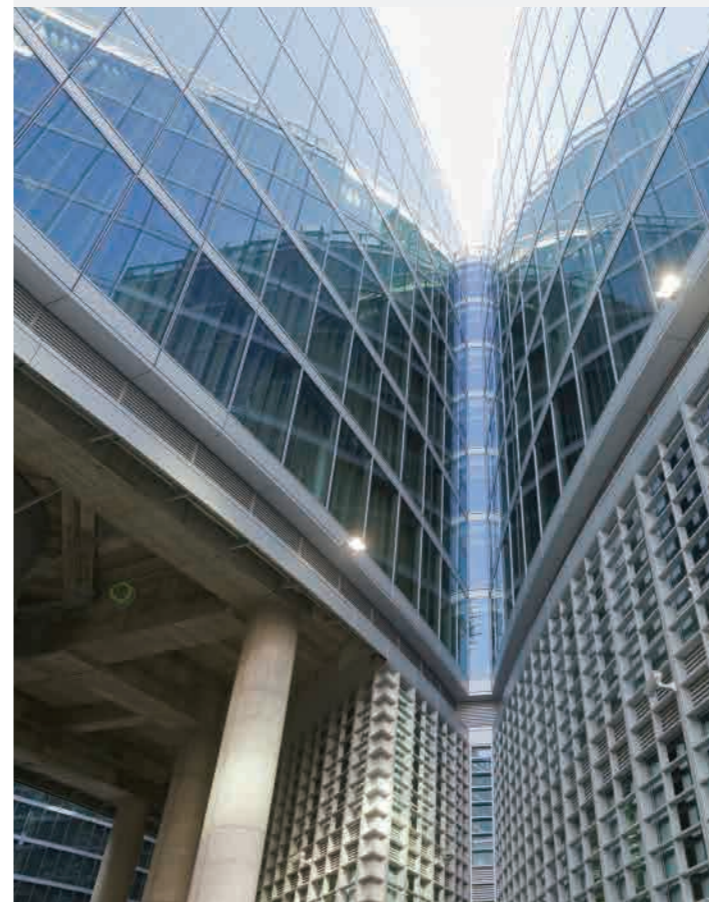




  
INSTALL CONFIDENCE.



EFFICIENT VRF R-410A 60HZ HEAT PUMP  
**JVOH 080 to 540 VVER0AQ**  
A complete range from 8hp to 54hp.

  
INSTALL CONFIDENCE.

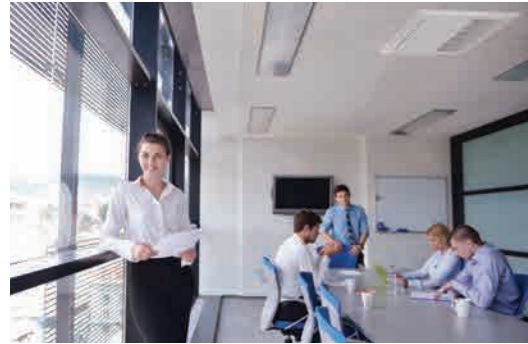
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SHFCZE-MAORX-160114

## YORK® Variable Refrigerant Flow System



### Efficiency and comfort for your customers. New growth opportunities for your business.

Building climate control is about comfort and efficiency – delivering just the right heating and cooling to every space using no more energy than necessary. YORK® variable refrigerant flow (VRF) technology lets you do that for customers in innovative ways that present new growth opportunities for your business.



VRF technology gives building owners, architects, consulting engineers, and mechanical contractors an innovative solution to address the common challenge of reducing operating costs in buildings with varied loads and occupancy rates while delivering comfort to all areas. The systems can offer:

- **Exceptional efficiency**, delivering energy savings for some applications compared to conventional HVAC systems.
- **Flexibility to specify a customized modular system** to the exacting requirements of each project, with options that include heat pump and a host of fan coil options.
- **Freedom for designers to choose ducted systems with short or long runs, or ductless systems** that allow for much lower clearance between building floors and therefore lower overall construction costs.
- **Impressively quiet comfort**, with control to deliver precisely the correct amount of heating or cooling to each zone.



The information contained in this catalog is for illustration purposes only and is subject to change at the sole discretion of Johnson Controls. Statements, figures, calculations, plans, images and representations are only examples. Johnson Controls encourages you, as the purchaser, to analyze your HVAC requirements and to work with Johnson Controls to determine the exact VRF System to fulfill your needs.

## Introducing YORK® VRF from Johnson Controls



**YORK® VRF** YORK® VRF systems are modular and controlled solutions that include models with capability to heat or cool different zones.

The technology brings an array of advantages over conventional systems.

- **Save on energy.** Systems essentially eliminate duct losses. In addition, variable-speed compressors in outdoor units provide extremely high part-load efficiency.
- **Keep people comfortable** Users can set individual temperature set points for multiple zones. Variable-speed compressors with wide capacity and precise modulation help maintain each zone's temperature within a narrow range. Indoor units also operate quietly.
- **Go green.** VRF technology can help users attain LEED® certification points for resource efficiency.



### Enjoy design freedom

#### A variety of standard modular components let you customize and size equipment to meet specific project requirements.

Because ductwork is generally needed only for ventilation, ducts can be smaller, reducing capital cost. Systems can easily be adapted as space is reconfigured. Unlike conventional HVAC systems, VRF systems allow addition of capacity to accommodate expansion simply by adding modular units (capacities 8-54 HP). There is no need to remove and replace the original unit or reconfigure ductwork.



### Install with ease

YORK® VRF systems are designed for quick and simple installation, since piping from the outdoor units can be connected from the front, back, or underneath. Indoor units are small and light and easy to transport and handle; outdoor units can be brought into a building for installation on a rooftop via a service elevator – no crane or other heavy equipment is needed. Service is simple, too: Systems need little maintenance beyond changing filters and cleaning coils.

## Gain control flexibility

Users can deploy from three basic control options.

- **Indoor fan coil units** come with a selection of thermostats, from simple units with on/off, setpoint, load and speed settings, to programmable units that enable scheduling. Wireless units are available to provide remote control of zone space conditions.
- **Central station controllers** for larger projects provide remote control and scheduling of the entire system from one or more control points.
- **Adapters (gateways)** enable control of large buildings or campuses through building automation systems such as Metasys®.

## Choose multiple applications

YORK® VRF systems suit a wide range of buildings in new construction and retrofits. Prime candidates include:

- **Buildings with multiple zones** that have different comfort needs – such as hotels, schools, medical office buildings, commercial office buildings and others.
- **Historical building renovations** in which ducted HVAC options are severely limited and the basic building structure must not be disturbed.
- **Buildings in climate zones favorable for heat pump technology.**



## Get expert advice at every step: select, design, specify, install



Your Johnson Controls account team supports you as no one else can, at every step of every project. Effective training, intuitive design and specification software, advanced logistics and delivery, and easily accessible documentation form a powerful support package that adds substantial value to YORK® VRF systems.

**Get your team up to speed fast.  
Efficient performance, quality installations.**

**Comprehensive training programs provide knowledge and skills necessary to effectively and efficiently deploy YORK® VRF technology.** Our world-class VRF training center offers a multitude of classes with specialized modules and topics that help:

- **Salespeople** submit competitive bids and close deals.
- **Designers** select and configure the right equipment easily and accurately.
- **Installers** learn the proper procedures and complete jobs accurately, on time and on budget.
- **Service technicians** maintain, troubleshoot and repair systems efficiently.



**The training center includes a dedicated VRF laboratory to provide hands-on experience with the various systems, components and controls.** YORK® VRF training programs help deliver peace of mind that your staff is prepared to support your business with the knowledge to compete in a growing industry.

# Get the tools that give you an edge

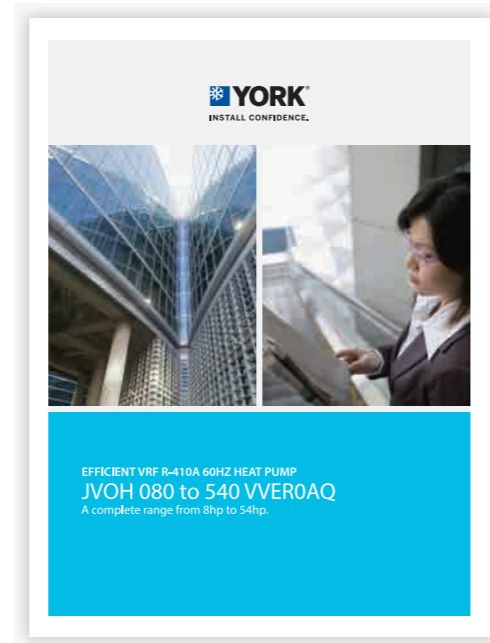
## Right-size systems with intuitive selection software

The YORK® VRF selection software intuitively guides you step by step through equipment selection, so you can quickly and accurately choose an appropriate and cost-effective equipment package for each project.

## PC-based program

The PC-based program gives you mobility and flexibility. The software helps you:

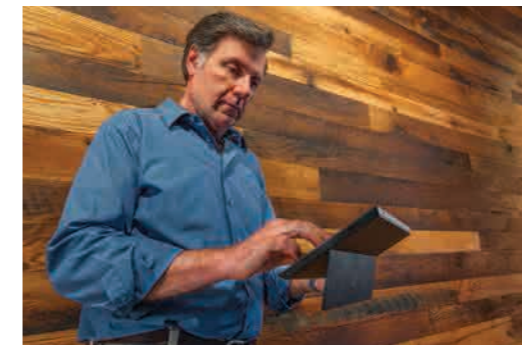
- **Design accurate final system drawings** including piping diagram in an easy, quick, step-by-step process.
- **Accurately select systems** using a System Sizing Analysis. The process starts with the indoor fan coil units, so that outdoor units are optimally sized. Proprietary algorithms figure the system size using data input on the indoor units, load, and measurements, so your system does not include capacity that will go unused.
- **Use intuitively designed features and functionality** that make the design process easy, fast, and accurate. You can select options and accessories without referring to additional information or performing additional calculations.
- **Gain an edge** by confidently designing VRF systems that are right-sized, and include the right equipment for each project.



## Consistent delivery: Get the right equipment to the jobsite on time

**Ample inventory and advanced order management and logistics systems can help you complete installations in a timely manner.**

Consistent service and predictable deliveries help you prevent delays waiting for essential components and enable you to set a project timeline and schedule labor efficiently. Fast and accurate parts delivery from our main distribution center.



## Let's go to work – together

**YORK® VRF systems can be configured to meet your project requirements and deliver exceptional performance.** Select heat pump outdoor units with DC inverter-driven compressors offering energy savings and the ability to scale to size. Multiple ventilation options help make sure your systems introduce the right volume of outside air. A host of options and accessories help ensure a custom fit for your project. And users benefit from our variety of control technology options.

Let's explore the many advantages of VRF systems together so you can put them to work for your customers. On these pages, you can explore detailed information on the full range of YORK® VRF systems.



# A New Energy-saving Benchmark of Multi-split Central Air Conditioning York VRF JVOH Series

The up-to-date generation of R410A inverter-driven multi-split air conditioning inherits York's top-class technologies and excellent quality, improving the performance significantly.

The compact modular combination greatly enriches the product lineup and simplifies transportation and installation work, realizing ultimate flexibility.



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# Super Energy Conservation

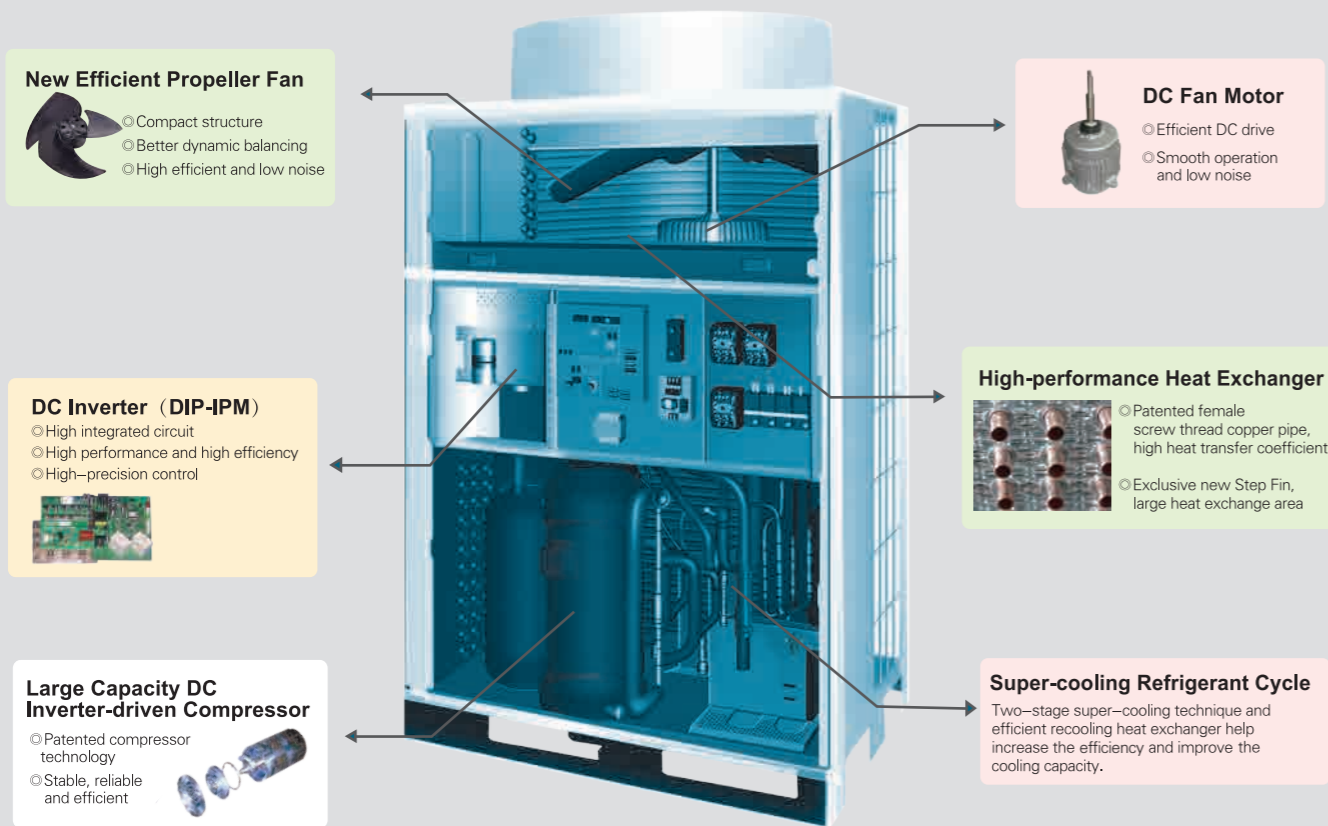
## A New Energy-saving Model of Multi-split Central Air Conditioning

### Cutting-edge Technological Innovation is the Cornerstone of Energy Conservation Achievement for York

Energy conservation in central air conditioning can be carried out through the following two ways.

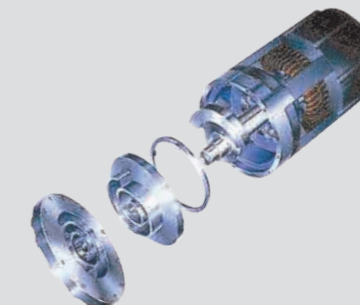
**Management Energy Saving:** On the premise of comfort in buildings, the objective of energy saving can be reached by constraints on behavior or proper operation adjustment of equipment.

**Technological Energy Saving:** Selecting the high efficient Central Air Conditioning with leading technology to save energy. York makes good use of innovation and optimization of every key technology to make the latest York VRF JVOH series a master of energy-saving.

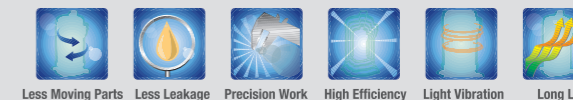


## York VRF System Adopts Hitachi High Efficiency Scroll Compressor, Which Leads Industry Trends.

In 1983, Hitachi invented the first air conditioning scroll compressor in the world and owned the patent. Nearly 30 years' professional experience in development and manufacturing of scroll compressor ensures more advanced technology, higher quality and stronger reliability.



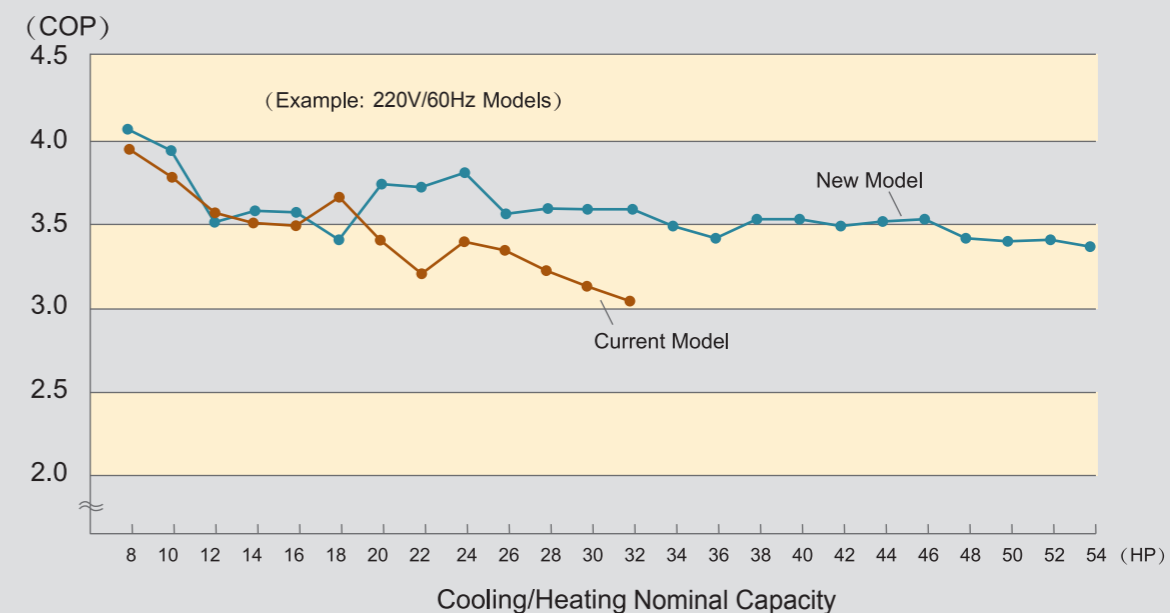
In 2003, Hitachi promoted the first high-pressure chamber scroll compressor in the industry which has the function of interior oil separating. At the same time, considering the high pressure characteristics of R410A refrigerant, asymmetric scroll disc was developed and bearing structure was strengthened which improved efficiency and reliability of the compressor.

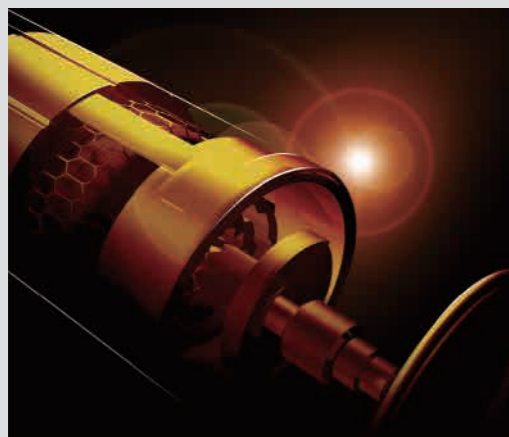


In 2008, we applied the cutting-edge large capacity scroll compressor to Central Air Conditioning system.

## High Efficiency and Energy Saving

Refrigerant cycle and control have improved for energy saving.





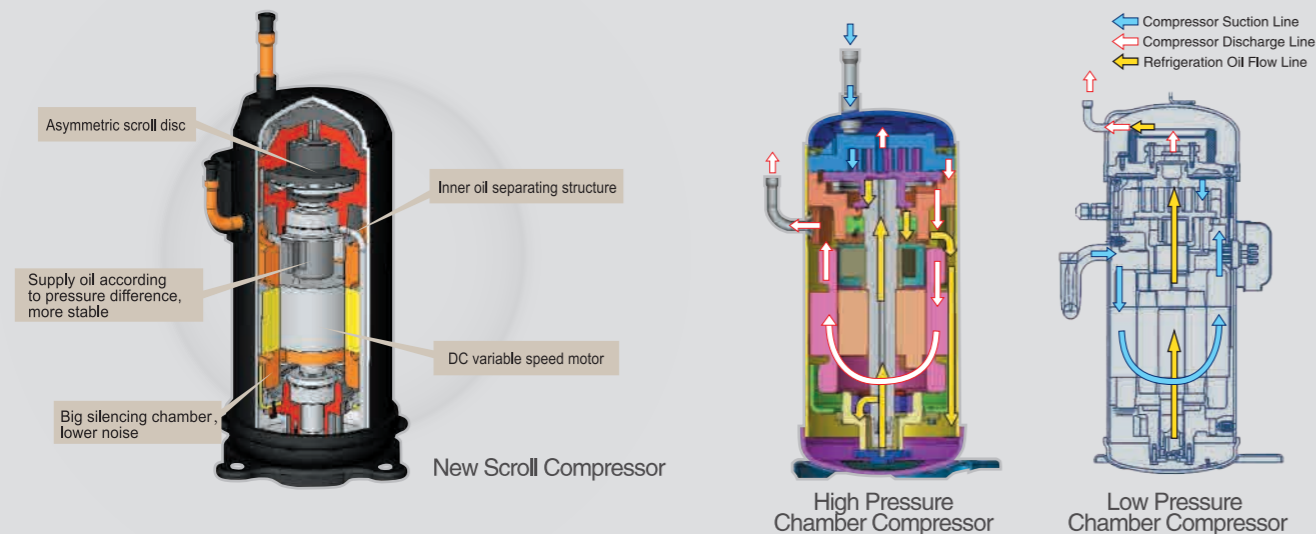
# Core Technologies

## The Source Power of Continuous Innovation

### The Patented High Efficiency Scroll Compressor

### The First High-pressure Chamber Scroll Compressor with a Function of Interior Oil Separating.

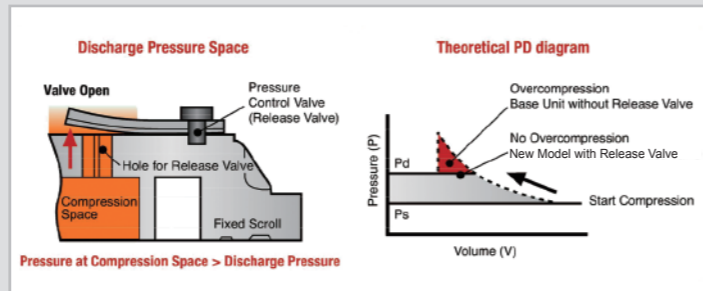
The large capacity high-pressure chamber scroll compressor adopts an interior oil separating section, maintains most of lubricating oil in compressor by the use of the interior oil mist separator and oil-returning pipe design. Only much less oil is discharged from compressor along with refrigerant, which avoids cooling capacity decrease due to redundant oil retention in refrigeration cycle, further improves efficiency. Adoption of anti-overcompression technique effectively prevents power consumption increase arisen from overhigh condensing pressure, realizing efficient and stable operation.



### Anti-overcompression Technique

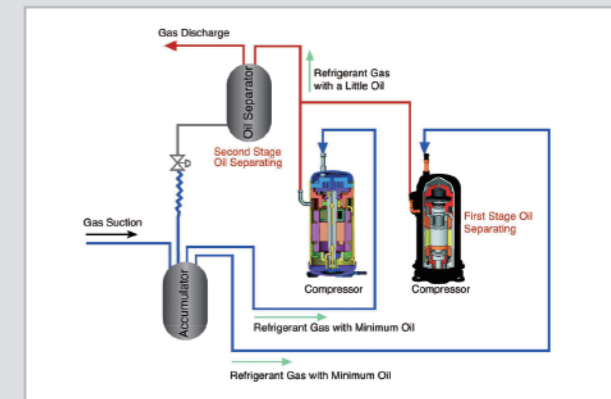
High pressure chamber scroll compressor adopts Release Valve Technique, which effectively prevents the overcompression when compressor is in partial load operation and drastically promotes the intermediate pressure performance.

- Orbiting Scroll Lifting Force Optimization is improved
- Leakage Loss Reduction
- Improved Intermediate Pressure Performance



### The Originated 2-Stage Oil Separating Technique Improves Reliability of System

York VRF Front Flow Series system adopts Hitachi proprietary compressor which has high efficient function on oil separating to conduct the first stage oil separating. Meanwhile, oil separator is adopted as the second stage oil separating. Therefore the system can operate safely and reliably.

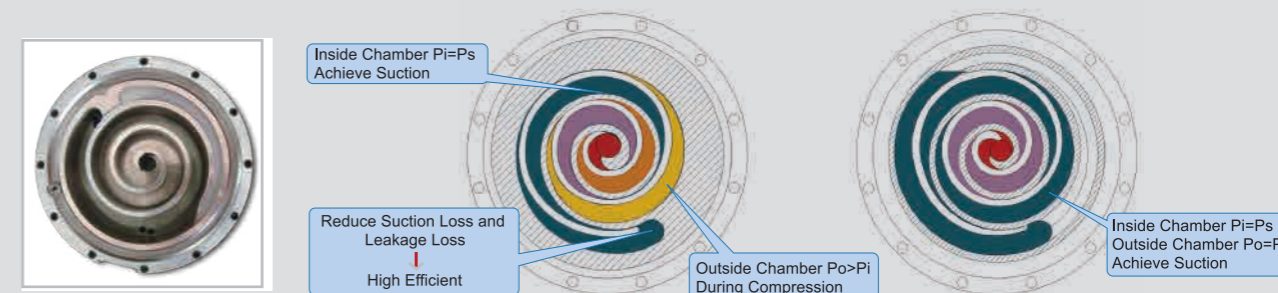


### Exclusive Asymmetric Scroll Technology

The asymmetric scroll structure of Hitachi compressor effectively helps reduce the refrigerant gas leakage loss in the process of suction and compression, enhancing operating efficiency and reliability.

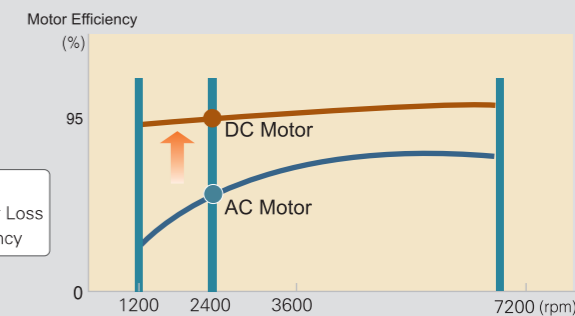
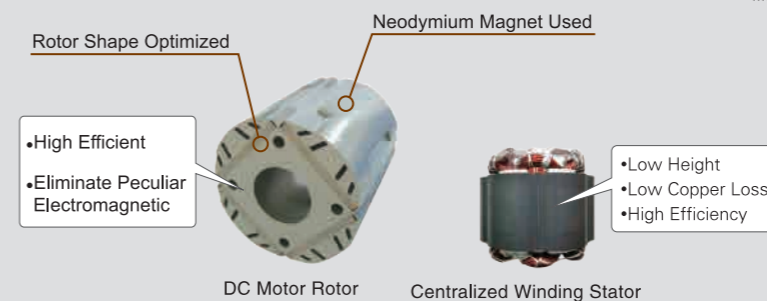
Asymmetric scroll: the time difference between the suction of outside chamber and inside chamber is 180°. The pressures of outside chamber and inside chamber are different. The pressure distribution in compressing chambers are asymmetric.

Symmetric scroll: the outside chamber and inside chamber end gas suction at the same time, the pressures of outside chamber and inside chamber are equal. The pressure distribution in compressing chamber are symmetric.

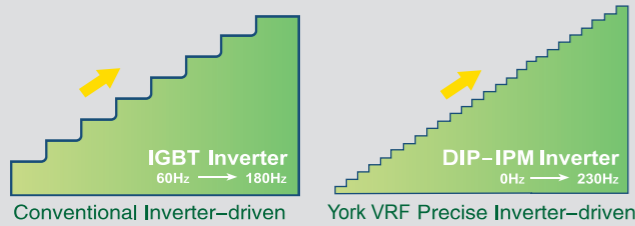


### DC Inverter-driven Compressor

By the use of DC motor, the performance is improved at around 20~40Hz where the operation time of the inverter compressor is the longest. Meanwhile, the rotor of compressor's motor is divided into two parts to suppress electromagnetic interference (EMI) to achieve low noise.



## The Precise Inverter Technique



The operating speed of compressor DC motor can be adjusted freely with system capacity variability in 1Hz increment. Integrated with auto-adaptive control technique, the capacity output can be adjusted automatically according to actual air conditioning load to achieve a smoother curve of temperature fluctuation to satisfy higher coziness requirements.

## Oil-equalization Control Technology Between Outdoor Units

Synthetic application of scroll compressor with internal oil separating function, efficient external oil separator, accumulator, and intelligent oil level control technology regulates the oil level within the proper range, ensuring oil balance between outdoor units, and guarantees system stability and reliability.



## Rotational Operation to Distribute Load of Outdoor Units

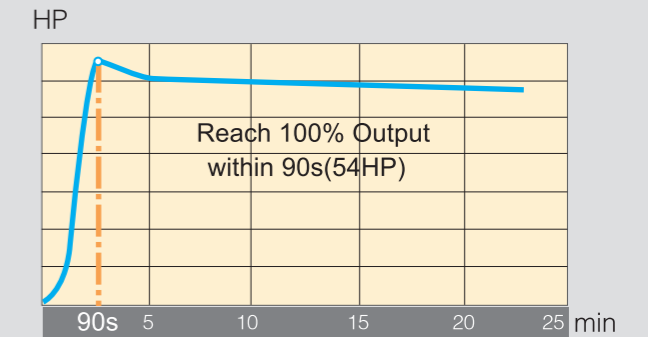
Equalizing operation time of each outdoor unit leads to compressors load reduction. The compressor rotation operation effectively spreads the operation time of each compressor, extending the unit life.



## Intelligent Defrosting Enables More Effective Heating

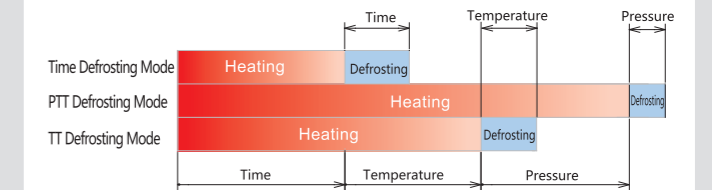
### Rapid Heating Start-up

Combining the soft start of DC inverter compressor and rapid start of fixed speed compressor, the system can achieve 100% heating capacity output instantly and quickly meet the air-conditioning demand.



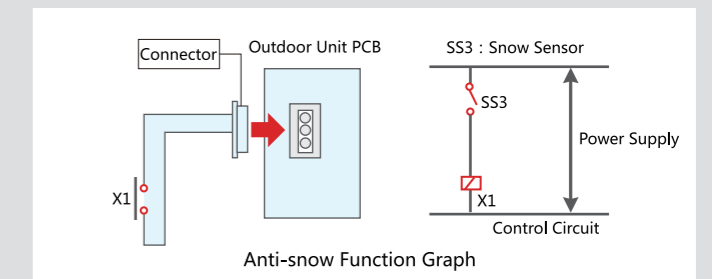
### Pressure Defrosting Mode

York VRF JVOH series adopts pressure defrosting mode (PTT defrosting mode), accordingly frosting doesn't occur frequently and the short defrosting time ensures heating effect in winter.



### Anti-snow Function

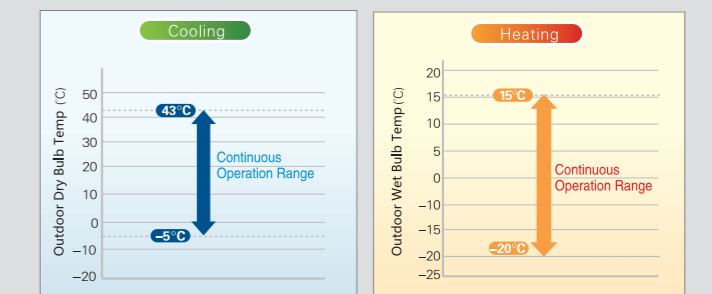
In the event of bad weather like snowstorm, even if outdoor unit is not operating, snow sensor on outdoor PCB can still be shorted because of natural snowflake, then the outdoor fan motor starts rotating at full speed to prevent outdoor unit from being covered by snow. When air conditioning starts up, the fan motor will turn to normal speed.



\*This Function Needs Optional Accessory

### Wide Ambient Range

York VRF JVOH can handle a wide range of outside air condition, thus extending the flexibility of installation space and climatic environment.

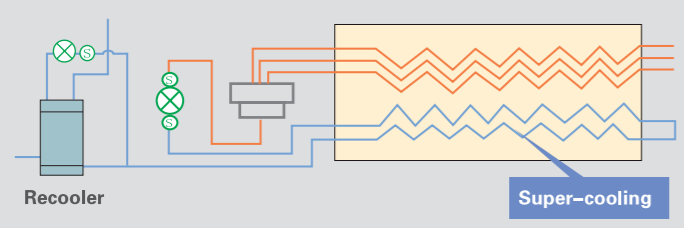




## Two-stage Super-cooling Circulation Technique Improves Cooling Capacity and Total Piping Length

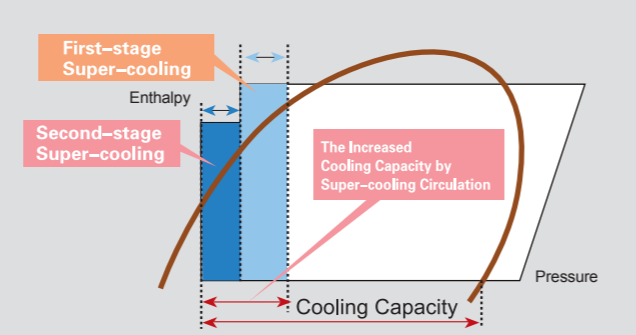
A sub-cooling section in the heat exchanger of outdoor unit is designed to realize the first-stage super-cooling. Furthermore, a high efficient recoler is applied to achieve the second-stage sub-cooling. The total undercooling can reach up to 27 degrees (taking 14 HP as an example).

### Two-stage Super-cooling Cyclic Graph



- Two-stage super-cooling circulation enhances cooling capacity
- Pressure loss of refrigerant flowing in pipe is reduced
- Improved undercooling contributes to stable operation of EEV
- Improved undercooling allows extension of total piping length

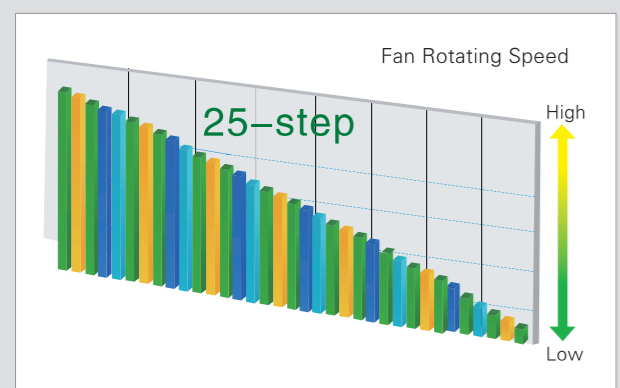
### Two-stage Super-cooling Pressure-enthalpy Graph



## Outdoor Heat Exchange Technique Leads to Great Improvement of Heat Exchange Efficiency

### 25-step Fan Speed Control

DC variable-speed motor is installed in outdoor unit, which leads to input power reduction and efficiency promotion. The outdoor fan speed can be adjusted by 25 steps.



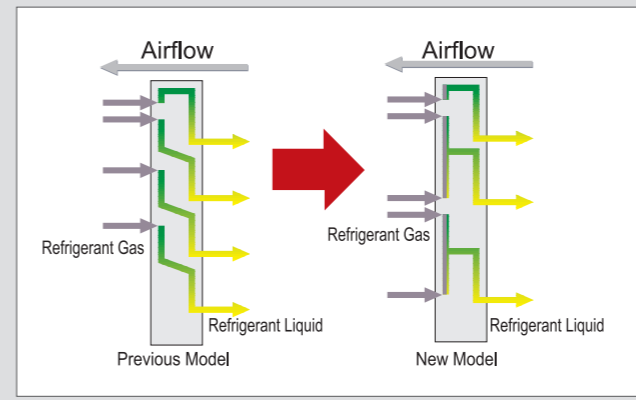
- The stability of discharge pressure and suction pressure of compressor is assured
- The stability of dynamic flow (capacity) allocation of indoor unit is assured
- Quick response of control system is improved, accordingly the system stability, durability and reliability are assured

## New Efficient Heat Exchanger

New efficient heat exchanger adopts  $\Phi 7.0$  female screw thread copper pipes with high thermal conductivity and new Step Fin, which leads to air flow resistance reduction, even and full heat exchange and heat transfer improvement. Furthermore, the amount of frost on heat exchanger will decrease in winter, which improves heating effect.

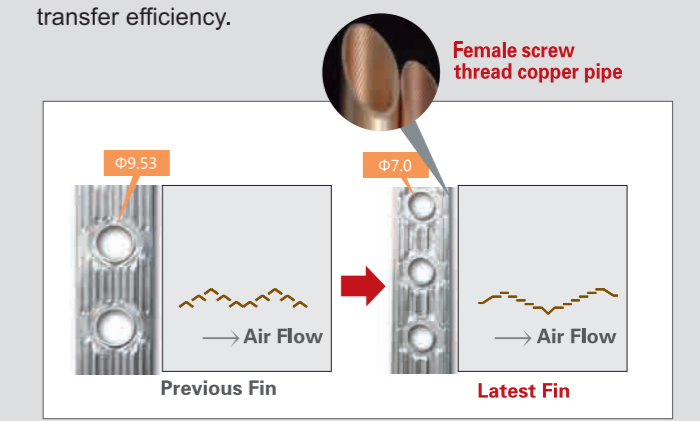
### "2 in 1" Refrigerant Circuit

The specially designed "2 in 1" refrigerant flow optimizes the efficiency of heat exchanger.

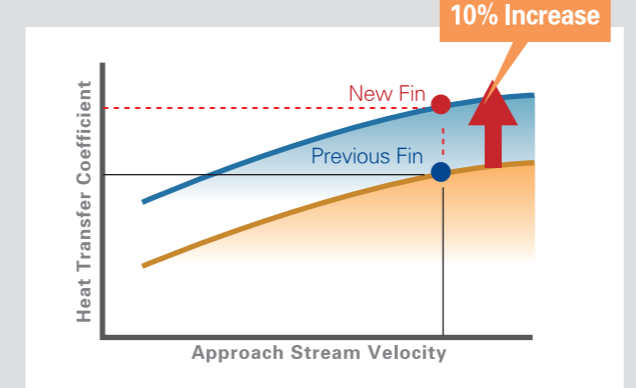


### Newly Developed Fin with Efficient Heat Transfer

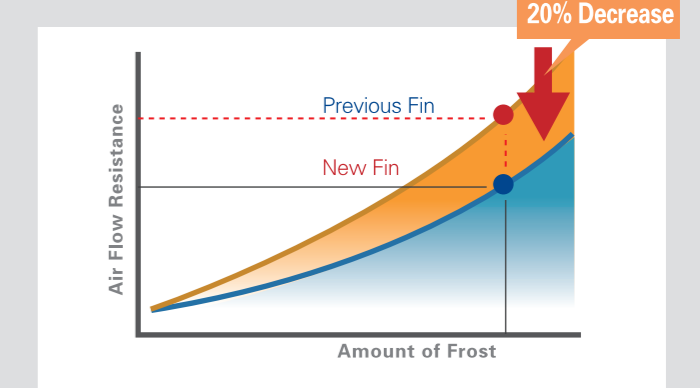
New fin and copper pipe contribute to promote heat transfer efficiency.



### Improvement of Heat Transfer

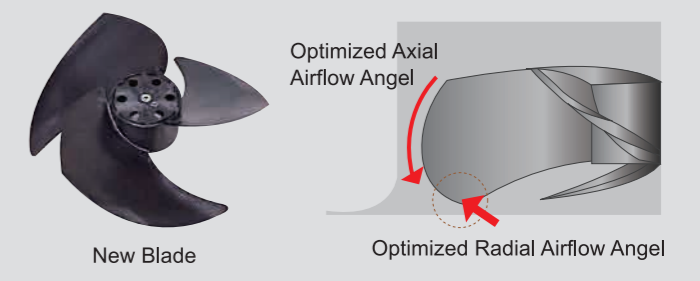


### Reduction of Air Flow Resistance



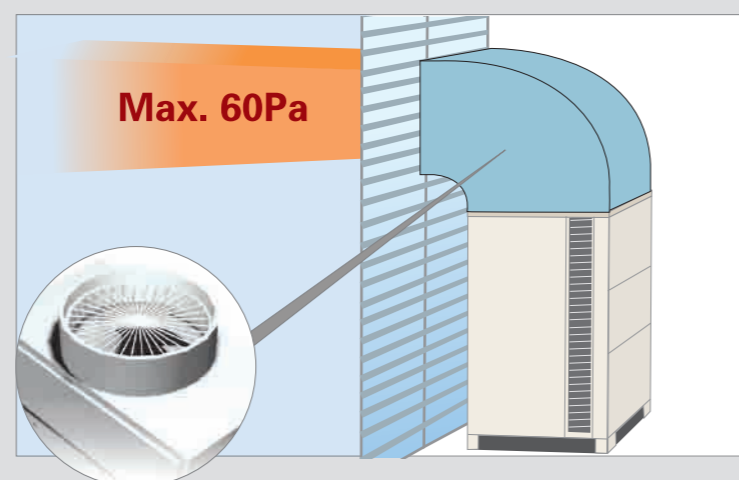
### New Efficient Axial Fan

The newly developed efficient axial fan with new-shaped blade helps decrease turbulence around. It is made of special material which has an obvious effect to absorb vibrating noise and minimizes the "Buzz" dramatically.



## Wide Range of External Static Pressure of Outdoor Units

High efficient axial fan is designed with computer fluid analysis, finite element method and aerodynamic simulation analysis. Also the inlet and outlet angle and structure are optimized to lead to much higher external static pressure allowance and sound air circulation.



•Application of efficient fan lowers motor power consumption

•External static pressure: 60Pa

## Highest Level in Noise Reduction



### Adoption of Hitachi High Pressure Chamber Scroll Compressor

Sophisticated manufacturing technology enables minimum vibration and low noise level.



### Adoption of DIP-IPM Inverter

IGBT+Auto-protection, silencer and electronic interference filter are applied to lower noise.

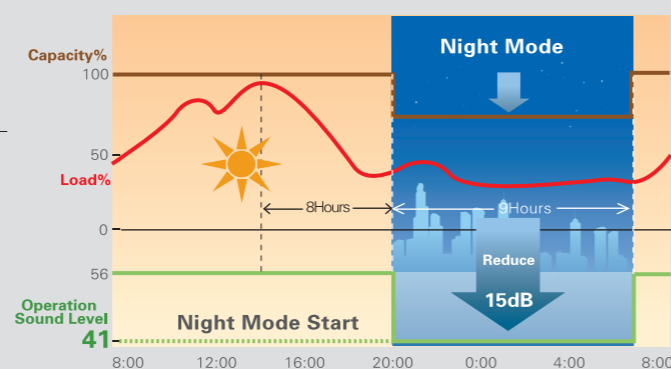


### Noise Deadening of Fan Motor

The material of fan motor is cast aluminum. The motor bracket is of non-resonant hanger structure, which ensures stable motor performance, lowers vibrating noise.

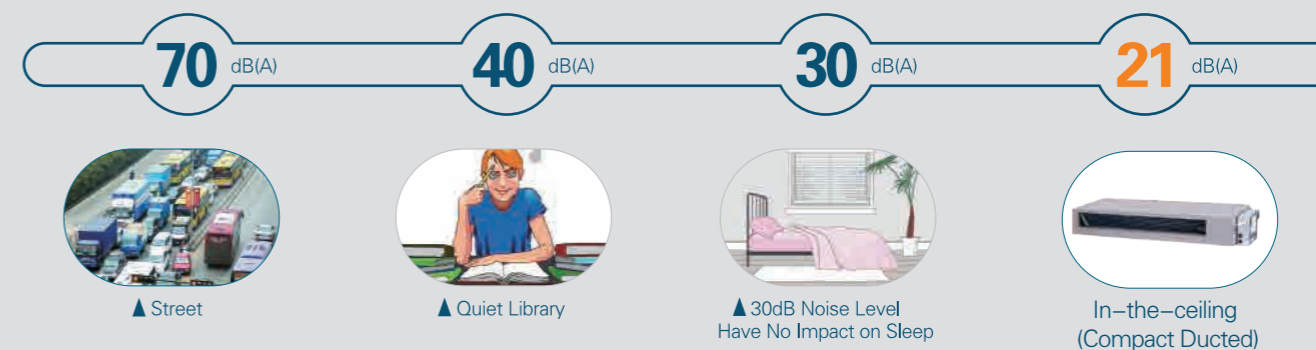
## Silent Mode at Night

The outdoor unit has a special function of night-shift setting, which reduces the noise level by max.15 dB (8HP) when in full-load operation.



## Indoor Unit Noise Control

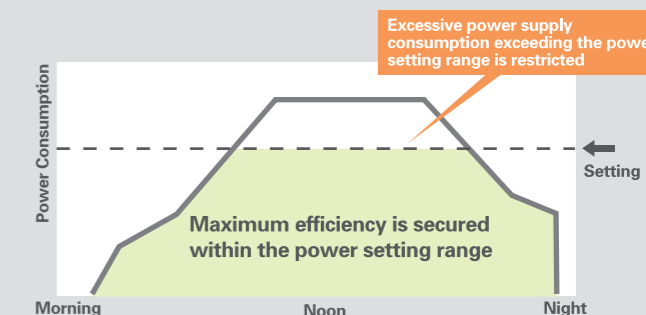
To suit with variable applications, York products realized noise reduction of indoor units via various aspects of fan motor, fan blade and air duct layout, which provides customers with the quietest air conditioned environment.



## Intelligent Demand Control

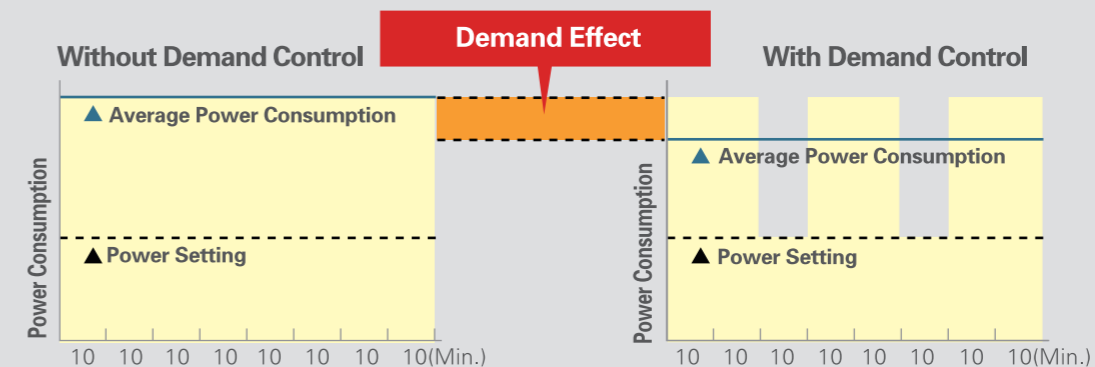
### Self-demand Control

A newly developed self-demand function has largely improved energy-saving effect. Since the current is self-detected and demand control performs 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

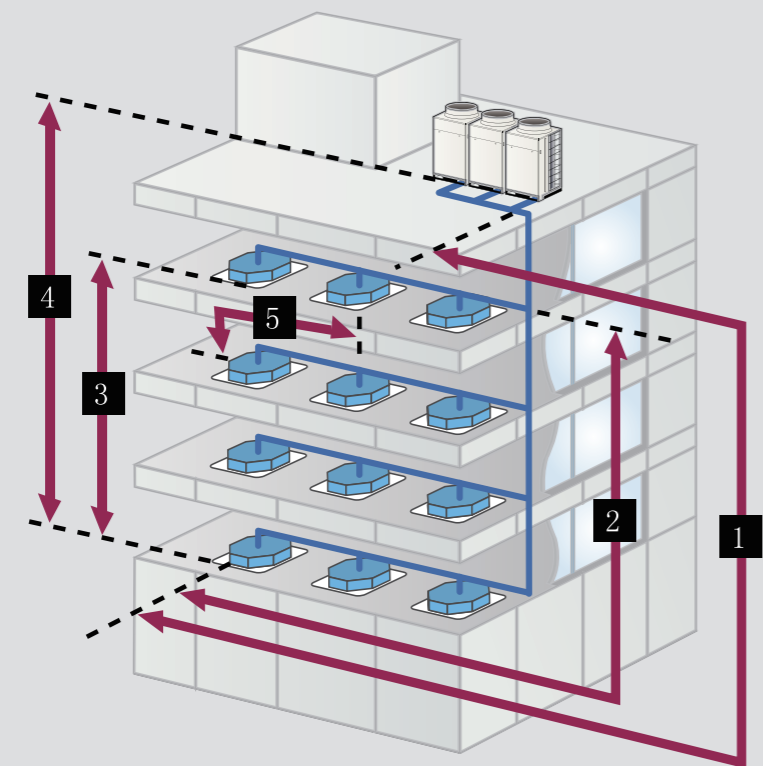
Wave mode is designed to switch demand control between ON and OFF alternatively at time intervals of 10 or 20 minutes. The room temperature is maintained at a comfortable level with energy saving.



# Design and Installation

## System Configuration Suitable for Design and Installation

### More Flexible Refrigerant Piping Work

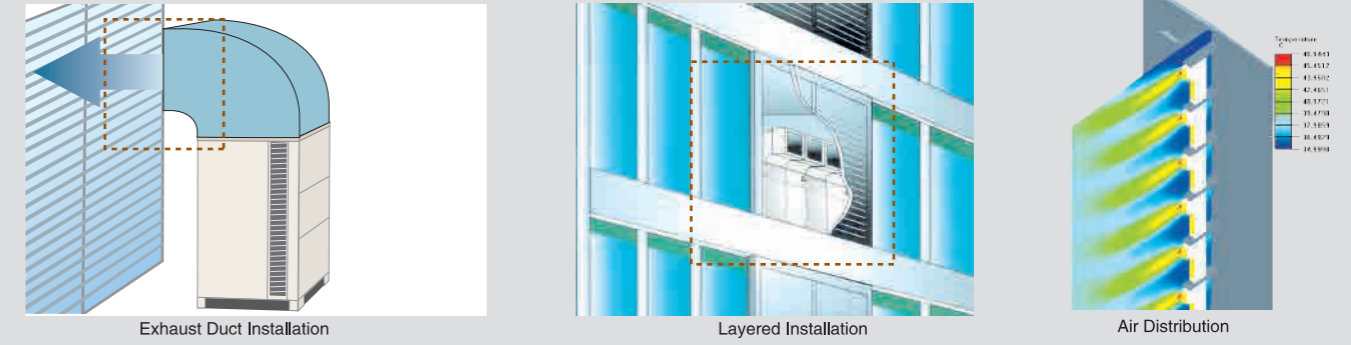


|                                      | Previous Model | New Model (JVOH) |
|--------------------------------------|----------------|------------------|
| Total maximum piping length          | 300m           | 1,000m           |
| Max.piping length                    | 150m           | 165m       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

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

### Layered Installation for Highrise Building

The use of exhaust duct allows layered installation of outdoor units. Outdoor fan motor can provide a higher external static pressure and a long distance air supply, which prevents air return from short-cut in an effective way, then ensures a sound ventilation and heat transfer.



### Connectable to 64 Indoor Units Max.

The number of connectable indoor units has been increased to 64 maximum. Thus, the system can be used in buildings where there are many indoor units to be connected.

Connection Capacity: 50 to 130%

| HP                                      |                        | 8  | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 |
|---|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| Max. Number of Connectable Indoor Units | <b>New JVOH Series</b> | 13 | 16 | 19 | 23 | 26 | 26 | 33 | 36 | 40 | 43 | 47 | 50 |

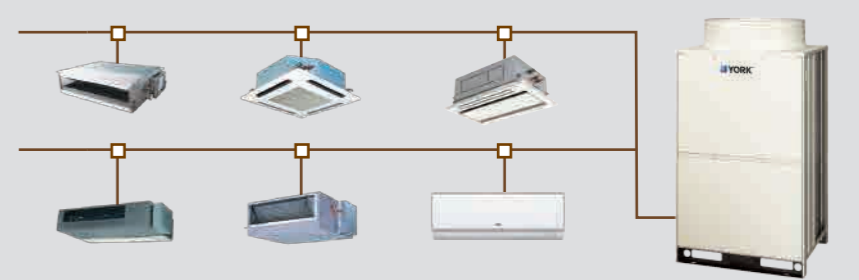
  

| HP                                      |                        | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 |
|---|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| Max. Number of Connectable Indoor Units | <b>New JVOH Series</b> | 53 | 56 | 59 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |

NOTES  
 \* : For a system in which all indoor units are operated simultaneously, the max. total capacity will be 100%. Determine the number of Indoor Units carefully so that a problem such as decreased outlet air temperature will not occur. Refer to Technical Catalog for more details.

### Various Model Types Easily Match Different Spatial Layout

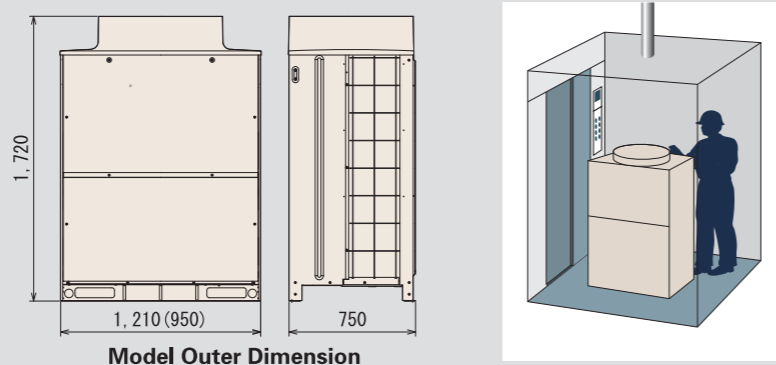
Wide capacity range of outdoor units enables free model combination relating to the actual condition of building. There are **76** models in **9** types of indoor units for selection. Designer can choose appropriate type and capacity of indoor units according to interior decoration and functions.



## Compact and Lightweight Design, Space Saving

Ease and flexibility of installation are further enhanced due to the outdoor unit's lightweight and compact design.

A elevator can be used to uplift the base unit (Max.18HP) separately.

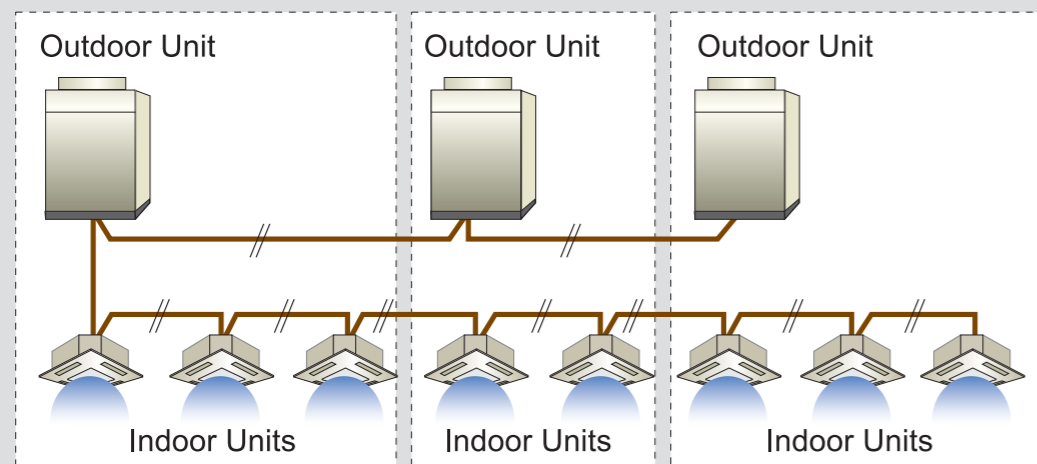


## Simple and Convenient Wiring Work

Communication between multiple outdoor units and indoor units is via H-LINK II system, Each H-LINK II can support up to **64** outdoor units and **160** indoor units.

### Non-polarity Twisted-pair Wire

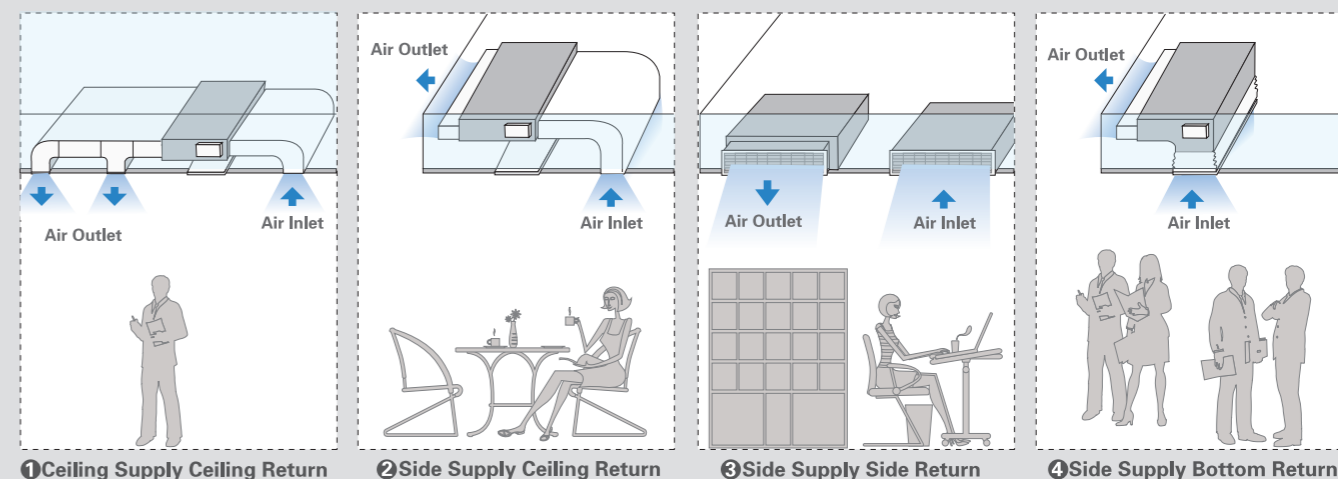
Transmission cable adopts non-polarity twisted-pair wire which can avoid the polarity mismatching between anode and cathode.



One Refrigerant Cycle

## Flexible Ways of Air Supply and Air Return

User and designer can select from different ways of duct layout to suit different construction structure and interior decoration, which helps to meet various personalized customer requirements.



① Ceiling Supply Ceiling Return    ② Side Supply Ceiling Return    ③ Side Supply Side Return    ④ Side Supply Bottom Return

## Humanized DIP Setting

A humanized DIP adjustment switch is specially designed for indoor units of capacity less than 3HP. When indoor load increases or decreases, the DIP switch can be adjusted in 0.25HP increments to match with load fluctuation and benefit users greatly.

| NO. | HP        | Indoor Unit Type |         |      |      |         |      | DIP Switch Setting |                   |                    |
|-----|-----------|------------------|---------|------|------|---------|------|--------------------|-------------------|--------------------|
|     |           | JTDL(M)          | JTDS(N) | JTKF | JTHW | JTFE(C) | JTKT | Decreased Capacity | Standard Capacity | Increased Capacity |
| 1   | 0.8 ← 1.0 | ●                | ●       |      |      |         |      | ON OFF<br>1 2 3 4  | ON OFF<br>1 2 3 4 |                    |
| 2   | 1.0 → 1.3 | ●                | ●       | ●    | ●    | ●       | ●    |                    | ON OFF<br>1 2 3 4 | ON OFF<br>1 2 3 4  |
| 3   | 1.3 ← 1.5 | ●                | ●       | ●    | ●    | ●       | ●    | ON OFF<br>1 2 3 4  | ON OFF<br>1 2 3 4 |                    |
| 4   | 1.5 → 1.8 | ●                | ●       | ●    | ●    |         | ●    |                    | ON OFF<br>1 2 3 4 | ON OFF<br>1 2 3 4  |
| 5   | 1.8 ← 2.0 |                  | ●       |      | ●    | ●       | ●    | ON OFF<br>1 2 3 4  | ON OFF<br>1 2 3 4 |                    |
| 6   | 2.3 ← 2.5 |                  | ●       |      |      | ●       | ●    | ON OFF<br>1 2 3 4  | ON OFF<br>1 2 3 4 |                    |
| 7   | 2.5 → 2.8 |                  |         |      |      |         | ●    |                    | ON OFF<br>1 2 3 4 | ON OFF<br>1 2 3 4  |

# Intelligent Control Humanized System and Convenient Operation

## Building Management System

Compatible to multiple communication protocol of Lonworks, BACnet, etc. Connectible to BMS or Smart Home System via JLAA101EWS, JBAA101EWS all of which can connect to Max. 64 indoor units.

- Real-time operation status monitoring for inquiry
- Operation order from monitoring center

## LonWorks JLAA101EWS

JLAA101EWS (for LONWORKS®)



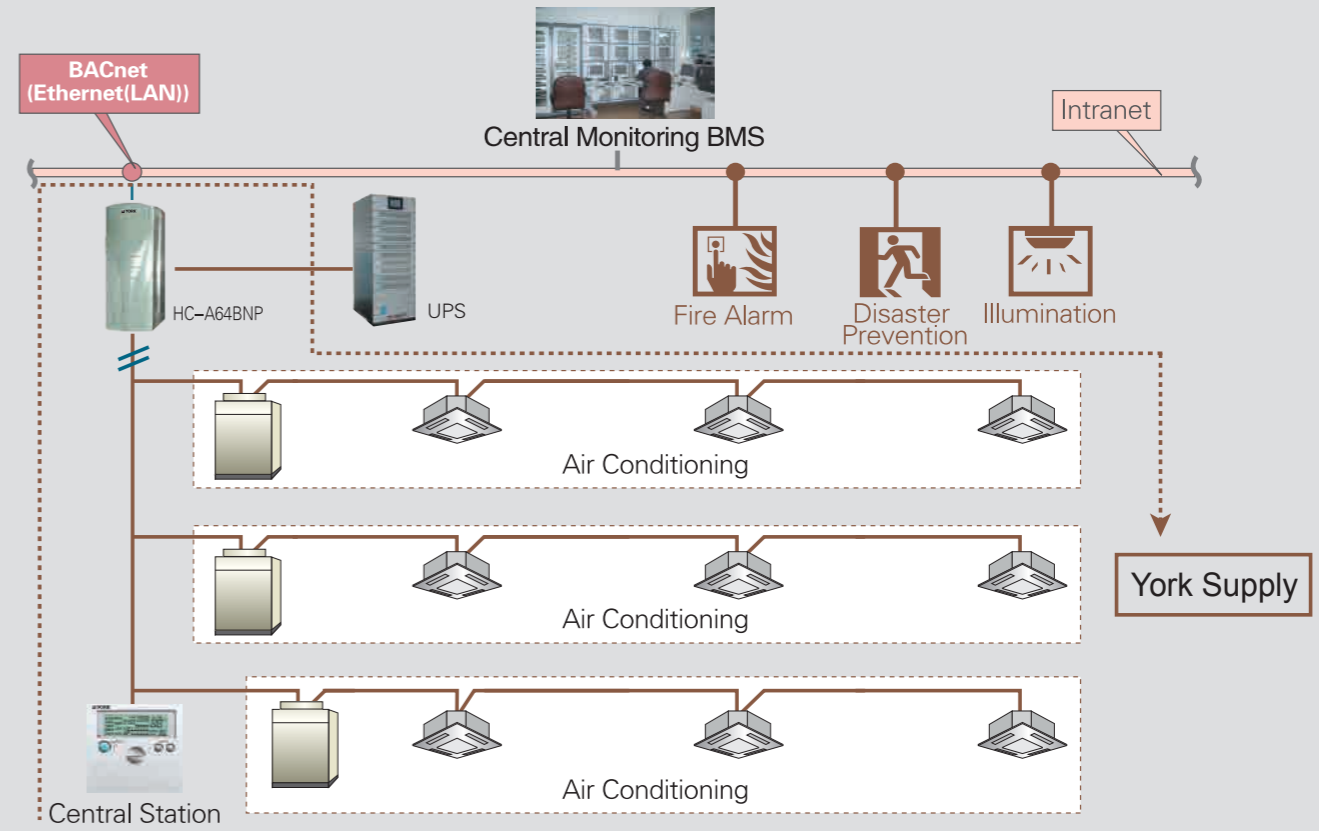
By using the JLAA101EWS adapter for LONWORKS® to connect air conditioners to the total building control system, air conditioners can be centrally controlled.

You can select the number of controls, monitor, and what to control in the indoor unit from 4 choices (Standard, Option A and Option B and Option C) as needed.

|                                   |  |         |   |
|-----------------------------------|--|---------|---|
| Connection Method To Upper System | • LonTalk Protocol SNVT(Standard Network Variable Type) FTT-10A Free Topology  |         |   |
| <b>JLAA101EWS (Standard)</b>      |  |         |   |
| Number of Connection              | 64 Remote Controller Group   |         |   |
| Control                           | Run/Stop<br>Simultaneous Run/Stop<br>Operation Mode setting<br>Temperature setting   | Monitor | Run/Stop status & malfunction<br>Operation Mode setting<br>Temperature setting<br>Thermo status   |
| <b>JLAA101EWS (Option A)</b>      |  |         |   |
| Number of Connectable RCG         | 64 Remote Controller Group   |         |   |
| Control                           | Run/Stop<br>Simultaneous Run/Stop<br>Operation Mode setting<br>Temperature setting<br>Fan Speed setting<br>RC permitted/prohibited (all items)   | Monitor | Run/Stop status & malfunction<br>Indoor unit Inlet Temperature/<br>RC Thermo Temperature  |
| <b>JLAA101EWS (Option B)</b>      |  |         |   |
| Number of Connectable RCG         | 32 Remote Controller Group   |         |   |
| Control                           | Run/Stop<br>Simultaneous Run/Stop<br>Operation Mode setting<br>Temperature setting<br>Fan Speed setting<br>Louver setting<br>RC permitted/prohibited (all items)   | Monitor | Run/Stop status & malfunction<br>Operation Mode setting<br>Temperature setting<br>Fan Speed setting<br>Louver setting<br>Alarm Code<br>Indoor unit Inlet Temperature/RC Thermo Temperature<br>Indoor unit Outlet Temperature<br>Outdoor Temperature   |
|                                   | Temperature Mode Switch  |         |   |
| <b>JLAA101EWS (Option C)</b>      |  |         |   |
| Number of Connectable RCG         | 16 Remote Controller Group   |         |   |
| Control                           | Run/Stop<br>Simultaneous Run/Stop<br>Operation Mode setting<br>Temperature setting<br>Fan Speed setting<br>Louver setting<br>RC permitted/prohibited (all items)<br>RC permitted/prohibited (Run/Stop, Operation Mode setting, Temperature setting)<br>Filter Sign Reset<br>Outdoor unit capacity control<br>Outdoor unit Operating Sound<br>Reduction control<br>Temperature Mode Switch<br>Outdoor unit control mode | Monitor | Run/Stop status<br>Operation Mode setting<br>Temperature setting<br>Fan Speed setting<br>Louver setting<br>Thermo status<br>Alarm Code<br>Indoor unit Inlet Temperature/<br>RC Thermo Temperature<br>Indoor unit Outlet Temperature<br>Outdoor Temperature<br>RC permitted/prohibited (all items)<br>RC permitted/prohibited (Run/Stop, Operation Mode setting, Temperature setting)<br>Filter Sign |

## BACnet JBAA101EWS

- Running-state monitoring / On-off setting
- Operating mode setting
- Temperature setting and monitoring
- Airflow setting and monitoring
- Alarm monitoring and code display
- Communication failure display
- Wireless controller permission/prohibition
- Indoor temp. monitoring
- Filter cleaning prompting



## Central Station

### Central Station mini JCMA101EWS (AC 100V~240V) CCM01 (24V)



140mm

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

#### ■ Specification for Management Computer

|                         |   |              |             |                    |                   |
|-------------------------|---|--------------|-------------|--------------------|-------------------|
| Communication Unit      | Units of Adopting for H-LINK II                     |              |             |                    |                   |
| Communication Line      | Non-Polar 2-Wire                                    |              |             |                    |                   |
| Communication Method    | Half-Duplex Communication                           |              |             |                    |                   |
| Synchro System          | Asynchronous (start-stop synchronous communication) |              |             |                    |                   |
| Communication Speed     | 9,600bps  |              |             |                    |                   |
| Wiring Length           | 1,000m (Total Length)                               |              |             |                    |                   |
| Connecting Unit Number* |   | Outdoor Unit | Indoor Unit | Central Controller | Total Unit Number |
|                         | H-LINK II   | 64           | 160         | 8                  | 200               |
|                         | H-LINK  | 16           | 128         | 8                  | 145               |

\* : Connecting unit quantity indicates the maximum unit numbers which is possible to connect in the same H-LINK (Control Wiring).

#### ■ Functions

|                  |   |
|------------------|---|
| Monitor Function | <ul style="list-style-type: none"> <li>Run/Stop/Abnormality</li> <li>Operation Mode</li> <li>Setting Temperature</li> <li>Setting Fan Speed</li> <li>Setting Louver</li> <li>RCS Operation Prohibited Setting</li> <li>Filter Sign</li> <li>Alarm Code</li> <li>Accumulated Operating Time</li> </ul> |
| Control Function | <ul style="list-style-type: none"> <li>Run/Stop*</li> <li>Operation Mode</li> <li>Temperature Setting</li> <li>Fan Speed</li> <li>Louver</li> <li>RCS Operation Prohibited</li> <li>Filter Sign Reset</li> </ul>  |

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

### Central Station EZ JCTA121EWS (AC 100V~240V) CCL01 (24V)



250mm

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

#### ■ Specification for Management Computer

|                         |   |              |             |                    |                   |
|-------------------------|---|--------------|-------------|--------------------|-------------------|
| Communication Unit      | Units of Adopting for H-LINK II                     |              |             |                    |                   |
| Communication Line      | Non-Polar 2-Wire                                    |              |             |                    |                   |
| Communication Method    | Half-Duplex Communication                           |              |             |                    |                   |
| Synchro System          | Asynchronous (start-stop synchronous communication) |              |             |                    |                   |
| Communication Speed     | 9,600bps  |              |             |                    |                   |
| Wiring Length           | 1,000m (Total Length)                               |              |             |                    |                   |
| Connecting Unit Number* |   | Outdoor Unit | Indoor Unit | Central Controller | Total Unit Number |
|                         | H-LINK II   | 64           | 160         | 8                  | 200               |
|                         | H-LINK  | 16           | 128         | 8                  | 145               |

\* : Connecting unit quantity indicates the maximum unit numbers which is possible to connect in the same H-LINK (Control Wiring).

#### ■ Functions

|                  |   |
|------------------|---|
| Monitor Function | <ul style="list-style-type: none"> <li>Run/Stop/Abnormality</li> <li>Operation Mode</li> <li>Setting Temperature</li> <li>Setting Fan Speed</li> <li>Setting Louver</li> <li>RCS Operation Prohibited Setting</li> <li>Filter Sign</li> <li>Alarm Code</li> <li>Accumulated Operating Time</li> </ul> |
| Control Function | <ul style="list-style-type: none"> <li>Run/Stop*</li> <li>Operation Mode</li> <li>Temperature Setting</li> <li>Fan Speed</li> <li>Louver</li> <li>RCS Operation Prohibited</li> <li>Filter Sign Reset</li> </ul>  |

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

## Various Controllers

### Remote Control Switch JCWB10NEWS

Compatible with the H-LINK II



- The newly-adopted LED-backlit LCD provides enhanced legibility. Large, clear character display is realized by Full Dot Matrix LCD.
- The newly-adopted directional key provides optimized operation. The manual operation is facilitated by reducing number of switch buttons from 13 to 9.
- "Schedule Timer" provides the timer operations for "Run/Stop" and "Temperature Setting". The weekly management is available by using this function. In addition "Holiday Setting" and "Schedule ON/OFF" setting are available.
- 4 type of menus are offered for flexible use as follows: Menu: Contains "Schedule", "Elevating Grill", etc. for users. Help Menu: Contains information provided by this remote control switch for users such as "About Indication", "Contact Information", etc. Test Run Menu: This menu provides the functions installation of this remote control switch. Check Menu: This menu provides the functions for service and maintain.

### Remote Control Switch JCWA10NEWQ

Compatible with the H-LINK II



- The JCWA11NEWQ 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 JCWA11NEWQ 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 JCRA10NEWQ

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 JCJA10NEWS

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.

### Centralized ON/OFF Controller JCOA111EWS

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, 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.

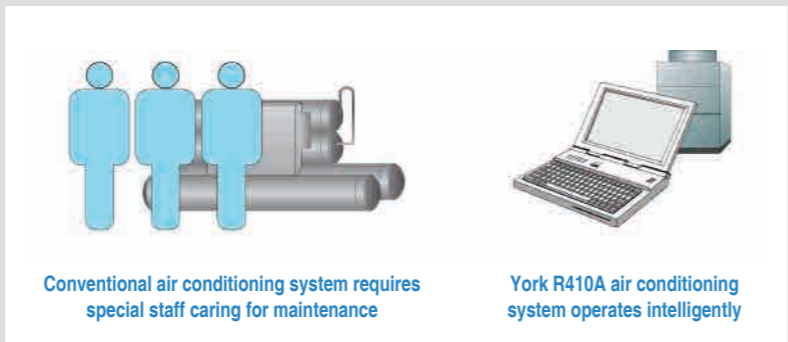


# Maintenance

## Comprehensive Maintenance and Service

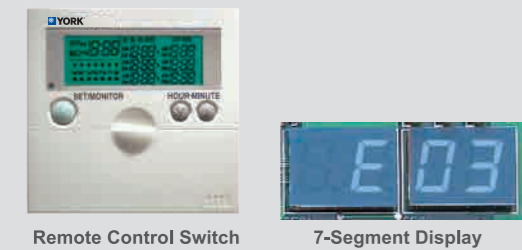
### Intelligent Operation

YOUR VRF JVOH series can be operated intelligently with no requirement for special operating room, thus the system can be controlled with high flexibility and convenience.



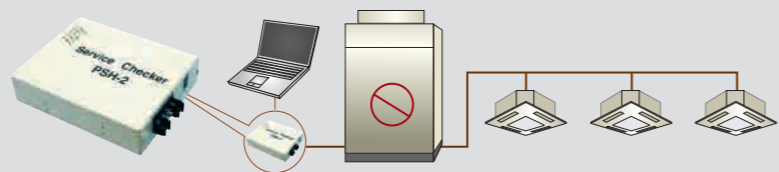
### Self-diagnosis and Intelligent Operation Inspection

Trough remote controller or 7-segment LED displays on outdoor units, the self-diagnosing error code and information can be easily achieved. System can be operated, managed and maintained conveniently by monitoring the system operating status remotely.



| Code No. | Category     | Content of Abnormally  | Leading Cause                                      |
|----------|--------------|--|--|
| 01       | Indoor Unit  | Tripping of protection device  | Failure of fan motor, drain discharge PCB, relay   |
| 02       | Outdoor Unit | Tripping of protection device  | Activation of PSH                                  |
| 03       | Transmission | Abnormality between indoor and outdoor(or indoor)                            | Incorrect wiring, failure of PCB, tripping of fuse |
| 04       | Inverter     | Inverter trip of outdoor unit  | Failure in transmission of PCB for inverter        |
| 05       | Transmission | Abnormality of power source wiring   | Reverse phase incorrect wiring                     |
| 06       | Voltage Drop | Voltage drop in outdoor unit excessively low or high voltage to outdoor unit | Voltage drop, incorrect wiring, tripping of fuse   |

Service Checker is designed to quickly inspect the units operating status. Problems can be detected easily and resolved quickly.

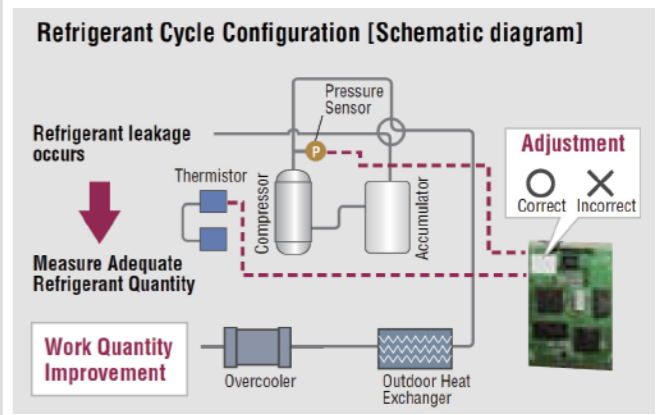


### Automatic Simple Judgement System for Refrigerant Amount

By using this automatic judgment function, the sufficiency of refrigerant amount can be checked in one refrigerant cycle.

**Factors for judgement**  
The appropriate refrigerant amount is calculated based upon the following data:

- Refrigerant Cycle Temperature
- Refrigerant Saturation Temperature
- Outdoor Unit Expansion Valve Data
- Indoor Unit Data



### Double Backup Operation Function

The Backup Operation Function prevents the system from a complete stop when outdoor unit failure occurs.

1.If one outdoor unit fails, the other outdoor unit(s) can keep running if no oil contamination occurs.

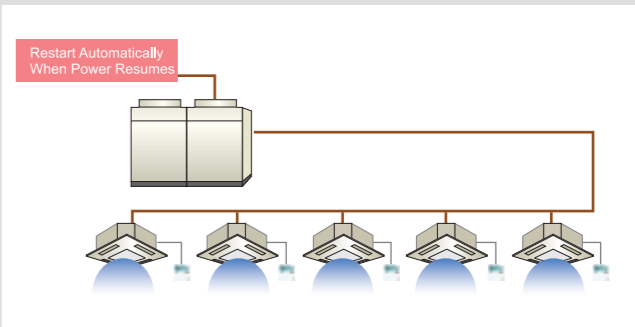
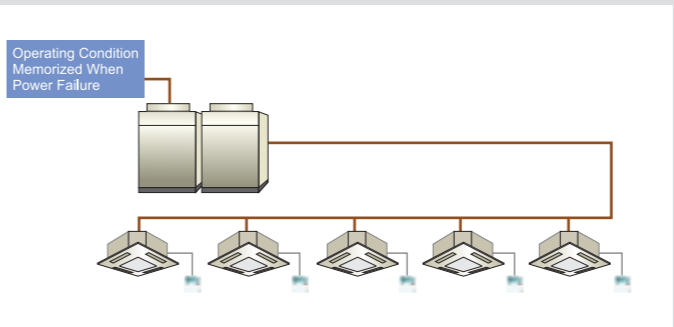


2.If one compressor fails, the other compressor(s) can keep running if no oil contamination occurs.



### Auto-restart Function

The operating data can be recorded automatically in case of accidental power failure. The system auto-restarts and recovers to the former operation mode intelligently.

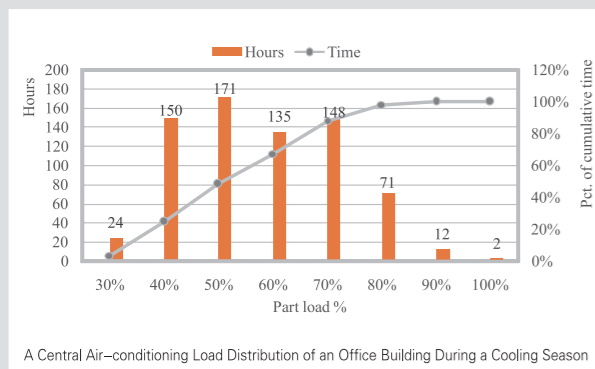




# Comfortable, Healthy and Low Carbon Ultimate User Experience

## Focus on Energy-saving, High Efficient Part-load Operation

York VRF JVOH realizes energy saving by part-load working operation mode in case not all indoor units are under running operation in an office building, the system auto-restarts and recovers to the former operation mode.



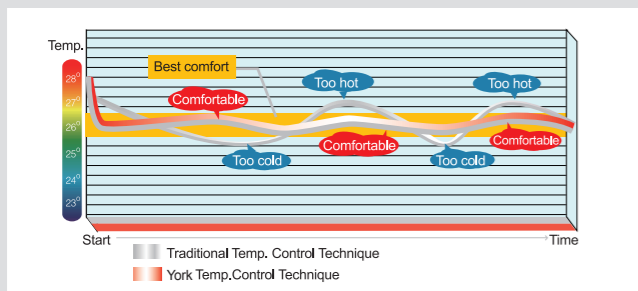
This graph shows that the air-conditioning system is under operation of part load of 40%~ 70% during the majority of running hours. Therefore, energy saving under part-load operation is significant.



## Focus on Comfort, Harmony Between People and Air

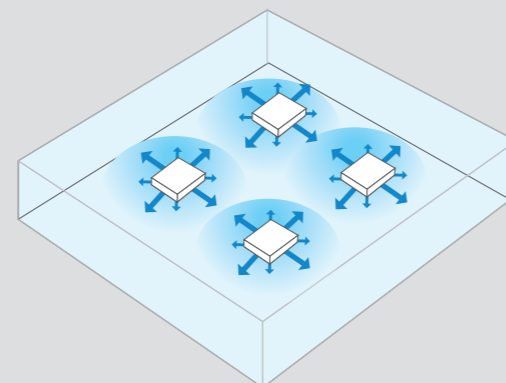
### Particular Outlet Air Temperature Sensor Designed for Temperature Control

Compared with temperature control of conventional indoor air conditioning system, JVOH series adopt an outlet air temperature sensor to adjust refrigerant flow by controlling high-precision EEV and to maintain the room temperature within 0.5°C of setting temperature, satisfying sensitive users' requirements.



### 4-Way Circulating Airflow Causes Temperature Uniformity

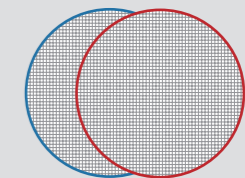
York 4-way cassette type distributes the airflow to every corner of the room by in 360 degree air supply by adjusting louver positions. By adopting 4-Way circulating airflow structure, air-conditioned flow can be distributed in all directions.



## Focus on Healthy, Improved Indoor Air Quality

### Sophisticated Antibacterial Technology (Indoor Units)

York high performance antibacterial filter adopts double-layer antibacterial structure (long-acting antibacterial filter and high performance antibacterial filter), adds active enzyme with a strong bactericidal function, which can restrain and kill bacteria and mould attached to the filter surface, as well as inhibit the reproduction of bacteria and mould on the high performance filter material and maintain fresh air in room.



Double-layer Antibacterial Filter

## Focus on Environment-Friendly, Create Low Carbon Life Space

### RoHS Reaction

Actively respond to Europe RoHS requirement, control the use of hazardous substance strictly.



### R410A Environment-Friendly Refrigerant, Protect Ozone Layer

R410A is a new non-toxic and harmless environmentally friendly refrigerant which has been worldwide and applied. York's newly launched JVOH series adopt R410A refrigerant that doesn't destroy the environment, brings temperature, humidity, freshness and health to every inch of space as well as saving energy.










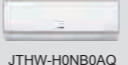


# Outdoor Units & Indoor Units



|               |                |      |                |                          |                |                |                |
|---------------|----------------|------|----------------|--------------------------|----------------|----------------|----------------|
| 8HP/10HP/12HP | 14HP/16HP/18HP | 20HP | 22HP/24HP/26HP | 28HP/30HP/32HP/34HP/36HP | 38HP/40HP/42HP | 44HP/46HP/48HP | 50HP/52HP/54HP |
|---------------|----------------|------|----------------|--------------------------|----------------|----------------|----------------|

| Outdoor Units Combination |                |                                 |                |                |                          |    |
|---------------------------|----------------|---------------------------------|----------------|----------------|--------------------------|----|
| HP                        | Model          | Nominal Cooling Capacity ( kW ) | Combination    |                | Connectable Indoor Units |    |
| 8 HP                      | JVOH080VVER0AQ | 22.4                            | JVOH080VVER0AQ |                | 13                       |    |
| 10 HP                     | JVOH100VVER0AQ | 28.0                            | JVOH100VVER0AQ |                | 16                       |    |
| 12 HP                     | JVOH120VVER0AQ | 33.5                            | JVOH120VVER0AQ |                | 19                       |    |
| 14 HP                     | JVOH140VVER0AQ | 40.0                            | JVOH140VVER0AQ |                | 23                       |    |
| 16 HP                     | JVOH160VVER0AQ | 45.0                            | JVOH160VVER0AQ |                | 26                       |    |
| 18 HP                     | JVOH180VVER0AQ | 50.0                            | JVOH180VVER0AQ |                | 26                       |    |
| 20 HP                     | JVOH200VVER0AQ | 56.0                            | JVOH080VVER0AQ | JVOH120VVER0AQ | 33                       |    |
| 22 HP                     | JVOH220VVER0AQ | 61.5                            | JVOH080VVER0AQ | JVOH140VVER0AQ | 36                       |    |
| 24 HP                     | JVOH240VVER0AQ | 69.0                            | JVOH100VVER0AQ | JVOH140VVER0AQ | 40                       |    |
| 26 HP                     | JVOH260VVER0AQ | 73.0                            | JVOH120VVER0AQ | JVOH140VVER0AQ | 43                       |    |
| 28 HP                     | JVOH280VVER0AQ | 80.0                            | JVOH140VVER0AQ | JVOH140VVER0AQ | 47                       |    |
| 30 HP                     | JVOH300VVER0AQ | 85.0                            | JVOH140VVER0AQ | JVOH160VVER0AQ | 50                       |    |
| 32 HP                     | JVOH320VVER0AQ | 90.0                            | JVOH160VVER0AQ | JVOH160VVER0AQ | 53                       |    |
| 34 HP                     | JVOH340VVER0AQ | 95.0                            | JVOH160VVER0AQ | JVOH180VVER0AQ | 56                       |    |
| 36 HP                     | JVOH360VVER0AQ | 100.0                           | JVOH180VVER0AQ | JVOH180VVER0AQ | 59                       |    |
| 38 HP                     | JVOH380VVER0AQ | 109.0                           | JVOH120VVER0AQ | JVOH120VVER0AQ | JVOH140VVER0AQ           | 64 |
| 40 HP                     | JVOH400VVER0AQ | 112.0                           | JVOH120VVER0AQ | JVOH120VVER0AQ | JVOH160VVER0AQ           | 64 |
| 42 HP                     | JVOH420VVER0AQ | 118.0                           | JVOH120VVER0AQ | JVOH120VVER0AQ | JVOH180VVER0AQ           | 64 |
| 44 HP                     | JVOH440VVER0AQ | 125.0                           | JVOH120VVER0AQ | JVOH140VVER0AQ | JVOH180VVER0AQ           | 64 |
| 46 HP                     | JVOH460VVER0AQ | 132.0                           | JVOH120VVER0AQ | JVOH160VVER0AQ | JVOH180VVER0AQ           | 64 |
| 48 HP                     | JVOH480VVER0AQ | 136.0                           | JVOH120VVER0AQ | JVOH180VVER0AQ | JVOH180VVER0AQ           | 64 |
| 50 HP                     | JVOH500VVER0AQ | 140.0                           | JVOH140VVER0AQ | JVOH180VVER0AQ | JVOH180VVER0AQ           | 64 |
| 52 HP                     | JVOH520VVER0AQ | 145.0                           | JVOH160VVER0AQ | JVOH180VVER0AQ | JVOH180VVER0AQ           | 64 |
| 54 HP                     | JVOH540VVER0AQ | 150.0                           | JVOH180VVER0AQ | JVOH180VVER0AQ | JVOH180VVER0AQ           | 64 |

## Indoor units

| Type  | Model  | 0.8HP | 1.0HP | 1.3HP | 1.5HP | 1.8HP | 2.0HP | 2.3HP | 2.5HP | 3.0HP | 3.3HP | 4.0HP | 5.0HP | 6.0HP | 8.0HP | 10HP |
|---|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| In-the-ceiling<br>(Low/Medium Static Ducted)  | <br>JTDL(H)H0NB(F)0AQ   | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●    |
| In-the-ceiling<br>(Medium/High Static Ducted) | <br>JTDM(H)H0NB(F)0AQ | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●    |
| In-the-ceiling<br>(Compact Ducted)            | <br>JTDN-H0PB0AQ      | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     |       |       |       |       |       |       |      |
| In-the-ceiling<br>(Slim Ducted)               | <br>JTDS-H0PB0AQ      | ●     | ●     | ●     | ●     |       |       |       |       |       |       |       |       |       |       |      |
| Four-Way Cassette                             | <br>JTKE-H0PS0AQ      |       | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     | ●     |       |      |
| Two-Way Cassette                              | <br>JTKE-H0PS0AS      | ●     | ●     |       | ●     |       | ●     |       | ●     | ●     |       | ●     | ●     | ●     |       |      |
| High Wall                                     | <br>JTHW-H0NB0AQ      | ●     | ●     | ●     | ●     | ●     | ●     | ●     |       |       |       |       |       |       |       |      |
| Floor   | <br>JTFE-H0NB0AE      |       | ●     |       | ●     |       |       |       |       |       |       |       |       |       |       |      |
| Floor Concealed                               | <br>JTFC-H0NB0AQ      |       | ●     |       | ●     |       | ●     |       | ●     |       |       |       |       |       |       |      |

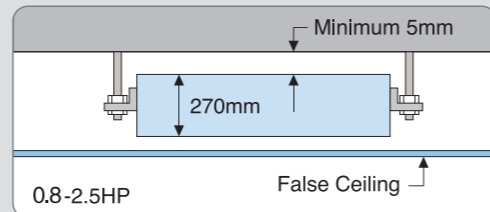
# In-the-ceiling (Low/Medium Static Ducted)



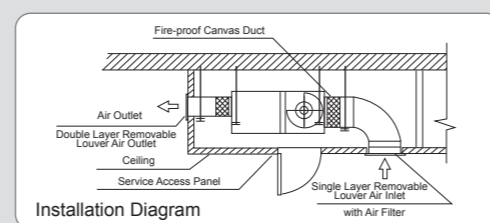
## York VRF -JTDL(M) Technique Features

### Installation Space-saving

Less than 270mm in height can be easily fit into the limited space in the false ceiling (0.8HP to 2.5HP).



### Flexibly Satisfy Varied Requests on Installation



**NOTE:**  
When bottom air inlet is adopted, sound pressure will increase according to factors such as installation mode and the room structure.

### Fresh Indoor Air

By introducing fresh outdoor air and being equipped with air filter to keep indoor air clean.

### Excellent Air Flow

Cooling/heating air is distributed from the unit to indoor space through ducts, which creates a comfortable environment.

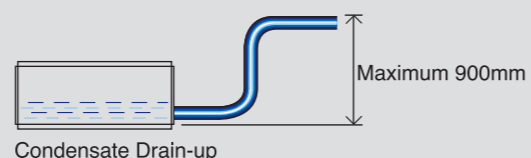
### Quiet Operation

Far less noise, much quieter operation.

| Model              | High Fan Speed | Low Fan Speed |
|--------------------|----------------|---------------|
| JTDL022HONN(B)O AQ | 29.5dB         | 24.5dB        |
| JTDL028HONN(B)O AQ | 29.5dB         | 24.5dB        |
| JTDL036HONN(B)O AQ | 34dB           | 30dB          |
| JTDL043HONN(B)O AQ | 34dB           | 30dB          |
| JTDL050HONN(B)O AQ | 34dB           | 30dB          |
| JTDL056HONN(B)O AQ | 34dB           | 30dB          |
| JTDL063HONN(B)O AQ | 35dB           | 31dB          |
| JTDL071HONN(B)O AQ | 35dB           | 31dB          |
| JTDL084HONN(B)O AQ | 40dB           | 33dB          |
| JTDL090HONN(B)O AQ | 40dB           | 33dB          |
| JTDL112HONN(B)O AQ | 41.5dB         | 35dB          |
| JTDL142HONN(B)O AQ | 42dB           | 35dB          |
| JTDL160HONN(B)O AQ | 43dB           | 37dB          |
| JTDM224HONM(F)O AQ | 50dB           |               |
| JTDM280HONM(F)O AQ | 52dB           |               |

### Optional Parts

Drain-up mechanism can be supplied as optional part.



| Indoor Unit                                | In-the-ceiling (Low/Medium Static Ducted) |  |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |  |
|--|---|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
|  | Model                                     | JTDL022 HONB0AQ                                  | JTDL028 HONB0AQ | JTDL036 HONB0AQ | JTDL043 HONB0AQ | JTDL050 HONB0AQ | JTDL056 HONB0AQ | JTDL063 HONB0AQ | JTDL071 HONB0AQ | JTDL084 HONB0AQ | JTDL090 HONB0AQ | JTDL112 HONB0AQ | JTDL142 HONB0AQ | JTDL160 HONB0AQ | JTDM224 HONF0AQ | JTDM280 HONF0AQ |  |
| Power Supply                               |   | AC1Φ, 220V/60Hz                                  |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 | AC3Φ, 380V/60Hz |  |
| Nominal Cooling Capacity *1)               | kW  | 2.3  | 2.9             | 3.8             | 4.4             | 5.2             | 5.8             | 6.5             | 7.3             | 8.7             | 9.3             | 11.6            | 14.5            | 16.5            | 23.2            | 28.6            |  |
|  | kcal/h                                    | 2,000  | 2,500           | 3,300           | 3,800           | 4,500           | 5,000           | 5,600           | 6,300           | 7,500           | 8,000           | 10,000          | 12,500          | 14,200          | 20,000          | 24,600          |  |
|  | Btu/h                                     | 7,800  | 9,900           | 13,000          | 15,000          | 17,700          | 19,800          | 22,200          | 24,900          | 29,700          | 31,700          | 39,600          | 49,500          | 56,300          | 79,200          | 97,600          |  |
| Nominal Cooling Capacity *2)               | kW  | 2.2  | 2.8             | 3.6             | 4.3             | 5.0             | 5.6             | 6.3             | 7.1             | 8.4             | 9.0             | 11.2            | 14.2            | 16.0            | 22.4            | 28.0            |  |
|  | kcal/h                                    | 1,900  | 2,400           | 3,100           | 3,700           | 4,300           | 4,800           | 5,400           | 6,100           | 7,200           | 7,700           | 9,600           | 12,200          | 13,800          | 19,300          | 24,100          |  |
|  | Btu/h                                     | 7,500  | 9,600           | 12,300          | 14,700          | 17,100          | 19,100          | 21,500          | 24,200          | 28,700          | 30,700          | 38,200          | 48,500          | 54,600          | 76,500          | 95,600          |  |
| Nominal Heating Capacity                   | kW  | 2.8  | 3.3             | 4.2             | 4.9             | 5.6             | 6.5             | 7.5             | 8.5             | 9.6             | 10.0            | 13.0            | 16.3            | 18.0            | 25.0            | 31.5            |  |
|  | kcal/h                                    | 2,400  | 2,800           | 3,600           | 4,200           | 4,800           | 5,600           | 6,500           | 7,300           | 8,300           | 8,600           | 11,200          | 14,000          | 15,500          | 21,500          | 27,100          |  |
|  | Btu/h                                     | 9,600  | 11,300          | 14,300          | 16,700          | 19,100          | 22,200          | 25,600          | 29,000          | 32,800          | 34,100          | 44,400          | 55,600          | 61,400          | 85,300          | 107,500         |  |
| Sound Pressure Level (High/Medium/Low)     | dB(A)                                     | 29.5-26-24.5                                     | 29.5-26-24.5    | 34-32-30        | 34-32-30        | 34-32-30        | 34-32-30        | 35-33-31        | 35-33-31        | 40-37-33        | 40-37-33        | 41.5-39-35      | 42-39-35        | 43-39-37        | 50              | 52              |  |
| Outer Dimensions                           | H mm                                      | 270  | 270             | 270             | 270             | 270             | 270             | 270             | 270             | 350             | 350             | 350             | 350             | 350             | 470             | 470             |  |
|  | W mm                                      | 650+75   | 650+75          | 650+75          | 650+75          | 900+75          | 900+75          | 900+75          | 900+75          | 900+75          | 900+75          | 900+75          | 1300+75         | 1300+75         | 1060            | 1250            |  |
|  | D mm                                      | 720  | 720             | 720             | 720             | 720             | 720             | 720             | 720             | 800             | 800             | 800             | 800             | 800             | 1120            | 1120            |  |
| Net Weight                                 | kg  | 26   | 26              | 26              | 26              | 35              | 35              | 35              | 35              | 46              | 46              | 46              | 58              | 58              | 96              | 104             |  |
|  | (lbs)                                     | (57)   | (57)            | (57)            | (57)            | (77)            | (77)            | (77)            | (77)            | (101)           | (101)           | (101)           | (128)           | (128)           | (211)           | (238)           |  |
| Refrigerant                                |   | R410A(Nitrogen-charged for Corrosion-resistance) |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |  |
| Indoor Fan Air Flow Rate (High/Medium/Low) | m <sup>3</sup> /min                       | 8/7/6  | 8/7/6           | 13/11/9         | 13/11/9         | 15/13/11        | 15/13/11        | 16/14/12        | 16/14/12        | 25/21/17        | 25/21/17        | 27/23/19        | 37/31/25        | 38/35/29        | 58              | 72              |  |
| Motor Power                                | W   | 20   | 20              | 40              | 40              | 45              | 45              | 45              | 45              | 100             | 100             | 100             | 160             | 180             | 500             | 750             |  |
| Connections Refrigerant Piping             |   | Flare-nut Connection(with Flare Nuts)            |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 | Brazing         |  |
| Liquid Line                                | mm  | Φ6.35  | Φ6.35           | Φ6.35           | Φ6.35           | Φ6.35           | Φ6.35           | Φ9.53           | Φ9.53           | Φ9.53           | Φ9.53           | Φ9.53           | Φ9.53           | Φ9.53           | Φ9.53           | Φ9.53           |  |
|  | (in.)                                     | (1/4)  | (1/4)           | (1/4)           | (1/4)           | (1/4)           | (1/4)           | (3/8)           | (3/8)           | (3/8)           | (3/8)           | (3/8)           | (3/8)           | (3/8)           | (3/8)           | (3/8)           |  |
| Gas Line                                   | mm  | Φ12.7  | Φ12.7           | Φ12.7           | Φ12.7           | Φ15.88          | Φ15.88          | Φ15.88          | Φ15.88          | Φ15.88          | Φ15.88          | Φ15.88          | Φ15.88          | Φ15.88          | Φ19.05          | Φ22.2           |  |
|  | (in.)                                     | (1/2)  | (1/2)           | (1/2)           | (1/2)           | (5/8)           | (5/8)           | (5/8)           | (5/8)           | (5/8)           | (5/8)           | (5/8)           | (5/8)           | (5/8)           | (3/4)           | (7/8)           |  |
| Condensate Drain                           |   | VP25(Outer Diameter Φ32)                         |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |  |
| External Static Pressure                   | Pa  | 30   | 30              | 30              | 30              | 30              | 30              | 30              | 30              | 60              | 60              | 60              | 60              | 60              | 100             | 100             |  |
| Approximate Packing Measurement            | m <sup>3</sup>                            | 0.21   | 0.21            | 0.21            | 0.21            | 0.27            | 0.27            | 0.27            | 0.27            | 0.38            | 0.38            | 0.38            | 0.52            | 0.52            | 0.90            | 0.90            |  |

**NOTES:**

- The nominal cooling capacity and heating capacity are based on following conditions:  
 Cooling Operation Conditions: Indoor Air Inlet Temperature: 27°C DB(80°F DB)  
 Outdoor Air Inlet Temperature: 19.5°C WB (67°F WB)  
 Heating Operation Conditions: Indoor Air Inlet Temperature: 20°C DB(68°F DB)  
 Outdoor Air Inlet Temperature: 7°C DB(45°F DB)  
 Outdoor Air Inlet Temperature: 35°C DB(95°F DB)  
 Piping Length: 7.5 Meters Piping Lift: 0 Meter
- The sound pressure level is based on following conditions. 1.5m beneath the unit.  
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.  
 When bottom air inlet is adopted, sound pressure will increase according to factors such as installation mode and the room structure.
- The data for external pressure indicates standard pressure setting values when air filter is not used.

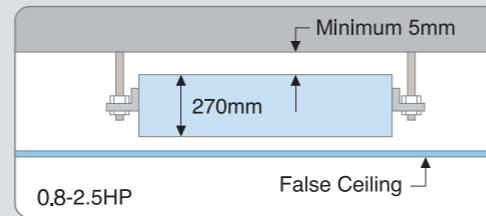
# In-the-ceiling (Medium/High Static Ducted)



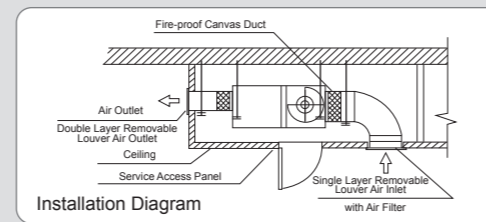
## York VRF -JTDM(H) Technique Features

### Installation Space-saving

Less than 270mm in height can be easily fit into the limited space in the false ceiling (0.8HP to 2.5HP).



### Flexibly Satisfy Varied Requests on Installation



**NOTE:**  
When bottom air inlet is adopted, sound pressure will increase according to factors such as installation mode and the room structure.

### Higher External Static Pressure

Better installation flexibility at site, longer ducts can be connected.

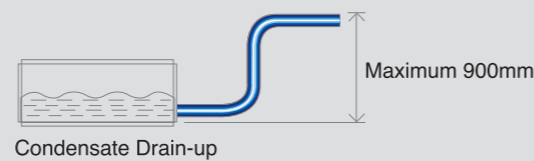
### Quiet Operation

Far less noise, much quieter operation.

| Model             | High Fan Speed | Low Fan Speed |
|-------------------|----------------|---------------|
| JTDM022HONF(B)0AQ | 35dB           | 31dB          |
| JTDM028HONF(B)0AQ | 35dB           | 31dB          |
| JTDM036HONF(B)0AQ | 35dB           | 31dB          |
| JTDM043HONF(B)0AQ | 35dB           | 31dB          |
| JTDM050HONF(B)0AQ | 35dB           | 31dB          |
| JTDM056HONF(B)0AQ | 35dB           | 31dB          |
| JTDM063HONF(B)0AQ | 36dB           | 32dB          |
| JTDM071HONF(B)0AQ | 36dB           | 32dB          |
| JTDH084HONF(B)0AQ | 42dB           | 35dB          |
| JTDH090HONF(B)0AQ | 42dB           | 35dB          |
| JTDH112HONF(B)0AQ | 43dB           | 36dB          |
| JTDH142HONF(B)0AQ | 44dB           | 37dB          |
| JTDH160HONF(B)0AQ | 45dB           | 37dB          |
| JTDH224HONM(F)0AQ | 50dB           |               |
| JTDH280HONM(F)0AQ | 52dB           |               |

### Optional Parts

Drain-up mechanism can be supplied as optional part.



| Indoor Unit                                | In-the-ceiling (Medium/High Static Ducted) |  |                |                |                |                |                |                |                |                |                |                |                |                |                |                 |  |
|--|--|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|--|
|  | Model                                      | JTDM022 HON0AQ                                   | JTDM028 HON0AQ | JTDM036 HON0AQ | JTDM043 HON0AQ | JTDM050 HON0AQ | JTDM056 HON0AQ | JTDM063 HON0AQ | JTDM071 HON0AQ | JTDH084 HON0AQ | JTDH090 HON0AQ | JTDH112 HON0AQ | JTDH142 HON0AQ | JTDH160 HON0AQ | JTDH224 HON0AQ | JTDH280 HON0AQ  |  |
| Power Supply                               |  | AC1Φ, 220V/60Hz                                  |                |                |                |                |                |                |                |                |                |                |                |                |                | AC3Φ, 380V/60Hz |  |
| Nominal Cooling Capacity*1)                | kW   | 2.3  | 2.9            | 3.8            | 4.4            | 5.2            | 5.8            | 6.5            | 7.3            | 8.7            | 9.3            | 11.6           | 14.5           | 16.5           | 23.2           | 28.6            |  |
|  | kcal/h                                     | 2,000  | 2,500          | 3,300          | 3,800          | 4,500          | 5,000          | 5,600          | 6,300          | 7,500          | 8,000          | 10,000         | 12,500         | 14,200         | 20,000         | 24,600          |  |
|  | Btu/h                                      | 7,800  | 9,900          | 13,000         | 15,000         | 17,700         | 19,800         | 22,200         | 24,900         | 29,700         | 31,700         | 39,600         | 49,500         | 56,300         | 79,200         | 97,600          |  |
| Nominal Cooling Capacity*2)                | kW   | 2.2  | 2.8            | 3.6            | 4.3            | 5.0            | 5.6            | 6.3            | 7.1            | 8.4            | 9.0            | 11.2           | 14.2           | 16.0           | 22.4           | 28.0            |  |
|  | kcal/h                                     | 1,900  | 2,400          | 3,100          | 3,700          | 4,300          | 4,800          | 5,400          | 6,100          | 7,200          | 7,700          | 9,600          | 12,200         | 13,800         | 19,300         | 24,100          |  |
|  | Btu/h                                      | 7,500  | 9,600          | 12,300         | 14,700         | 17,100         | 19,100         | 21,500         | 24,200         | 28,700         | 30,700         | 38,200         | 48,500         | 54,600         | 76,500         | 95,600          |  |
| Nominal Heating Capacity                   | kW   | 2.8  | 3.3            | 4.2            | 4.9            | 5.6            | 6.5            | 7.5            | 8.5            | 9.6            | 10.0           | 13.0           | 16.3           | 18.0           | 25.0           | 31.5            |  |
|  | kcal/h                                     | 2,400  | 2,800          | 3,600          | 4,200          | 4,800          | 5,600          | 6,500          | 7,300          | 8,300          | 8,600          | 11,200         | 14,000         | 15,500         | 21,500         | 27,100          |  |
|  | Btu/h                                      | 9,600  | 11,300         | 14,300         | 16,700         | 19,100         | 22,200         | 25,600         | 29,000         | 32,800         | 34,100         | 44,400         | 55,600         | 61,400         | 85,300         | 107,500         |  |
| Sound Pressure Level (High/Medium/Low)     | dB(A)                                      | 35-33-31   | 35-33-31       | 35-33-31       | 35-33-31       | 35-33-31       | 35-33-31       | 36-34-32       | 36-34-32       | 42-39-35       | 42-39-35       | 43-40-36       | 44-41-37       | 45-41-37       | 50             | 52              |  |
| Outer Dimensions                           | H  | mm   | 270            | 270            | 270            | 270            | 270            | 270            | 270            | 350            | 350            | 350            | 350            | 350            | 470            | 470             |  |
|  | W  | mm   | 650+75         | 650+75         | 650+75         | 650+75         | 900+75         | 900+75         | 900+75         | 900+75         | 900+75         | 900+75         | 1300+75        | 1300+75        | 1060           | 1250            |  |
|  | D  | mm   | 720            | 720            | 720            | 720            | 720            | 720            | 720            | 800            | 800            | 800            | 800            | 800            | 1120           | 1120            |  |
| Net Weight                                 | kg   | 26   | 26             | 26             | 26             | 35             | 35             | 35             | 35             | 46             | 46             | 46             | 58             | 58             | 96             | 104             |  |
|  | (lbs)                                      | (57)   | (57)           | (57)           | (57)           | (77)           | (77)           | (77)           | (77)           | (101)          | (101)          | (101)          | (128)          | (128)          | (211)          | (238)           |  |
| Refrigerant                                |  | R410A(Nitrogen-charged for Corrosion-resistance) |                |                |                |                |                |                |                |                |                |                |                |                |                |                 |  |
| Indoor Fan Air Flow Rate (High/Medium/Low) | m <sup>3</sup> /min                        | 8/7/6  | 8/7/6          | 13/11/9        | 13/11/9        | 15/13/11       | 15/13/11       | 16/14/12       | 16/14/12       | 25/21/17       | 25/21/17       | 27/23/19       | 37/31/25       | 38/35/29       | 58             | 72              |  |
| Motor Power                                | W  | 35   | 35             | 60             | 60             | 75             | 75             | 75             | 75             | 120            | 120            | 120            | 200            | 280            | 650            | 900             |  |
| Connections Refrigerant Piping             |  | Flare-nut Connection(with Flare Nuts)            |                |                |                |                |                |                |                |                |                |                |                |                |                | Brazing         |  |
| Liquid Line                                | mm   | Φ6.35  | Φ6.35          | Φ6.35          | Φ6.35          | Φ6.35          | Φ6.35          | Φ9.53          | Φ9.53          | Φ9.53          | Φ9.53          | Φ9.53          | Φ9.53          | Φ9.53          | Φ9.53          | Φ9.53           |  |
|  | (in.)                                      | (1/4)  | (1/4)          | (1/4)          | (1/4)          | (1/4)          | (1/4)          | (3/8)          | (3/8)          | (3/8)          | (3/8)          | (3/8)          | (3/8)          | (3/8)          | (3/8)          | (3/8)           |  |
| Gas Line                                   | mm   | Φ12.7  | Φ12.7          | Φ12.7          | Φ12.7          | Φ15.88         | Φ15.88         | Φ15.88         | Φ15.88         | Φ15.88         | Φ15.88         | Φ15.88         | Φ15.88         | Φ15.88         | Φ19.05         | Φ22.2           |  |
|  | (in.)                                      | (1/2)  | (1/2)          | (1/2)          | (1/2)          | (5/8)          | (5/8)          | (5/8)          | (5/8)          | (5/8)          | (5/8)          | (5/8)          | (5/8)          | (5/8)          | (3/4)          | (7/8)           |  |
| Condensate Drain                           |  | VP25(Outer Diameter Φ32)                         |                |                |                |                |                |                |                |                |                |                |                |                |                |                 |  |
| External Static Pressure                   | Pa   | 50(80)   | 50(80)         | 50(80)         | 50(80)         | 50(80)         | 50(80)         | 50(80)         | 50(80)         | 120(90)        | 120(90)        | 120(90)        | 120(90)        | 120(90)        | 180            | 180             |  |
| Approximate Packing Measurement            | m <sup>3</sup>                             | 0.21   | 0.21           | 0.21           | 0.21           | 0.27           | 0.27           | 0.27           | 0.27           | 0.38           | 0.38           | 0.38           | 0.52           | 0.52           | 0.90           | 1.06            |  |

- NOTES:**
- The nominal cooling capacity and heating capacity are based on following conditions:  

|   |  |
|---|--|
| <b>Cooling Operation Conditions</b><br>Indoor Air Inlet Temperature: 27°C DB(80°F DB)<br>*1): 19.5°C WB (67°F WB)<br>*2): 19.0°C WB (66.2°F WB) | <b>Heating Operation Conditions</b><br>Indoor Air Inlet Temperature: 20°C DB(68°F DB)<br>Outdoor Air Inlet Temperature: 7°C DB(45°F DB)<br>6°C WB(43°F WB) |
|---|--|

 Outdoor Air Inlet Temperature: 35°C DB(95°F DB)  
 Piping Length: 7.5 Meters Piping Lift: 0 Meter
  - The sound pressure level is based on following conditions. 1.5m beneath the unit.  
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.  
 When bottom air inlet is adopted, sound pressure will increase according to factors such as installation mode and the room structure.
  - The data for external pressure indicates standard pressure setting values when air filter is not used.

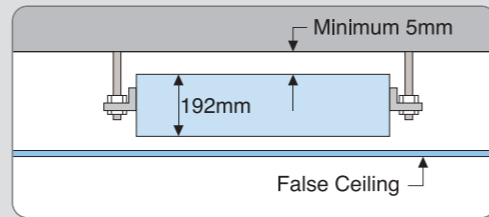
# In-the-ceiling (Compact Ducted)



## York VRF -JTDN Technique Features

### Installation Space-saving

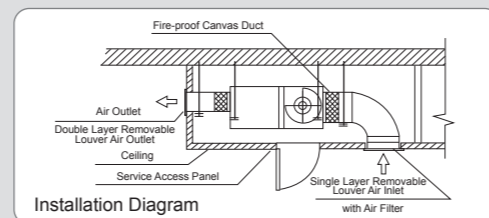
With a height of 192mm may be easily installed inside the low height residential ceiling.



### Broad Range of External Static Pressure

10Pa(or30Pa), flexibly supports a wide range of installation conditions at site, e.g. longer ducts and shorter ducts supplied.

### Flexibly Satisfy Varied Requests on Installation



NOTE:  
When bottom air inlet is adopted, sound pressure will increase according to factors such as installation mode and the room structure.

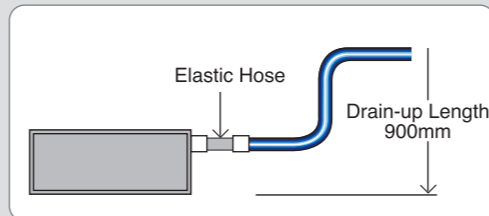
### Quiet Operation

Air flow rate can be adjusted by 3 grades, lower noise in lower grade.

| Model             | High Sound Pressure(dB) | Low Sound Pressure(dB) |
|-------------------|-------------------------|------------------------|
| JTDN022H0PN(B)0AQ | 27                      | 21                     |
| JTDN028H0PN(B)0AQ | 27                      | 21                     |
| JTDN036H0PN(B)0AQ | 31                      | 26                     |
| JTDN043H0PN(B)0AQ | 31                      | 26                     |
| JTDN050H0PN(B)0AQ | 34                      | 28                     |
| JTDN056H0PN(B)0AQ | 34                      | 28                     |
| JTDN063H0PN(B)0AQ | 35                      | 30                     |
| JTDN071H0PN(B)0AQ | 35                      | 30                     |

### Drain-up Mechanism as Standard Part

Drain-up length achieves 900mm which enables convenient drain piping and enlarges the flexibility of installation.



| Indoor Unit                                |                     | In-the-ceiling (Compact Ducted)                  |                 |                 |                 |                 |                 |                 |                 |
|--|---------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Model                                      |                     | JTDN022 HOPB0AQ                                  | JTDN028 HOPB0AQ | JTDN036 HOPB0AQ | JTDN043 HOPB0AQ | JTDN050 HOPB0AQ | JTDN056 HOPB0AQ | JTDN063 HOPB0AQ | JTDN071 HOPB0AQ |
| Power Supply                               |                     | AC1Φ, 220V/60Hz                                  |                 |                 |                 |                 |                 |                 |                 |
| Nominal Cooling Capacity *1)               | kW                  | 2.3  | 2.9             | 3.8             | 4.4             | 5.2             | 5.8             | 6.5             | 7.3             |
|  | kcal/h              | 2,000  | 2,500           | 3,300           | 3,800           | 4,500           | 5,000           | 5,600           | 6,300           |
|  | Btu/h               | 7,800  | 9,900           | 13,000          | 15,000          | 17,700          | 19,800          | 22,200          | 24,900          |
| Nominal Cooling Capacity *2)               | kW                  | 2.2  | 2.8             | 3.6             | 4.3             | 5.0             | 5.6             | 6.3             | 7.1             |
|  | kcal/h              | 1,900  | 2,400           | 3,100           | 3,700           | 4,300           | 4,800           | 5,400           | 6,100           |
|  | Btu/h               | 7,500  | 9,600           | 12,300          | 14,700          | 17,100          | 19,100          | 21,500          | 24,200          |
| Nominal Heating Capacity                   | kW                  | 2.8  | 3.3             | 4.2             | 4.9             | 5.6             | 6.5             | 7.5             | 8.5             |
|  | kcal/h              | 2,400  | 2,800           | 3,600           | 4,200           | 4,800           | 5,600           | 6,500           | 7,300           |
|  | Btu/h               | 9,600  | 11,300          | 14,300          | 16,700          | 19,100          | 22,200          | 25,600          | 29,000          |
| Sound Pressure Level (High/Medium/Low)     | dB(A)               | 27-24-21   | 27-24-21        | 31-29-26        | 31-29-26        | 34-30-28        | 34-30-28        | 35-33-30        | 35-33-30        |
| Outer Dimensions                           | H mm                | 192  | 192             | 192             | 192             | 192             | 192             | 192             | 192             |
|  | W mm                | 900  | 900             | 900             | 900             | 1,170           | 1,170           | 1,170           | 1,170           |
|  | D mm                | 447  | 447             | 447             | 447             | 447             | 447             | 447             | 447             |
| Net Weight                                 | kg                  | 20   | 20              | 21              | 21              | 26              | 26              | 26              | 26              |
|  | (lbs)               | (46)   | (46)            | (48)            | (48)            | (59)            | (59)            | (59)            | (59)            |
| Refrigerant                                |                     | R410A(Nitrogen-charged for Corrosion-resistance) |                 |                 |                 |                 |                 |                 |                 |
| Indoor Fan Air Flow Rate (High/Medium/Low) | m <sup>3</sup> /min | 8/7/6  | 8/7/6           | 10/8/7          | 10/8/7          | 14.5/12.5/10.5  | 14.5/12.5/10.5  | 16/14/12        | 16/14/12        |
| Motor Power                                | W                   | 16   | 16              | 25              | 25              | 40              | 40              | 50              | 50              |
| Connections Refrigerant Piping             |                     | Flare-nut Connection(with Flare Nuts)            |                 |                 |                 |                 |                 |                 |                 |
| Liquid Line                                | mm                  | Φ6.35  | Φ6.35           | Φ6.35           | Φ6.35           | Φ6.35           | Φ6.35           | Φ9.53           | Φ9.53           |
|  | (in.)               | (1/4)  | (1/4)           | (1/4)           | (1/4)           | (1/4)           | (1/4)           | (3/8)           | (3/8)           |
| Gas Line                                   | mm                  | Φ12.7  | Φ12.7           | Φ12.7           | Φ12.7           | Φ15.88          | Φ15.88          | Φ15.88          | Φ15.88          |
|  | (in.)               | (1/2)  | (1/2)           | (1/2)           | (1/2)           | (5/8)           | (5/8)           | (5/8)           | (5/8)           |
| Condensate Drain                           |                     | VP25(Outer Diameter Φ32 )                        |                 |                 |                 |                 |                 |                 |                 |
| External Static Pressure                   | Pa                  | 10(30)   | 10(30)          | 10(30)          | 10(30)          | 10(30)          | 10(30)          | 10(30)          | 10(30)          |
| Approximate Packing Measurement            | m <sup>3</sup>      | 0.15   | 0.15            | 0.15            | 0.15            | 0.18            | 0.18            | 0.18            | 0.18            |

- NOTES:
- The nominal cooling capacity and heating capacity are based on following conditions:  
 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)  
 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)  
 Outdoor Air Inlet Temperature: 35°C DB(95°F DB)  
 Piping Length: 7.5 Meters Piping Lift: 0 Meter
  - The sound pressure level is based on following conditions. 1.5m beneath the unit.  
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.  
 When bottom air inlet is adopted, sound pressure will increase according to factors such as installation mode and the room structure.
  - The data for external pressure indicates standard pressure setting values when air filter is not used.

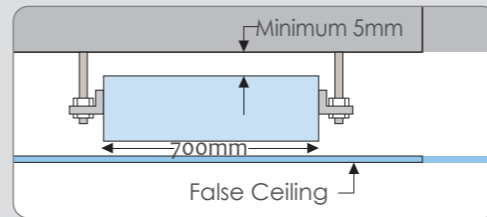
# In-the-ceiling (Slim Ducted)



## York VRF -JTDS Technique Features

### Installation Space-saving

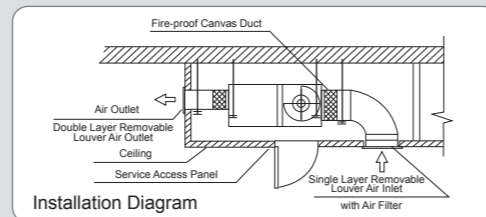
With a width of 700mm may be easily installed inside narrow residential ceiling.



### Broad Range of External Static Pressure

10Pa(or30pa), flexibly supports a wide range of installation conditions at site, e.g. longer ducts and shorter ducts supplied.

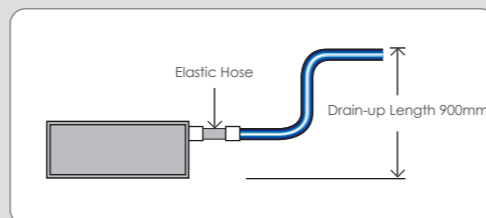
### Flexibly Satisfy Varied Requests on Installation



**NOTE:**  
When bottom air inlet is adopted, sound pressure will increase according to factors such as installation mode and the room structure.

### Drain-up Mechanism as Standard Part

Drain-up length achieves 900mm which enables convenient drain piping and enlarges the flexibility of installation.



| Indoor Unit                                |                     | In-the-ceiling (Slim Ducted)                     |                |                |                |
|--|---------------------|--|----------------|----------------|----------------|
| Model                                      |                     | JTDS022H0PB0AQ                                   | JTDS028H0PB0AQ | JTDS036H0PB0AQ | JTDS043H0PB0AQ |
| Power Supply                               |                     | AC1Φ,220V/60Hz                                   |                |                |                |
| Nominal Cooling Capacity *1)               | kW                  | 2.3  | 2.9            | 3.8            | 4.4            |
|  | kcal/h              | 2,000  | 2,500          | 3,300          | 3,800          |
|  | Btu/h               | 7,800  | 9,900          | 13,000         | 15,000         |
| Nominal Cooling Capacity *2)               | kW                  | 2.2  | 2.8            | 3.6            | 4.3            |
|  | kcal/h              | 1,900  | 2,400          | 3,100          | 3,700          |
|  | Btu/h               | 7,500  | 9,600          | 12,300         | 14,700         |
| Nominal Heating Capacity                   | kW                  | 2.8  | 3.3            | 4.2            | 4.9            |
|  | kcal/h              | 2,400  | 2,800          | 3,600          | 4,200          |
|  | Btu/h               | 9,600  | 11,300         | 14,300         | 16,700         |
| Sound Pressure Level (High/Medium/Low)     | dB(A)               | 28-25-22   | 28-25-22       | 32-30-28       | 32-30-28       |
| Outer Dimensions                           | H                   | mm   | 192            | 192            | 192            |
|  | W                   | mm   | 700            | 700            | 700            |
|  | D                   | mm   | 602            | 602            | 602            |
| Net Weight                                 | kg                  | 21   | 21             | 22             | 22             |
|  | (lbs)               | (46)   | (46)           | (48)           | (48)           |
| Refrigerant                                |                     | R410A(Nitrogen-charged for Corrosion-resistance) |                |                |                |
| Indoor Fan Air Flow Rate (High/Medium/Low) | m <sup>3</sup> /min | 8/7/6  | 8/7/6          | 10/8/7         | 10/8/7         |
| Motor Power                                | W                   | 50   | 50             | 60             | 60             |
| Connections Refrigerant Piping             |                     | Flare-nut Connection(with Flare Nuts)            |                |                |                |
| Liquid Line                                | mm                  | Φ6.35  | Φ6.35          | Φ6.35          | Φ6.35          |
|  | (in.)               | (1/4)  | (1/4)          | (1/4)          | (1/4)          |
| Gas Line                                   | mm                  | Φ12.7  | Φ12.7          | Φ12.7          | Φ12.7          |
|  | (in.)               | (1/2)  | (1/2)          | (1/2)          | (1/2)          |
| Condensate Drain                           |                     | VP25   |                |                |                |
| External Static Pressure                   | Pa                  | 10(30)   | 10(30)         | 10(30)         | 10(30)         |
| Approximate Packing Measurement            | m <sup>3</sup>      | 0.15   | 0.15           | 0.15           | 0.15           |

- NOTES:**
- The nominal cooling capacity and heating capacity are based on following conditions:  

|  |  |
|--|--|
| <b>Cooling Operation Conditions</b>            | <b>Heating Operation Conditions</b>            |
| Indoor Air Inlet Temperature: 27°C DB(80°F DB) | Indoor Air Inlet Temperature: 20°C DB(68°F DB) |
| *1): 19.5°C WB (67°F WB)                       | Outdoor Air Inlet Temperature: 7°C DB(45°F DB) |
| *2): 19.0°C WB (66.2°F WB)                     | 6°C WB(43°F WB)                                |

  
 Outdoor Air Inlet Temperature: 35°C DB(95°F DB)  
 Piping Length: 7.5 Meters    Piping Lift: 0 Meter
  - The sound pressure level is based on following conditions. 1.5m beneath the unit.  
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.  
 When bottom air inlet is adopted, sound pressure will increase according to factors such as installation mode and the room structure.
  - The data for external pressure indicates standard pressure setting values when air filter is not used.



# Two-Way Cassette



## York VRF -JTKT Technique Features

### Improvement of Energy-Saving Operation by Adopting Motion Sensor

- Motion Sensor Function

The motion sensor function can adjust the setting temperature according to the human activity and it controls the air flow volume and the air flow direction. The energy-saving is improved by combining the motion sensor function and individual operating function comparing with the standard operation.

### Improvement of Drain Pump

High-lift DC drain pump makes it possible to raise the drain pipe straight up, up to 850mm from the false ceiling surface.

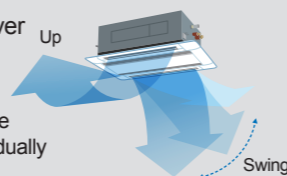
### New Design & High Performance Air Panel

- Simple & Stylish Design

Brand new design air panel. Simple stylish design yet applicable for air inlet flat grill. Can be used as shutter at time of OFF operation.

- 2-way Individual Louver

The newly equipped individual louver setting function allows the angle of 2 louvers to be individually adjusted.



| Indoor Unit                                  |                      | Two-Way Cassette                                  |                    |                    |                     |                     |                    |                                     |                       |                         |
|--|----------------------|---|--------------------|--------------------|---------------------|---------------------|--------------------|-------------------------------------|-----------------------|-------------------------|
| Model  |                      | JTKT022<br>HOPSOAS                                | JTKT028<br>HOPSOAS | JTKT040<br>HOPSOAS | JTKT056<br>HOPSOAS  | JTKT071<br>HOPSOAS  | JTKT080<br>HOPSOAS | JTKT112<br>HOPSOAS                  | JTKT140<br>HOPSOAS    | JTKT160<br>HOPSOAS      |
| Power Supply                                 |                      | AC1Φ,220V/60Hz                                    |                    |                    |                     |                     |                    |                                     |                       |                         |
| Nominal Cooling Capacity*1)                  | kW                   | 2.3   | 2.9                | 4.1                | 5.8                 | 7.3                 | 8.3                | 11.6                                | 14.5                  | 16.5                    |
|  | kcal/h               | 2,000   | 2,500              | 3,550              | 5,000               | 6,300               | 7,100              | 10,000                              | 12,500                | 14,200                  |
|  | Btu/h                | 7,900   | 9,900              | 14,100             | 19,800              | 25,000              | 28,200             | 39,700                              | 49,600                | 56,300                  |
| Nominal Cooling Capacity*2)                  | kW                   | 2.2   | 2.8                | 4.0                | 5.6                 | 7.1                 | 8.0                | 11.2                                | 14.0                  | 16.0                    |
|  | kcal/h               | 1,900   | 2,400              | 3,400              | 4,800               | 6,100               | 6,900              | 9,600                               | 12,000                | 13,800                  |
|  | Btu/h                | 7,500   | 9,600              | 13,600             | 19,100              | 24,200              | 27,300             | 38,200                              | 47,800                | 54,600                  |
| Nominal Heating Capacity                     | kW                   | 2.5   | 3.2                | 4.8                | 6.3                 | 8.5                 | 9.0                | 12.5                                | 16.0                  | 18.0                    |
|  | kcal/h               | 2,100   | 2,800              | 4,100              | 5,400               | 7,300               | 7,700              | 10,700                              | 13,800                | 15,500                  |
|  | Btu/h                | 8,500   | 10,900             | 16,400             | 21,500              | 29,000              | 30,700             | 42,600                              | 54,600                | 61,400                  |
| Sound Pressure Level (High2/High/Medium/Low) | dB                   | 30/29/28/27                                       | 31/29/28/27        | 37/34/31/30        | 39/36/33/30         | 42/39/36/33         | 45/42/38/33        | 43/40/37/34                         | 47/44/41/35           | 48/45/42/39             |
| Dimensions H x W x D                         | mm                   | 298 x 860 x 630                                   |                    |                    |                     |                     |                    | 298 x 1,420 x 630                   |                       |                         |
| Net Weight                                   | kg                   | 23  |                    |                    | 25                  |                     |                    | 39                                  |                       |                         |
| Refrigerant                                  |                      | R410A (Nitrogen-Charged for Corrosion-Resistance) |                    |                    |                     |                     |                    |                                     |                       |                         |
| Air Flow Rate Hi2/Hi/Me/Lo                   | m <sup>3</sup> /min. | 10/9/7.5/6.5                                      | 11/9.5/8.5/7       | 15/13/11.5/10      | 16.5/14.5/12.5/10.5 | 18.5/16.5/14.5/12.5 | 21/18.5/16/12.5    | 30/26.5/23/20                       | 35/31/27/21           | 37/32.5/28.5/24         |
|  | (cfm)                | (353/318/265/230)                                 | (388/335/300/247)  | (530/459/406/353)  | (583/512/441/371)   | (653/583/512/441)   | (742/653/565/441)  | (1,059/936/812/706)                 | (1,236/1,095/953/742) | (1,306/1,148/1,006/847) |
| Motor  | W                    | 57  |                    |                    |                     |                     |                    | 57 x 2                              |                       |                         |
| Connections                                  |                      | Flare-Nut Connection (With Flare Nuts)            |                    |                    |                     |                     |                    |                                     |                       |                         |
| Liquid / Gas                                 | mm                   | Φ 6.35 / Φ 12.7                                   |                    |                    |                     |                     | Φ 9.52 / Φ 15.88   |                                     |                       |                         |
| Condensate Drain                             |                      | VP25  |                    |                    |                     |                     |                    |                                     |                       |                         |
| Approximate Packing Measurement              | m <sup>3</sup>       | 0.24  |                    |                    |                     |                     |                    | 0.36                                |                       |                         |
| Adaptable Panel Model                        |                      | P-AP90DNA (without Monitor Sensor)                |                    |                    |                     |                     |                    | P-AP160DNA (without Monitor Sensor) |                       |                         |
| Color  |                      | Neutral White                                     |                    |                    |                     |                     |                    |                                     |                       |                         |
| Dimensions H x W x D                         | mm                   | 30 x 1,100 x 710                                  |                    |                    |                     |                     |                    | 30 x 1,660 x 710                    |                       |                         |
| Net Weight                                   | kg                   | 7.5   |                    |                    |                     |                     |                    | 10.5                                |                       |                         |
| Approximate Packing Measurement              | m <sup>3</sup>       | 0.13  |                    |                    |                     |                     |                    | 0.20                                |                       |                         |

**NOTES:**

- The nominal cooling capacity and heating capacity are based on following conditions:
 

|   |  |
|---|--|
| <b>Cooling Operation Conditions</b>             | <b>Heating Operation Conditions</b>            |
| Indoor Air Inlet Temperature: 27°C DB(80°F DB)  | Indoor Air Inlet Temperature: 20°C DB(68°F DB) |
| *1): 19.5°C WB (67°F WB)                        | Outdoor Air Inlet Temperature: 7°C DB(45°F DB) |
| *2): 19.0°C WB (66.2°F WB)                      | 6°C WB(43°F WB)                                |
| Outdoor Air Inlet Temperature: 35°C DB(95°F DB) |  |
| Piping Length: 7.5 Meters                       | Piping Lift: 0 Meter                           |
- The sound pressure level is based on following conditions.
  - 1 Meters Beneath the Unit and 1 Meters from Inlet Grille.
  - Voltage of the power source for the indoor fan motor is 220V.
  - In case of the power source of 240V, the sound pressure level increases by about 1~2dB.
  - The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.



# High Wall



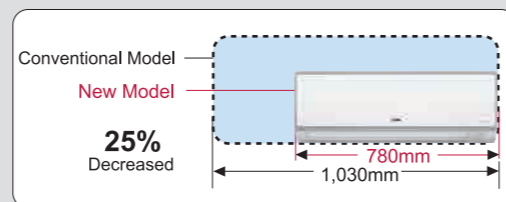
## York VRF -JTHW Technique Features

### Easy Installation

The installation of remote control switches has been improved. A terminal board for the use of wired remote control switches has been added, along with a change over switch allowing easy selection between wired and wireless remote control switches.

### Industry-leading Compactness

With a width of 780 mm, it can be installed in a small room between pillars. Compared with conventional model the width is about 25% less, for greater flexibility of installation in about 900mm.



### Light Weight Design

Units weight has been vastly reduced.

| Model | HP      | Weight(kg) |
|-------|---------|------------|
|       | 0.8~1.5 | 10         |
|       | 1.8~2.5 | 13.5       |

### Wireless Remote Controller as Standard Part

Units are equipped with wireless remote switch (standard) and remote control switch can be supplied as optional part which can meet various central control needs in many cases.



### Easy Troubleshooting

An alarm code function has been added to the front panel LEDs enabling the alarm code to be checked when using the wireless remote control switch.

| Indoor Unit                                | High Wall           |  |                    |                    |                    |                    |                    |                    |  |
|--|---------------------|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--|
|  | Model               | JTHW022<br>HONB0AQ                               | JTHW028<br>HONB0AQ | JTHW036<br>HONB0AQ | JTHW040<br>HONB0AQ | JTHW050<br>HONB0AQ | JTHW056<br>HONB0AQ | JTHW063<br>HONB0AQ |  |
| Power Supply                               | AC1Φ,220V/60Hz      |  |                    |                    |                    |                    |                    |                    |  |
| Nominal Cooling Capacity <sup>*1)</sup>    | kW                  | 2.3  | 2.9                | 3.8                | 4.1                | 5.2                | 5.8                | 6.5                |  |
|  | kcal/h              | 2,000  | 2,500              | 3,300              | 3,550              | 4,500              | 5,000              | 5,600              |  |
|  | Btu/h               | 7,800  | 9,900              | 13,000             | 14,100             | 17,700             | 19,800             | 22,200             |  |
| Nominal Cooling Capacity <sup>*2)</sup>    | kW                  | 2.2  | 2.8                | 3.6                | 4.0                | 5.0                | 5.6                | 6.3                |  |
|  | kcal/h              | 1,900  | 2,400              | 3,100              | 3,450              | 4,300              | 4,800              | 5,400              |  |
|  | Btu/h               | 7,500  | 9,600              | 12,300             | 13,600             | 17,000             | 19,100             | 21,500             |  |
| Nominal Heating Capacity                   | kW                  | 2.5  | 3.3                | 4.0                | 4.5                | 5.6                | 6.3                | 7.1                |  |
|  | kcal/h              | 2,150  | 2,800              | 3,450              | 3,900              | 4,800              | 5,400              | 6,100              |  |
|  | Btu/h               | 8,500  | 11,100             | 13,600             | 15,300             | 19,100             | 21,500             | 24,200             |  |
| Sound Pressure Level (High/Medium/Low)     | dB(A)               | 38/36/32   | 38/36/32           | 40/36/34           | 41/38/35           | 41/38/35           | 41/38/35           | 44/41/38           |  |
| Outer Dimensions(H)                        | mm                  | 280  | 280                | 280                | 280                | 290                | 290                | 290                |  |
|  | (in.)               | 11   | 11                 | 11                 | 11                 | 12                 | 12                 | 12                 |  |
| Outer Dimensions(W)                        | mm                  | 780  | 780                | 780                | 780                | 1,050              | 1,050              | 1,050              |  |
|  | (in.)               | 31   | 31                 | 31                 | 31                 | 41                 | 41                 | 41                 |  |
| Outer Dimensions(D)                        | mm                  | 220  | 220                | 220                | 220                | 220                | 220                | 220                |  |
|  | (in.)               | 9  | 9                  | 9                  | 9                  | 9                  | 9                  | 9                  |  |
| Net Weight                                 | kg                  | 10   | 10                 | 10                 | 10                 | 13.5               | 13.5               | 13.5               |  |
|  | (lbs)               | 22   | 22                 | 22                 | 22                 | 30                 | 30                 | 30                 |  |
| Refrigerant                                |                     | R410A(Nitrogen-charged for Corrosion-resistance) |                    |                    |                    |                    |                    |                    |  |
| Indoor Fan Air Flow Rate (Cooling/Heating) | m <sup>3</sup> /min | 510/450/390                                      | 510/450/390        | 550/450/400        | 600/510/450        | 720/620/520        | 720/620/520        | 820/720/620        |  |
| Motor Power                                | W                   | 30   | 30                 | 30                 | 40                 | 50                 | 50                 | 60                 |  |
| Connections Refrigerant Piping             |                     | Flare-nut Connection(with Flare Nuts)            |                    |                    |                    |                    |                    |                    |  |
| Liquid Line                                | mm                  | Φ6.35  | Φ6.35              | Φ6.35              | Φ6.35              | Φ6.35              | Φ6.35              | Φ6.35              |  |
|  | (in.)               | (1/4)  | (1/4)              | (1/4)              | (1/4)              | (1/4)              | (1/4)              | (1/4)              |  |
| Gas Line                                   | mm                  | Φ12.7  | Φ12.7              | Φ12.7              | Φ12.7              | Φ15.88             | Φ15.88             | Φ15.88             |  |
|  | (in.)               | (1/2)  | (1/2)              | (1/2)              | (1/2)              | (5/8)              | (5/8)              | (5/8)              |  |
| Condensate Drain                           |                     | VP16   | VP16               | VP16               | VP16               | VP16               | VP16               | VP16               |  |
| Approximate Packing Measurement            | m <sup>3</sup>      | 0.12   | 0.12               | 0.12               | 0.12               | 0.15               | 0.15               | 0.15               |  |

**NOTES:**

1.The nominal cooling capacity and heating capacity are based on following conditions:  
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)  
 Piping Length: 7.5 Meters Piping Lift: 0 Meter

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)

2.The sound pressure level is based on following conditions.  
 1 Meters Beneath the Unit and 1 Meters from Inlet Grille.  
 Voltage of the power source for the indoor fan motor is 220V.  
 In case of the power source of 240V, the sound pressure level increases by about 1~2dB.  
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.



# Floor Floor Concealed



## York VRF -JTFC(C) Technique Features

### 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.

### Floor Type

Slim design for perimeter zone air conditioning

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

| Indoor Unit                                  |                      | Floor   |                   | Floor Concealed |                  |                  |                  |
|--|----------------------|---|-------------------|-----------------|------------------|------------------|------------------|
| Model  |                      | JTFC028H0NB0AE                                    | JTFC040H0NB0AE    | JTFC028H0NB0AQ  | JTFC043H0NB0AQ   | JTFC056H0NB0AQ   | JTFC071H0NB0AQ   |
| Power Supply                                 |                      | AC1Φ,220V/60Hz                                    |                   |                 |                  |                  |                  |
| Nominal Cooling Capacity*1)                  | kW                   | 2.9   | 4.1               | 2.9             | 4.4              | 5.8              | 7.3              |
|  | kcal/h               | 2,500   | 3,550             | 2,500           | 3,500            | 5,000            | 6,300            |
|  | Btu/h                | 9,900   | 14,100            | 9,900           | 14,000           | 19,800           | 24,900           |
| Nominal Cooling Capacity*2)                  | kW                   | 2.8   | 4.0               | 2.8             | 4.3              | 5.6              | 7.1              |
|  | kcal/h               | 2,400   | 3,400             | 2,400           | 3,700            | 4,800            | 6,100            |
|  | Btu/h                | 9,600   | 13,600            | 9,600           | 14,700           | 19,100           | 24,200           |
| Nominal Heating Capacity                     | kW                   | 3.2   | 4.8               | 3.3             | 4.9              | 6.5              | 8.5              |
|  | kcal/h               | 2,800   | 4,100             | 2,800           | 4,200            | 5,600            | 7,300            |
|  | Btu/h                | 10,900  | 16,400            | 11,300          | 16,700           | 22,200           | 29,000           |
| Sound Pressure Level (High2/High/Medium/Low) | dB                   | 35/32/29  | 38/35/31          | 37/34/31        | 40/38/35         | 42/38/36         | 45/43/40         |
| 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 900 x 202 |                  | 620 x 1170 x 202 |                  |
| Refrigerant                                  |                      | R410A (Nitrogen-Charged for Corrosion-Resistance) |                   |                 |                  |                  |                  |
| Air Flow Rate Hi2/Hi/Me/Lo                   | m <sup>3</sup> /min. | 8.5/7/6   | 12/10/9           | 8/7/6           | 10/8/7           | 14.5/12.5/10.5   | 16/14/12         |
|  | (cfm)                | 300/247/212                                       | 424/353/318       | 282/247/212     | 353/282/247      | 512/441/370      | 565/494/424      |
| Motor  | W                    | 20  | 28                |                 |                  |                  |                  |
| Connections                                  |                      | Flare-Nut Connection (With Flare Nuts)            |                   |                 |                  |                  |                  |
| Liquid / Gas                                 | mm                   | Φ 6.35 / Φ 12.7                                   |                   |                 | Φ 6.35 / Φ 15.88 |                  | Φ 9.53 / Φ 15.88 |
| Condensate Drain                             |                      | 18.5 OD   |                   | VP25            |                  |                  |                  |
| Approximate Packing Measurement              | m <sup>3</sup>       | 0.26  | 0.29              | 0.19            | 0.19             | 0.23             | 0.23             |

NOTES: 1.The nominal cooling capacity and heating capacity are based on following conditions:  
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)  
 Piping Length: 7.5 Meters Piping Lift: 0 Meter  
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)

2.The sound pressure level is based on following conditions.  
 Floor type: 1.5 meters from floor level.  
 Floor concealed type: 1.5 meters from the unit and 1.5 meters from the floor level.  
 Voltage of the power source for the indoor fan motor is 220V.  
 In case of the power source of 240V, the sound pressure level increases by about 1~2dB.  
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

# Outdoor Units Parameter

| Model                           | JVOH080VVER0AQ                         | JVOH100VVER0AQ | JVOH120VVER0AQ | JVOH140VVER0AQ |     |
|---------------------------------|--|----------------|----------------|----------------|-----|
| Combination                     | -                                      | -              | -              | -              |     |
| Power Supply                    | AC3Φ,220V/60Hz                         |                |                |                |     |
| Nominal Cooling Capacity        | kW 22.4                                | 28.0           | 33.5           | 40.0           |     |
| Nominal Heating Capacity        | kW 25.0                                | 31.5           | 37.5           | 45.0           |     |
| Sound Pressure Level            | dB 58                                  | 58             | 60             | 62             |     |
| Cabinet Color                   | Ivory White                            |                |                |                |     |
| Outer Dimensions(H×W×D)         | mm                                     | 1720×950×765   |                | 1720×1210×765  |     |
| Net Weight                      | kg                                     | 223            | 225            | 243            | 295 |
| Refrigerant Category            | R410A                                  |                |                |                |     |
| Refrigerant Flow Control        | Micro-computer Control Expansion Valve |                |                |                |     |
| Compressor Model                | E656DHD                                | E656DHD        | E656DHD        | E656DHD+E655DH |     |
| Compressor Quantity             | 1                                      | 1              | 1              | 1+1            |     |
| Compressor Output(Pole)         | kW 4.8(4)                              | 6.0(4)         | 7.2(4)         | 4.8(4)+4.4(2)  |     |
| Heat Exchanger                  | Multi-pass Cross-finned Tube           |                |                |                |     |
| Condenser Fan Quantity          | 1                                      | 1              | 1              | 1              |     |
| Air Flow Rate                   | m <sup>3</sup> /min 155                | 170            | 175            | 195            |     |
| Motor Output(Pole)              | kW 0.33(8)                             | 0.44(8)        | 0.49(8)        | 0.66(8)        |     |
| Refrigerant Piping              | Flare-nut Connection(With Flare Nuts)  |                |                |                |     |
| Liquid Line                     | mm Φ9.53                               | Φ9.53          | Φ12.7          | Φ12.7          |     |
| Gas Line                        | mm Φ19.05                              | Φ22.2          | Φ25.4          | Φ25.4          |     |
| Refrigerant Charge              | kg 6.5                                 | 6.5            | 8.0            | 9.0            |     |
| Holes For Power Supply Wiring   | mm Φ52                                 | Φ52            | Φ52            | Φ52            |     |
| Holes For Control Line Wiring   | mm Φ26                                 | Φ26            | Φ26            | Φ26            |     |
| Approximate Packing Measurement | m <sup>3</sup> 1.57                    | 1.57           | 1.57           | 1.97           |     |

| Model                           | JVOH240VVER0AQ                         | JVOH260VVER0AQ                           | JVOH280VVER0AQ                   | JVOH300VVER0AQ                            |     |
|---------------------------------|--|--|----------------------------------|---|-----|
| Combination                     | JVOH100VVER0AQ<br>JVOH140VVER0AQ       | JVOH120VVER0AQ<br>JVOH140VVER0AQ         | JVOH140VVER0AQ<br>JVOH140VVER0AQ | JVOH140VVER0AQ<br>JVOH160VVER0AQ          |     |
| Power Supply                    | AC3Φ,220V/60Hz                         |  |                                  |   |     |
| Nominal Cooling Capacity        | kW 69.0                                | 73.0                                     | 80.0                             | 85.0                                      |     |
| Nominal Heating Capacity        | kW 77.5                                | 82.5                                     | 90.0                             | 95.0                                      |     |
| Sound Pressure Level            | dB 63                                  | 64                                       | 65                               | 65  |     |
| Cabinet Color                   | Ivory White                            |  |                                  |   |     |
| Outer Dimensions(H×W×D)         | mm                                     | ( 1720 × 950 × 765 ) + ( 1720×1210×765 ) |                                  | ( 1720 × 1210 × 765 ) + ( 1720×1210×765 ) |     |
| Net Weight                      | kg                                     | 520                                      | 538                              | 590                                       | 605 |
| Refrigerant Category            | R410A                                  |  |                                  |   |     |
| Refrigerant Flow Control        | Micro-computer Control Expansion Valve |  |                                  |   |     |
| Compressor Model                | E656DHD+E656DHD+E655DH                 | E656DHD+E656DHD+E655DH                   | E656DHD+E655DH+E656DHD+E655DH    | E656DHD+E655DH+E656DHD+E655DH             |     |
| Compressor Quantity             | 1+1+1                                  | 1+1+1                                    | 1+1+1+1                          | 1+1+1+1                                   |     |
| Compressor Output(Pole)         | kW 6.0(4)+4.8(4)+4.4(2)                | 7.2(4)+4.8(4)+4.4(2)                     | 4.8(4)+4.4(2)+4.8(4)+4.4(2)      | 4.8(4)+4.4(2)+6.0(4)+4.4(2)               |     |
| Heat Exchanger                  | Multi-pass Cross-finned Tube           |  |                                  |   |     |
| Condenser Fan Quantity          | 2                                      | 2  | 2                                | 2   |     |
| Air Flow Rate                   | m <sup>3</sup> /min 365                | 370                                      | 390                              | 390                                       |     |
| Motor Output(Pole)              | kW 0.44(8)+0.66(8)                     | 0.49(8)+0.66(8)                          | 0.66(8)+0.66(8)                  | 0.66(8)+0.66(8)                           |     |
| Refrigerant Piping              | Flare-nut Connection(With Flare Nuts)  |  |                                  |   |     |
| Liquid Line                     | mm Φ15.88                              | Φ19.05                                   | Φ19.05                           | Φ19.05                                    |     |
| Gas Line                        | mm Φ28.6                               | Φ31.75                                   | Φ31.75                           | Φ31.75                                    |     |
| Refrigerant Charge              | kg 15.5                                | 17.0                                     | 18.0                             | 19.5                                      |     |
| Holes For Power Supply Wiring   | mm Φ52                                 | Φ52                                      | Φ52                              | Φ52                                       |     |
| Holes For Control Line Wiring   | mm Φ26                                 | Φ26                                      | Φ26                              | Φ26                                       |     |
| Approximate Packing Measurement | m <sup>3</sup> -                       | -  | -                                | -   |     |

| Model                           | JVOH160VVER0AQ                         | JVOH180VVER0AQ | JVOH200VVER0AQ                   | JVOH220VVER0AQ                       |     |
|---------------------------------|--|----------------|----------------------------------|--------------------------------------|-----|
| Combination                     | -                                      | -              | JVOH080VVER0AQ<br>JVOH120VVER0AQ | JVOH080VVER0AQ<br>JVOH140VVER0AQ     |     |
| Power Supply                    | AC3Φ,220V/60Hz                         |                |                                  |                                      |     |
| Nominal Cooling Capacity        | kW 45.0                                | 50.0           | 56.0                             | 61.5                                 |     |
| Nominal Heating Capacity        | kW 50.0                                | 56.0           | 63.0                             | 69.0                                 |     |
| Sound Pressure Level            | dB 62                                  | 63             | 62                               | 63                                   |     |
| Cabinet Color                   | Ivory White                            |                |                                  |                                      |     |
| Outer Dimensions(H×W×D)         | mm                                     | 1720×1210×765  |                                  | ( 1720×950×765 ) + ( 1720×1210×765 ) |     |
| Net Weight                      | kg                                     | 310            | 315                              | 466                                  | 518 |
| Refrigerant Category            | R410A                                  |                |                                  |                                      |     |
| Refrigerant Flow Control        | Micro-computer Control Expansion Valve |                |                                  |                                      |     |
| Compressor Model                | E656DHD+E655DH                         | E656DHD+E855DH | E656DHD+E656DHD                  | E656DHD+E656DHD+E655DH               |     |
| Compressor Quantity             | 1+1                                    | 1+1            | 1+1                              | 1+1+1                                |     |
| Compressor Output(Pole)         | kW 6.0(4)+4.4(2)                       | 6.0(4)+5.6(2)  | 4.8(4)+7.2(4)                    | 4.8(4)+4.8(4)+4.4(2)                 |     |
| Heat Exchanger                  | Multi-pass Cross-finned Tube           |                |                                  |                                      |     |
| Condenser Fan Quantity          | 1                                      | 1              | 2                                | 2                                    |     |
| Air Flow Rate                   | m <sup>3</sup> /min 195                | 195            | 330                              | 350                                  |     |
| Motor Output(Pole)              | kW 0.66(8)                             | 0.66(8)        | 0.33(8)+0.49(8)                  | 0.33(8)+0.66(8)                      |     |
| Refrigerant Piping              | Flare-nut Connection(With Flare Nuts)  |                |                                  |                                      |     |
| Liquid Line                     | mm Φ12.7                               | Φ15.88         | Φ15.88                           | Φ15.88                               |     |
| Gas Line                        | mm Φ28.6                               | Φ28.6          | Φ28.6                            | Φ28.6                                |     |
| Refrigerant Charge              | kg 10.5                                | 10.5           | 14.5                             | 15.5                                 |     |
| Holes For Power Supply Wiring   | mm Φ52                                 | Φ52            | Φ52                              | Φ52                                  |     |
| Holes For Control Line Wiring   | mm Φ26                                 | Φ26            | Φ26                              | Φ26                                  |     |
| Approximate Packing Measurement | m <sup>3</sup> 1.97                    | 1.97           | -                                | -                                    |     |

| Model                           | JVOH320VVER0AQ                         | JVOH340VVER0AQ                            | JVOH360VVER0AQ                   | JVOH380VVER0AQ  |     |
|---------------------------------|--|---|----------------------------------|---|-----|
| Combination                     | JVOH160VVER0AQ<br>JVOH160VVER0AQ       | JVOH160VVER0AQ<br>JVOH180VVER0AQ          | JVOH180VVER0AQ<br>JVOH180VVER0AQ | JVOH120VVER0AQ<br>JVOH120VVER0AQ<br>JVOH140VVER0AQ              |     |
| Power Supply                    | AC3Φ,220V/60Hz                         |   |                                  |   |     |
| Nominal Cooling Capacity        | kW 90.0                                | 95.0                                      | 100.0                            | 109.0   |     |
| Nominal Heating Capacity        | kW 100.0                               | 106.0                                     | 112.0                            | 118.0   |     |
| Sound Pressure Level            | dB 65                                  | 66  | 66                               | 66  |     |
| Cabinet Color                   | Ivory White                            |   |                                  |   |     |
| Outer Dimensions(H×W×D)         | mm                                     | ( 1720 × 1210 × 765 ) + ( 1720×1210×765 ) |                                  | ( 1720 × 950 × 765 ) + ( 1720 × 950 × 765 ) + ( 1720×1210×765 ) |     |
| Net Weight                      | kg                                     | 620                                       | 625                              | 630   | 781 |
| Refrigerant Category            | R410A                                  |   |                                  |   |     |
| Refrigerant Flow Control        | Micro-computer Control Expansion Valve |   |                                  |   |     |
| Compressor Model                | E656DHD+E655DH+E656DHD+E655DH          | E656DHD+E655DH+E656DHD+E855DH             | E656DHD+E855DH+E656DHD+E855DH    | E656DHD+E656DHD+E656DHD+E655DH                                  |     |
| Compressor Quantity             | 1+1+1+1                                | 1+1+1+1                                   | 1+1+1+1                          | 1+1+1+1   |     |
| Compressor Output(Pole)         | kW 6.0(4)+4.4(2)+6.0(4)+4.4(2)         | 6.0(4)+4.4(2)+6.0(4)+5.6(2)               | 6.0(4)+5.6(2)+6.0(4)+5.6(2)      | 7.2(4)+7.2(4)+4.8(4)+4.4(2)                                     |     |
| Heat Exchanger                  | Multi-pass Cross-finned Tube           |   |                                  |   |     |
| Condenser Fan Quantity          | 2                                      | 2   | 2                                | 3   |     |
| Air Flow Rate                   | m <sup>3</sup> /min 390                | 390                                       | 390                              | 545   |     |
| Motor Output(Pole)              | kW 0.66(8)+0.66(8)                     | 0.66(8)+0.66(8)                           | 0.66(8)+0.66(8)                  | 0.49(8)+0.49(8)+0.66(8)   |     |
| Refrigerant Piping              | Flare-nut Connection(With Flare Nuts)  |   |                                  |   |     |
| Liquid Line                     | mm Φ19.05                              | Φ19.05                                    | Φ19.05                           | Φ19.05  |     |
| Gas Line                        | mm Φ31.75                              | Φ31.75                                    | Φ38.1                            | Φ38.1   |     |
| Refrigerant Charge              | kg 21.0                                | 21.0                                      | 21.0                             | 25.0  |     |
| Holes For Power Supply Wiring   | mm Φ52                                 | Φ52                                       | Φ52                              | Φ52   |     |
| Holes For Control Line Wiring   | mm Φ26                                 | Φ26                                       | Φ26                              | Φ26   |     |
| Approximate Packing Measurement | m <sup>3</sup> -                       | -   | -                                | -   |     |

# Outdoor Units Parameter

| Model                           | JVOH400VVER0AQ  | JVOH420VVER0AQ                                     | JVOH440VVER0AQ                                     | JVOH460VVER0AQ                                     |
|---------------------------------|---|--|--|--|
| Combination                     | JVOH120VVER0AQ<br>JVOH120VVER0AQ<br>JVOH160VVER0AQ  | JVOH120VVER0AQ<br>JVOH120VVER0AQ<br>JVOH180VVER0AQ | JVOH120VVER0AQ<br>JVOH140VVER0AQ<br>JVOH180VVER0AQ | JVOH120VVER0AQ<br>JVOH160VVER0AQ<br>JVOH180VVER0AQ |
| Power Supply                    | AC3Φ, 220V/60Hz   |  |  |  |
| Nominal Cooling Capacity        | kW 112.0  | 118.0  | 125.0  | 132.0  |
| Nominal Heating Capacity        | kW 125.0  | 132.0  | 140.0  | 145.0  |
| Sound Pressure Level            | dB 66   | 66   | 67   | 67   |
| Cabinet Color                   | Ivory White   |  |  |  |
| Outer Dimensions(H×W×D)         | mm (1720 × 950 × 765) + (1720 × 950 × 765) + (1720 × 1210 × 765) (1720 × 950 × 765) + (1720 × 1210 × 765) + (1720 × 1210 × 765) |  |  |  |
| Net Weight                      | kg 796  | 801  | 853  | 868  |
| Refrigerant Category            | R410A   |  |  |  |
| Refrigerant Flow Control        | Micro-computer Control Expansion Valve  |  |  |  |
| Compressor Model                | E656DHD+E656DHD+E656DHD+E655DH  | E656DHD+E656DHD+E656DHD+E855DH                     | E656DHD+E656DHD+E655DH+E656DHD+E855DH              | E656DHD+E656DHD+E655DH+E656DHD+E855DH              |
| Compressor Quantity             | 1+1+1+1   | 1+1+1+1  | 1+1+1+1+1  | 1+1+1+1+1  |
| Compressor Output(Pole)         | kW 7.2(4)+7.2(4)+6.0(4)+4.4(2)  | 7.2(4)+7.2(4)+6.0(4)+5.6(2)                        | 7.2(4)+4.8(4)+4.4(2)+6.0(4)+5.6(2)                 | 7.2(4)+6.0(4)+4.4(2)+6.0(4)+5.6(2)                 |
| Heat Exchanger                  | Multi-pass Cross-finned Tube  |  |  |  |
| Condenser Fan Quantity          | 3   | 3  | 3  | 3  |
| Air Flow Rate                   | m <sup>3</sup> /min 545   | 545  | 565  | 565  |
| Motor Output(Pole)              | kW 0.49(8)+0.49(8)+0.66(8)  | 0.49(8)+0.49(8)+0.66(8)                            | 0.49(8)+0.66(8)+0.66(8)                            | 0.49(8)+0.66(8)+0.66(8)                            |
| Refrigerant Piping              | Flare-nut Connection(With Flare Nuts)   |  |  |  |
| Liquid Line                     | mm Φ19.05   | Φ19.05   | Φ19.05   | Φ19.05   |
| Gas Line                        | mm Φ38.1  | Φ38.1  | Φ38.1  | Φ38.1  |
| Refrigerant Charge              | kg 26.5   | 26.5   | 27.5   | 29.0   |
| Holes For Power Supply Wiring   | mm Φ52  | Φ52  | Φ52  | Φ52  |
| Holes For Control Line Wiring   | mm Φ26  | Φ26  | Φ26  | Φ26  |
| Approximate Packing Measurement | m <sup>3</sup> -  | -  | -  | -  |

| Model                           | JVOH480VVER0AQ  | JVOH500VVER0AQ                                     | JVOH520VVER0AQ                                     | JVOH540VVER0AQ                                     |
|---------------------------------|---|--|--|--|
| Combination                     | JVOH120VVER0AQ<br>JVOH180VVER0AQ<br>JVOH180VVER0AQ  | JVOH140VVER0AQ<br>JVOH180VVER0AQ<br>JVOH180VVER0AQ | JVOH160VVER0AQ<br>JVOH180VVER0AQ<br>JVOH180VVER0AQ | JVOH180VVER0AQ<br>JVOH180VVER0AQ<br>JVOH180VVER0AQ |
| Power Supply                    | AC3Φ, 220V/60Hz   |  |  |  |
| Nominal Cooling Capacity        | kW 136.0  | 140.0  | 145.0  | 150.0  |
| Nominal Heating Capacity        | kW 150.0  | 155.0  | 160.0  | 165.0  |
| Sound Pressure Level            | dB 67   | 67   | 67   | 68   |
| Cabinet Color                   | Ivory White   |  |  |  |
| Outer Dimensions(H×W×D)         | mm (1720 × 950 × 765) + (1720 × 1210 × 765) + (1720 × 1210 × 765) (1720 × 1210 × 765) + (1720 × 1210 × 765) + (1720 × 1210 × 765) |  |  |  |
| Net Weight                      | kg 873  | 925  | 940  | 945  |
| Refrigerant Category            | R410A   |  |  |  |
| Refrigerant Flow Control        | Micro-computer Control Expansion Valve  |  |  |  |
| Compressor Model                | E656DHD+E656DHD+E855DH+E656DHD+E855DH   | E656DHD+E655DH+E656DHD+E855DH+E855DH               | E656DHD+E655DH+E656DHD+E855DH+E656DHD+E855DH       | E656DHD+E855DH+E656DHD+E855DH+E656DHD+E855DH       |
| Compressor Quantity             | 1+1+1+1+1   | 1+1+1+1+1+1  | 1+1+1+1+1+1  | 1+1+1+1+1+1  |
| Compressor Output(Pole)         | kW 7.2(4)+6.0(4)+5.6(2)+6.0(4)+5.6(2)   | 4.8(4)+4.4(2)+6.0(4)+5.6(2)+6.0(4)+5.6(2)          | 6.0(4)+4.4(2)+6.0(4)+5.6(2)+6.0(4)+5.6(2)          | 6.0(4)+5.6(2)+6.0(4)+5.6(2)+6.0(4)+5.6(2)          |
| Heat Exchanger                  | Multi-pass Cross-finned Tube  |  |  |  |
| Condenser Fan Quantity          | 3   | 3  | 3  | 3  |
| Air Flow Rate                   | m <sup>3</sup> /min 565   | 585  | 585  | 585  |
| Motor Output(Pole)              | kW 0.49(8)+0.66(8)+0.66(8)  | 0.66(8)+0.66(8)+0.66(8)                            | 0.66(8)+0.66(8)+0.66(8)                            | 0.66(8)+0.66(8)+0.66(8)                            |
| Refrigerant Piping              | Flare-nut Connection(With Flare Nuts)   |  |  |  |
| Liquid Line                     | mm Φ19.05   | Φ19.05   | Φ19.05   | Φ19.05   |
| Gas Line                        | mm Φ38.1  | Φ38.1  | Φ38.1  | Φ38.1  |
| Refrigerant Charge              | kg 29.0   | 30.0   | 31.5   | 31.5   |
| Holes For Power Supply Wiring   | mm Φ52  | Φ52  | Φ52  | Φ52  |
| Holes For Control Line Wiring   | mm Φ26  | Φ26  | Φ26  | Φ26  |
| Approximate Packing Measurement | m <sup>3</sup> -  | -  | -  | -  |

NOTES: 1.The nominal cooling capacity and heating capacity are based on following conditions:  
Cooling Operation Conditions  
Indoor Air Inlet Temperature: 27°C DB(80°F DB)  
Outdoor Air Inlet Temperature: 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)  
Piping Length: 7.5 Meters Piping Lift: 0 Meter

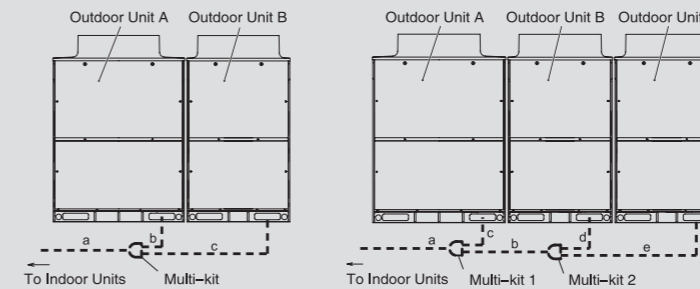
2.The sound pressure level is based on following conditions:  
1.5 Meters from floor Level, and 1 Meters from the unit service cover surface.  
The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

## First Multi-kit

| Outdoor Unit HP | 8 and 10 | 12 to 16 | 18 to 24 | 26 to 54 |
|-----------------|----------|----------|----------|----------|
| Multi-kit       | JE-102SN | JE-162SN | JE-242SN | JE-302SN |

## Piping Connection Kit (for combined system)

| Outdoor Unit | JVOH200~240VVER0AQ | JVOH260~360VVER0AQ | JVOH380~420VVER0AQ | JVOH440~540VVER0AQ |
|--------------|--------------------|--------------------|--------------------|--------------------|
| Multi-kit 1  |                    |                    | JM-30SNQ           | JM-30SNQ           |
| Multi-kit 2  | JM-20SNQ           | JM-30SNQ           | JM-20SNQ           | JM-30SNQ           |



## First Multi-kit ~ Last Multi-kit

| Total Indoor Unit HP | Lower than 6 | 6 to 8.99 | 9 to 11.99 | 12 to 15.99 | 16 to 17.99 | 18 to 25.99 | 26 to 35.99 | Over 36 |
|----------------------|--------------|-----------|------------|-------------|-------------|-------------|-------------|---------|
| Gas (Φmm)            | Φ15.88       | Φ19.05    | Φ22.2      | Φ25.4       | Φ28.6       | Φ28.6       | Φ31.75      | Φ38.1   |
| Liquid(Φmm)          | Φ9.53        | Φ9.53     | Φ9.53      | Φ12.7       | Φ12.7       | Φ15.88      | Φ19.05      | Φ19.05  |
| Multi-kit            | JE-102SN     |           | JE-162SN   |             | JE-242SN    | JE-302SN    |             |         |

## Last Multi-kit ~ Indoor Unit

| Indoor Unit | Pipe Size ( Φ mm ) |             | Max. Liquid Pipe Length |
|-------------|--------------------|-------------|-------------------------|
|             | Gas Pipe           | Liquid Pipe |                         |
| 0.8HP~1.5HP | 12.7               | 6.35        | 15                      |
| 1.8HP~2.0HP | 15.88              | 6.35*1      | 15                      |
| 2.3HP~6.0HP | 15.88              | 9.53        | 40                      |
| 8HP         | 19.05              | 9.53        | 40                      |
| 10HP        | 22.2               | 9.53        | 40                      |

NOTES: 1. When liquid pipe length of indoor unit(0.8~2.0HP) is more than 15m, please change the liquid pipe dimension from Φ6.35 into Φ9.53.