 3.0 ~ 5.0 |
|-----------------------------------|-------------|-----------|
| Air Panel                         | P-N23WA     |           |
| Receiver Kit for Wireless Control | PC-ALH      |           |
| 3-Way Outlet Parts Set            | PI-23LS5    |           |
| Kit for Deodorant Filter          |             |           |
| Deodorant Filter                  | F-23L4-D    | F-46L4-D  |
| Filter Box                        | B-23H4      |           |
| Antibacterial Long-life Filter    | F-23L4-KS   | F-23L4-K  |
| Fresh Air Intake Kit *1           | OACI-232    |           |
| T-Pipe Connection Kit *2          | TKCI-232    |           |
| Duct Adapter *3                   | PD-75 (φ75) |           |

### 2-Way Cassette Type

| HP                                | 1.0 ~ 3.0 | 4.0 and 5.0 |
|-----------------------------------|-----------|-------------|
| Air Panel                         | P-N23DWA  | P-N46DWA    |
| Receiver Kit for Wireless Control | PC-ALHD   |             |
| Kit for Deodorant Filter          |           |             |
| Deodorant Filter                  | F-23LD4-D | F-46LD4-D   |
| Filter Box                        | B-23HD4   | B-46HD4     |
| Antibacterial Long-life Filter    | F-23LD4-K | F-46LD4-K   |
| Fresh Air Intake Kit *1           | OACID-231 | OACID-461   |
| Box Connection Kit *4             | TBCID-1   |             |

### In-the-ceiling Type

| HP                                | 0.8 ~ 1.5 | 2.0 and 2.5 | 3.0      | 4.0     | 5.0     | 8 and 10  |
|-----------------------------------|-----------|-------------|----------|---------|---------|-----------|
| Long-Life Filter Kit              |           |             |          |         |         |           |
| Long-Life Filter                  | F-15L13C  | F-23L13C    | F-23L13  | F-34L13 | F-46L13 | -         |
| Filter Box                        | B-15M13C  | B-23M13C    | B-23M13  | B-34M13 | B-46M13 | -         |
| Drain-up Mechanism Kit            | Standard  | DUPI-132C   | DUPI-162 |         |         | DU-M280PS |
| Receiver Kit for Wireless Control | PC-ALHZ   |             |          |         |         |           |

### Floor and Ceiling Types

| HP                                | RPF(I)      | RPC       |
|-----------------------------------|-------------|-----------|
|                                   | 1.0 and 1.5 | 2.0 ~ 5.0 |
| Receiver Kit for Wireless Control | PC-ALHZ     | PC-ALHP   |

#### NOTES:

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

## Multi-kits

| Applicable Outdoor Unit                         |                                   | RAS-8FSN2<br>RAS-10FSN2 | RAS-12FSN2<br>RAS-14FSN2<br>RAS-16FSN2 | RAS-18FSN2<br>RAS-20FSN2<br>RAS-22FSN2<br>RAS-24FSN2 | RAS-26FSN2<br>RAS-28FSN2<br>RAS-30FSN2<br>RAS-32FSN2 | RAS-34FSN2<br>RAS-36FSN2<br>RAS-38FSN2<br>RAS-40FSN2 | RAS-42FSN2<br>RAS-44FSN2<br>RAS-46FSN2<br>RAS-48FSN2 |
|---|-----------------------------------|-------------------------|--|--|--|--|--|
| Line Branch                                     | First Branch                      | MW-302AN                |  |  |  |  |  |
|   | First Branch<br>or<br>Last Branch | MW-102AN                | MW-162AN                               | MW-242AN   |  |  |  |
| Header Branch<br>(First Branch,<br>Last Branch) | 4 Distributions                   | MH-84AN for 5~8 HP      |  |  |  |  |  |
|   | 8 Distributions                   | MH-108AN for 5~10 HP    |  |  |  |  |  |

## Control System

|                                 |                          | RCI-FSN2 | RCD-FSN2 | RPI-FSN(2) | RPC-FSN2 | RPK-FSN2M2 | RPF(I)-FSN2E | KPI |
|---------------------------------|--------------------------|----------|----------|------------|----------|------------|--------------|-----|
| Remote Control Switch           | PC-AR*1 (Without cable)  | ●        | ●        | ●          | ●        | ●          | ●            | ●   |
| Wireless Remote Control Switch  | PC-LH3A                  | ●        | ●        | ●          | ●        | ●          | ●            | ×   |
| Half-size Remote Control Switch | PC-ARH*2                 | ●        | ●        | ●          | ●        | ●          | ●            | ×   |
| 7-Day Timer                     | PSC-A1T*3                | ●        | ●        | ●          | ●        | ●          | ●            | ×   |
| Central Station                 | PSC-5S, PSC-A64S*4       | ●        | ●        | ●          | ●        | ●          | ●            | ●   |
| Centralized ON/OFF Controller   | PSC-A16RS                | ●        | ●        | ●          | ●        | ●          | ●            | ●   |
| Remote Control Cable            | PRC-5K,10K,15K for PC-AR | ●        | ●        | ●          | ●        | ●          | ●            | ●   |
| 3P Connector Cable              | PCC-1A                   | ●        | ●        | ●          | ●        | ●          | ●            | ●   |
| Remote Sensor                   | THM-R2A                  | ●        | ●        | ●          | ●        | ×          | ●            | ×   |
| P/C Network System CS-NET       | PSC-6WTX                 | ●        | ●        | ●          | ●        | ●          | ●            | ×   |

#### NOTES:

- \*1. As the PC-AR does not include a remote control cable, prepare one in the field, or use PRC-5K, 10K, or 15K.
- \*2. Make sure that it is used with PC-AR or CS-NET.
- \*3. Scheduled operation is possible by using in combination with Central Station, Remote Control Switch and Centralized ON/OFF Controller.
- \*4. Supply 220V or 240V.

● : Applicable  
 × : Not Applicable

# Network Systems

## H-LINK . . .

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

### Flexible Wiring Routes

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

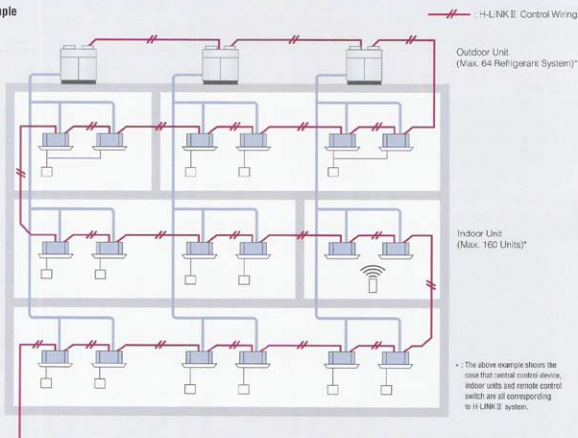
### Regardless of Multi-Split System for Buildings or Packaged System for Commercial Use

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

## H-LINK II

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

### Example



### CS-NET



Central Station  
PSC-6S  
PSC-A64S



Centralized ON/OFF  
Controller  
PSC-A16RS



7 Day Timer  
PSC-A1T

### PSC-6WTX



HARC 40

### BMS



HARC 70P1 HC-A64BNP

## Compare with H-LINK System

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

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

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

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

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

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

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

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

## System Configuration

| Outdoor Unit  | SET-FREE PSN(1) Series<br>H-LINK |         |           | SET-FREE PSN2 Series<br>H-LINK II |         |           |
|---|----------------------------------|---------|-----------|-----------------------------------|---------|-----------|
|   | H-LINK II and H-LINK             | H-LINK  | H-LINK II | H-LINK II and H-LINK              | H-LINK  | H-LINK II |
| Indoor Unit   |                                  |         |           |                                   |         |           |
| Remote Control Switch   |                                  |         |           |                                   |         |           |
| Setting Range of Refrigerant Group <sup>(1)</sup>                 | 0 to 15                          |         |           | 0 to 15                           |         |           |
| Setting Range of Address <sup>(1)</sup>                           | 0 to 15                          | 0 to 15 | 0 to 15   | 0 to 15                           | 0 to 15 | 0 to 63   |
| Automatic Reset of Setting Temperature <sup>(2)</sup>             | ×                                | ●       | ●         | ×                                 | ●       | ●         |
| Operation Lock <sup>(2)</sup>                                     | ×                                | ●       | ●         | ×                                 | ●       | ●         |
| Limitation of Setting Temperature Range <sup>(2)</sup>            | ×                                | ●       | ●         | ×                                 | ●       | ●         |
| ON / OFF Timer Setting (72hr) <sup>(2)</sup>                      | ×                                | ●       | ●         | ×                                 | ●       | ●         |
| Different Operation Mode Indication <sup>(3)</sup>                | ×                                | ×       | ●         | ×                                 | ×       | ●         |
| Indoor Unit Hot-Start Indication <sup>(3)</sup>                   | ×                                | ×       | ●         | ×                                 | ×       | ●         |
| Change of Indoor Unit Ref. Group No. and Address <sup>(3)</sup>   | ×                                | ×       | ●         | ×                                 | ×       | ●         |
| Outdoor Unit Comp. Pre-heating Indication / Cancel <sup>(2)</sup> | ×                                | ×       | ×         | ×                                 | ×       | ●         |
| Emergency Operation from Remote Control Switch <sup>(4)</sup>     | ×                                | ×       | ×         | ×                                 | ×       | ●         |

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

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

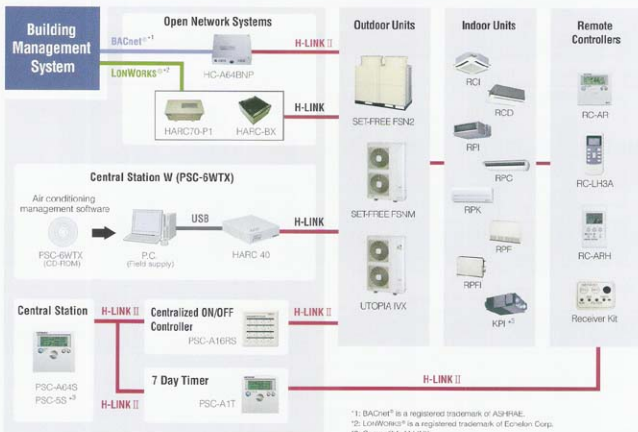
-3: These functions can be set by wired remote control switch (PC-AR) and half size remote control switch (PC-ARh) only.

-4: This function is not available depending on the outdoor unit type.

# Network Systems

## CS-NET

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



## Interface (Option)

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

### HARC 40 (for Central Station W)



By using an HARC40 adapter connectable to a personal computer by USB, the air conditioners can be centrally controlled.

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

## HC-A64BNP (for BACnet®)



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

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

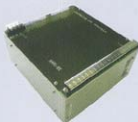
## HARC70-P1 (for LONWORKS®)



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

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

## HARC-BX (for LONWORKS®)



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

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

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

### HARC-BX E (Standard)

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

### HARC-BX E (Option A)

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

### HARC-BX E (Option B)

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

# Remote Controllers



## Remote Control Switch PC-AR

Compatible with  
the **H-LINK II**

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

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

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



## Wireless Remote Control Switch PC-LH3A

Compatible with  
the **H-LINK II**

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



## Half-size Remote Control Switch PC-ARH

Compatible with  
the **H-LINK II**

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

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



## 7 Day Timer PSC-A1T

Compatible with  
the **H-LINK II**

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

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



## Central Station PSC-A64S PSC-5S

Compatible with  
the **H-LINK II**

Up to **160**  
indoor units

Up to **128**  
indoor units

Up to **64** remote  
control groups

Up to **16** remote  
control groups

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

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



## Centralized ON/OFF Controller PSC-A16RS

Compatible with  
the **H-LINK II**

Up to **160**  
indoor units

Up to **16** remote  
control groups

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

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

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



■ Project Name:

---

■ Contractor:

---

■ Consultant:

---

■ Delivery Date:

---

■ System Layout:

A large grid of graph paper, consisting of 20 columns and 30 rows of small squares, intended for drawing a system layout.



ISO 9001



ISO 14001



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