



® variable refrigerant volume
INTELLIGENT AIR-CONDITIONING TECHNOLOGY







At Daikin,[®] we have turned the science and application of air conditioning into an art form by revolutionizing and redefining the very way we think about it. By bringing it to life. Making it a part of everyday living. Creating a responsive environment that can constantly readjust itself to your changing needs.

**WE ARE DAIKIN AC –
ABSOLUTE COMFORT.[®]**





table of contents

introduction 1-5

what is VRV® 6-12

advantages 13-16

products 17-37

ABSOLUTE COMFORT

A leap far beyond the notion of air conditioning to the concept of comfort-conditioned air.

An advanced solution that delivers:

- The total peace of mind and confidence that come from having unique, customizable solutions that can be seamlessly crafted into any design – quickly, simply and cost-effectively.



- The security of being covered by one of the finest warranties in the business for a system that has the flexibility to grow as needs grow.
- The control that comes from advanced, revolutionary technology that can constantly readjust itself to its user's ever-changing needs at the touch of a button – creating a unique, personalized environment all its own.

That's Absolute Comfort.



THE DAIKIN EDGE

Daikin is the only company in the world dedicated to manufacturing both air-conditioning systems *and* refrigerants. And because we develop and optimize *every* major component within our unique system, you can enjoy the Absolute Comfort of knowing that each element has been designed to work flawlessly with the next – delivering optimal performance – from the time a project begins to the moment of experiencing Absolute Comfort.



ADVANCED ZONING CAPABILITIES provide complete control and Absolute Comfort over every square inch of your environment regardless of building size, configuration or function. Our system's modular design allows you to condition each individual zone as it is occupied.

ENERGY EFFICIENCY and lower operating costs result from being able to control each zone or room individually, allowing you to adjust the level of air conditioning based on its use.

INNOVATIVE SPACE-SAVING DESIGN has been incorporated into every aspect of the system, so you can utilize each area to its fullest.

RELIABILITY is assured throughout, with high-specification, worry-free design and function. And our proprietary Double Backup Technology ensures constant operation.

Enjoy the comfort of having one of the
BEST WARRANTIES
in the business.
Absolutely.



the Daikin difference

ABSOLUTE COMFORT – GLOBALLY APPROVED

For more than 80 years, Daikin has been manufacturing and supplying advanced, high-quality air-conditioning equipment for residential, commercial and industrial applications. With a global presence that stretches from Asia to Europe to South America, you can be assured that our products have been designed to perform flawlessly in any climate.



Our commitment to the U.S. market began in 1963 with the manufacturing of fluorine chemicals. Today our commitment is stronger than ever, and our presence is growing with the establishment of regional air-conditioning operations in North America.

As a world leader in technological innovation, we constantly strive to expand the boundaries of our knowledge by initiating and funding a wide range of research programs: from mechanics and electronics to chemicals and fluorocarbons. It's with this knowledge that we build Absolute Comfort into every single product we develop.



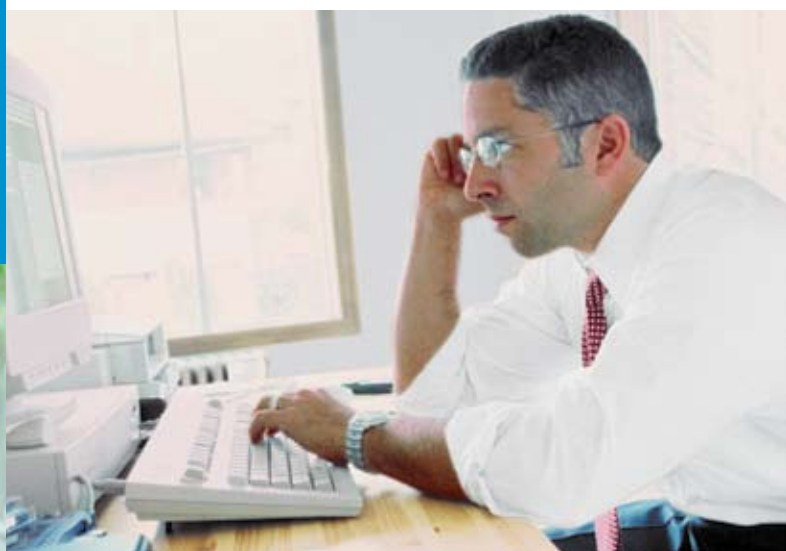


ABSOLUTE COMFORT

The idea of Absolute Comfort not only applies to our indoor environment, but also to the world outside. As a global producer of refrigerant, we are aware of our responsibilities to develop safer alternatives. In fact, in June 2002, we were cited by the Environmental Protection Agency (EPA), *"In recognition of exceptional contributions to global environment protection."*

ABSOLUTE COMFORT – GUARANTEED WITH AN UNSURPASSED LEVEL OF SERVICE

Our commitment to producing the world's best air-conditioning systems is matched only by our desire to afford our customers and service providers a level of sales, marketing, engineering and service support unsurpassed in the business.



We are implementing one of the industry's most advanced training, education and self-development programs for our personnel, and for those of our service providers. This not only ensures that every Daikin product is supported by the most professional, highly skilled people in the industry, but will also give you the confidence that comes from knowing that when you choose Daikin, you'll receive Absolute Comfort from a level of service second to none.



variable
refrigerant
volume

**ONLY ONE SYSTEM HAS BEEN DESIGNED TO DELIVER
ABSOLUTE COMFORT.**

When Daikin developed the world's first variable refrigerant volume (VRV®) system, our goal was to build a solution unlike any other. One that not only elevates the level of high performance, but is equipped with advanced built-in intelligence and flexibility that could truly enhance the way you live. A revolutionary solution that could be constantly refined to respond instantly to your needs, delivering an unparalleled level of control and Absolute Comfort.

So it's easy to appreciate the genius of VRV when you consider today's intelligent buildings, such as hotels, banks, offices and hospitals. Many are designed with large areas of glass that instantly react to conditions outside. This can cause extreme fluctuations of temperature internally that can only be controlled with an advanced air-conditioning system. In addition, electronic office equipment, lighting systems and occupancy rates can raise thermal loads even further, increasing the demands on the system and raising the expectations of those who use it.

To meet those demands – and exceed those expectations – the ideal system must offer **advanced zoning capabilities**, and provide **enhanced energy efficiency, space-saving design and reliability**. It must also be easy to install, highly flexible and user friendly – as well as have the capacity to streamline central management and control facilities in medium and large buildings.

**That System Is Daikin's Advanced VRV.
Delivering Absolute Comfort.**





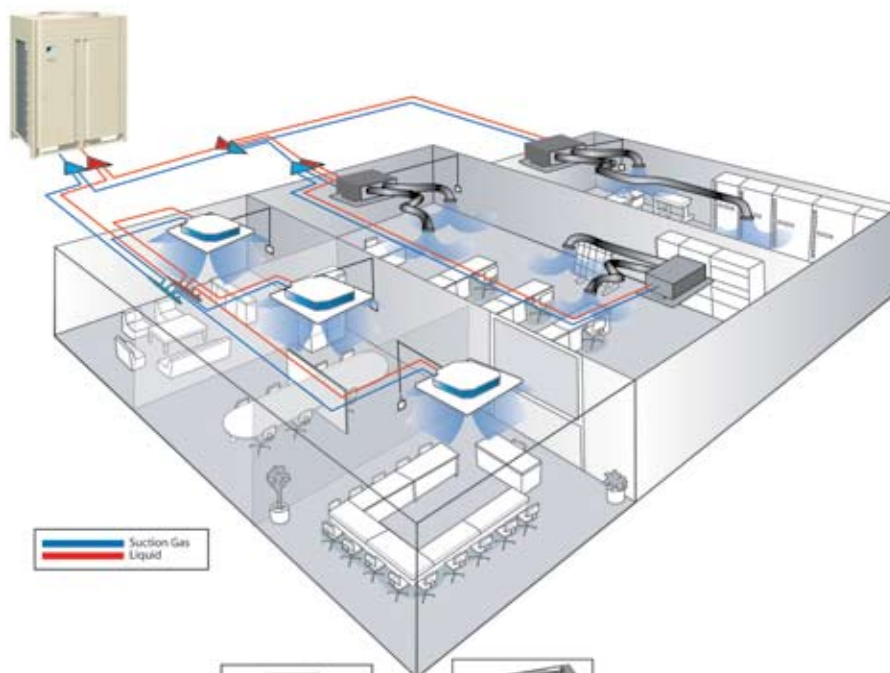
VRV. HOW DOES IT WORK?

At the heart of our system is a highly intelligent inverter-driven compressor. This advanced technology enables the output of the outdoor unit to be modulated by the cooling or heating demands of the zone that it controls. Available in both

heat pump and heat recovery formats, this advanced system allows for individual control of up to 20 indoor units of varying capacities and types at a connection ratio of 50%–130%, compared to outdoor unit capacity.

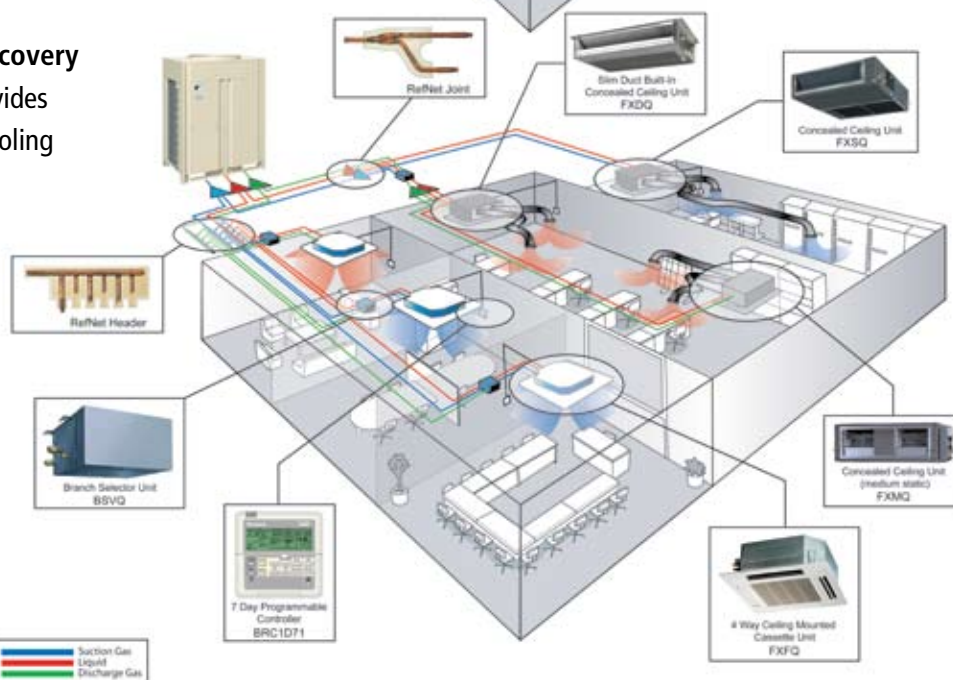
Inverter Heat Pump

- One system for either cooling or heating



Inverter Heat Recovery

- One system provides simultaneous cooling and heating





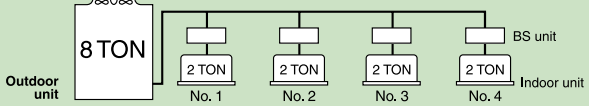
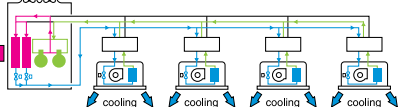
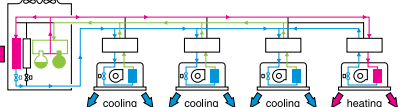
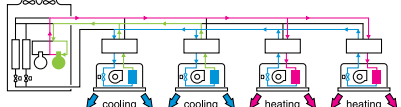
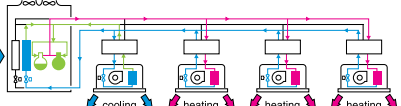
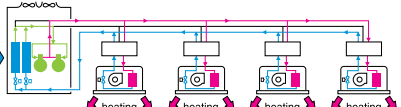
what is heat recovery?

Commercial office buildings are subject to the fluctuating heat levels generated from electronic office equipment, lighting and varying occupant levels. The heat recovery system offers the perfect solution for stabilizing the air temperature by providing all the features of a heat pump system – and the added flexibility of **simultaneous** cooling and heating from one refrigerant pipe network.

The heat recovery function is achieved by diverting exhaust heat from indoor units in cooling mode to areas requiring heating, and uses a Branch Selector (BS) unit to switch the indoor units from cooling to heating mode.

The VRV system keeps running costs at an absolute minimum by controlling each zone individually and being able to shut down completely in unoccupied areas.

ABSOLUTE COMFORT: INCREASED ENERGY SAVINGS BY HEAT RECOVERY

| Heat recovery operation mode | | | | | Total load | | | Standard ratio of power input for outdoor unit | | |
|---|--|-----------------|---|--|---------------------------------|---------------------------------|------------------------------|---|--|---------------------------|
|  | | | | | Cooling load (equipment TON) | Heating load (equipment TON) | Unit load (equipment TON) | Heat radiation to outdoor air (equipment TON) | Heat absorption from outdoor air (equipment TON) | Compressor power ratio |
| (A) | Heat radiation operation (all cooling operation) | Heat release |  | | 8 | — | 8 | 8 | — | 100 |
| (B) | Heat radiation tendency heat recovery operation (mainly cooling, part heating operation) | Heat release |  | | 6 | 2 | 8 | 4 | — | 48 |
| (C) | Heat recovery operation (cooling and heating operation) | |  | | 4 | 4 | 8 | — | — | 47 |
| (D) | Heat absorption tendency heat recovery operation (mainly heating, part cooling operation) | Heat absorption |  | | 2 | 6 | 8 | — | 4 | 72 |
| (E) | Heat absorption operation (all heating operation) | Heat absorption |  | | — | 8 | 8 | — | 8 | 89 |

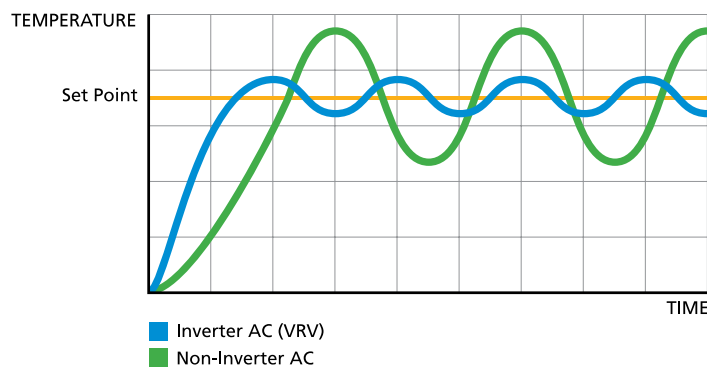


ABSOLUTE COMFORT – TECHNOLOGY THAT GIVES YOU COMPLETE CONTROL

The VRV system integrates cutting-edge inverter technology to give you total control over your entire building.

INVERTER TECHNOLOGY

The VRV system uses a variable Proportional Integral Derivative (PID) control system. This intelligent system gives added control over the rotational speed of the compressors, which allows the amount of refrigerant flowing in the system to vary depending upon fluctuating needs. This delivers maximum efficiency during partial load conditions by abbreviating the control steps into smaller units, providing precise temperature control in all zones.

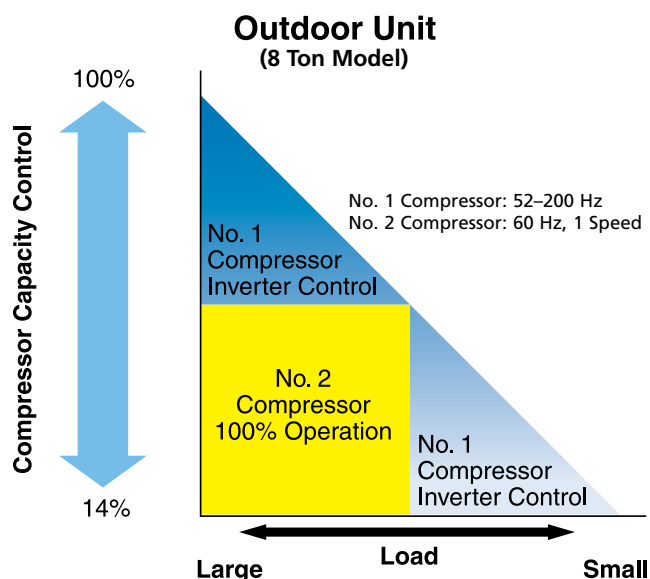


PRECISE ROOM TEMPERATURE CONTROL

Each indoor unit incorporates an electronic expansion valve that continually controls the flow rate of refrigerant. In this way, the VRV system maintains a nearly constant room temperature without the typical temperature fluctuations that occur with a conventional ON/OFF control system. The extremely refined PID control maintains room temperature to within $\pm 1^{\circ}\text{F}$ of the set temperature.

LESS FREQUENT STOP/START CYCLE

By using a combination of Daikin inverter and non-inverter scroll compressors to regulate capacity, switching losses or power surges are minimized. And by utilizing multiple 4-ton Daikin scroll compressors, the system ensures standby capacity.



absolute comfort – setting the industry standard



Neodymium
Magnet



Ferrite
Magnet



Reluctance Brushless
DC Compressor

OPTIMIZED R-410A DESIGN

R-410A

This industry benchmark is the world's first R-410A operated variable refrigerant volume (VRV) system and represents a considerable advance in efficiency over competitive systems.

1 AERO FITTING GRILLE AND AERO SPIRAL FAN

These smart design features create a compact, low-noise fan with a large airflow.

2 DC FAN MOTOR

Compared to conventional AC motors, a DC fan motor offers greater operating efficiency, especially during low-speed rotation.

3 SINE WAVE DC CONVERTER

Optimizing the sine wave curve results in smoother motor rotation and improved motor efficiency.

4 E-PASS HEAT EXCHANGER

Improved heat transfer is achieved by optimizing the path layout of the heat exchanger, resulting in greater exchanger efficiency.

5 RELUCTANCE BRUSHLESS DC COMPRESSOR

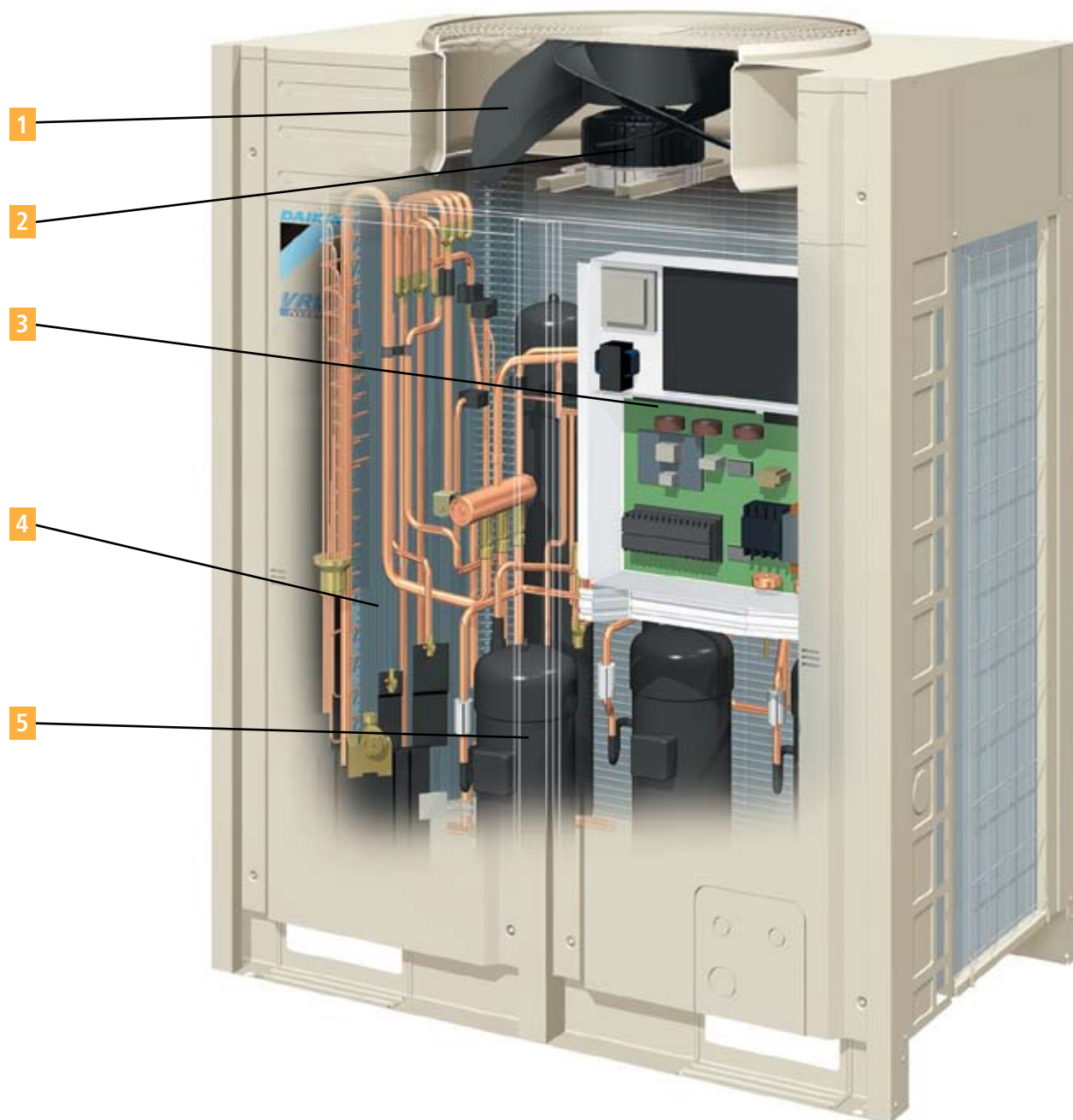
This compressor provides significant increases in efficiency compared to conventional AC inverter motors, simultaneously using two different forms of torque (normal and reluctance) to produce extra power from small electric currents.

The motor comprises powerful neodymium magnets that generate the reluctance torque. These magnets are approximately 12 times stronger than ferrite magnets and contribute to its substantial energy-saving performance.



i-DEMAND FUNCTION

With Power Consumption Management, you can limit the peak operation of the system to accommodate the building's energy supply.





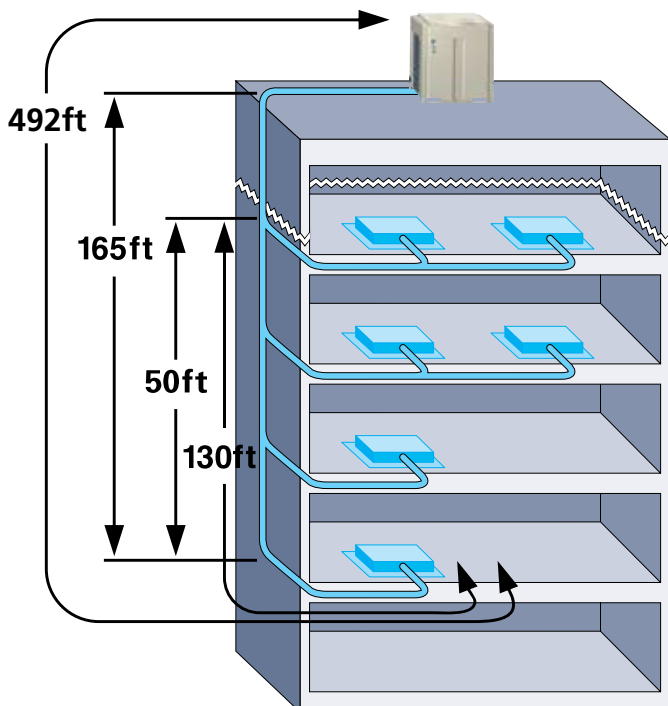
absolute
comfort –
flexibility
that works
around
you



REFNET™ Header



REFNET™ Joint



The VRV system's compact, modular design can accommodate practically any floor layout, allowing greater utilization of space.

REFNET™ PIPING: ANOTHER DAIKIN FIRST

Invented by Daikin, the advanced REFNET™ piping system is easy to install, and provides greater design flexibility than other competitive systems. Compared to regular T-joints and headers, the unique REFNET™ design increases system reliability and optimizes refrigerant flow.

LONG PIPE DESIGN: CREATE A SYSTEM THAT IS BUILT AROUND YOU

With long pipe design, outdoor units can be installed on the rooftop of a building, so full advantage can be taken of interior space:

- 492 ft. actual length or 575 ft. equivalent piping length to the most distant indoor unit
- 165 ft. height difference
- 50 ft. level difference between indoor units
- 130 ft. from first distribution point
- 1,000 ft. total piping length

NO STRUCTURAL REINFORCEMENT NECESSARY

The application of galbarium steel allows for the use of block foundations instead of full-beam foundations. And due to the outdoor unit's lightweight and vibration-free construction, floors do not need to be reinforced, which reduces overall building costs.

FLOOR-BY-FLOOR FLEXIBILITY

During construction or renovation, the system's advanced zoning capabilities allow each floor to be occupied upon completion.

advantages: engineer and architect

Freedom of design and technological flexibility are every architect's dream and every engineer's goal. At Daikin, we're doing everything we can to help make this a reality. Our advanced VRV system gives you all the opportunities and solutions you need. Opportunities to make the most of any space or structure. And innovative solutions that address any design challenge. Our proprietary software tool lets you incorporate specific client requirements creatively, efficiently and cost-effectively.

SOFTWARE-BASED DESIGN TOOL

Just about anything's possible with our proprietary, cutting-edge System Design & Selection Tool. Use it to design a system that fits seamlessly into the most awkward space, calculate system performance and ensure that all necessary design parameters are included in specification and engineering drawings.

DESIGN-FRIENDLY PIPING NETWORK

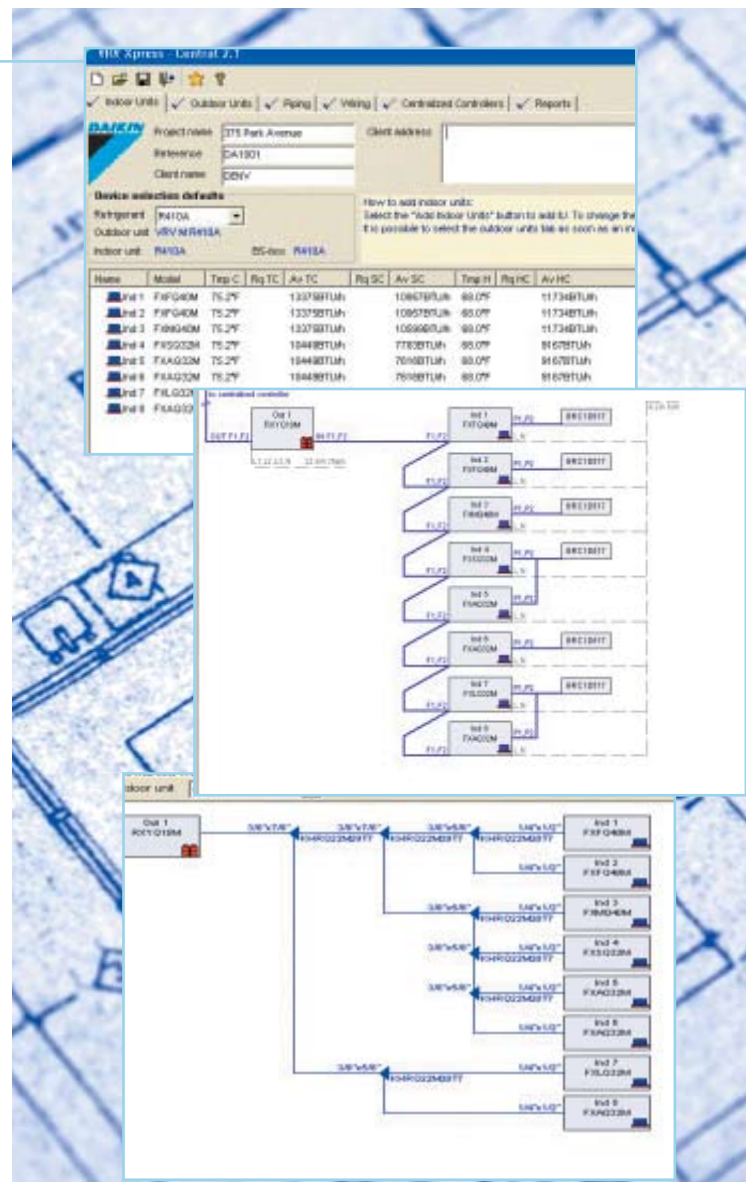
Our innovative piping network provides more flexibility for more customizable design options. With Daikin, pipe lengths are permitted up to 492 ft. actual length, 165 ft. height difference, 130 ft. from first distribution point, 50 ft. level difference between indoor units and 1,000 ft. total piping length.

EASY INTEGRATION INTO BMS

Streamline your central management and control facilities instantly with advanced Building Management Systems (BMS) via the Daikin BACnet® and LonWorks® Networks Compatible Gateways. Alternative BMS solutions can be provided with the use of Daikin interface PCBs.

FLOOR-BY-FLOOR INSTALLATION (INCLUDING FAST COMMISSIONING)

Our VRV system makes this possible with its highly flexible and simple Super Wiring and REFNET™ piping systems, and an outdoor unit with a fan motor that has the external static pressure of up to 60Pa (0.24" WG). This means you can design a system with an outdoor unit located internally on each floor, with air circulated through short ductwork.





advantages: contractor

From the moment you study the blueprints to the time you complete the installation of a Daikin VRV system, you'll be struck by how quickly, smoothly and efficiently everything comes together. The system's compact and lightweight units, along with its flexible piping and wiring design, simplify the entire process, so you achieve faster turnaround time per project.

With improved efficiencies in time and labor come increased productivity and greater profitability. Bottom line, Daikin provides everything you could wish for from an installation.

QUICK INSTALLATION, ENHANCED PRODUCTIVITY

Daikin's advanced VRV system takes less time to install than a conventional ducted system. Faster turnaround time means that you can increase the number of installations per year, complete more projects and achieve greater productivity per man-hour.



SIMPLIFIED PIPING SELECTION AND DESIGN

Another Daikin innovation: Our REFNET™ piping system substantially reduces the time and labor needed for installation. Pipe sizing throughout the refrigerant network is determined by simple extraction from tabular data, and distribution is via REFNET™ joints and headers. Unlike conventional ducted systems, our VRV system is factory engineered when delivered.

SUPER WIRING SYSTEM

Super Wiring; Super Efficiency. Our nonpolarized, two-wire multiplex transmission system makes it possible to connect up to 1,024 indoor units on a single wiring system. This trouble-free system simplifies the entire wiring operation and eradicates control errors on commissioning.

ADVANCED DIAGNOSTICS

During operation, the VRV system is so responsive, the advanced self-diagnostic auto-check function will alert you to a problem, so you can resolve it quickly and effectively.

COMPACT, LIGHTWEIGHT UNITS

Designed with superior space-saving capabilities, Daikin's indoor units can be installed practically anywhere. Our lightweight outdoor units can be transported in building elevators with no special cranes or lifting equipment necessary.



advantages: building owner

Superior zoning and spacing capabilities. Energy efficient. Unmatched reliability. Fast installation. These are just some of the attributes you should insist upon when choosing an air-conditioning system. And Daikin's VRV provides them all and more. The system's unique, modular design is the answer to all your space-saving concerns. With advanced zoning technology you have complete control over your entire building – floor by floor, zone by zone, room by room – which provides you with two more very important benefits: enhanced energy efficiency and lower operating costs.

REDUCED OPERATING COSTS

It's simple: greater energy efficiency greatly reduces your operating costs. Daikin's VRV system makes this possible because it allows you to control each room individually. You can even shut down operations in zones or rooms that are not in use. In addition, advanced inverter technology allows for precise temperature control so AC levels can match room conditions.

EFFICIENT USE OF SPACE

Thanks to longer pipe design capabilities, the distance between indoor and outdoor units can be as great as 492 feet. This allows you to place our lightweight outdoor units on the rooftop, with minimal structural reinforcement, and free up valuable space inside.

SHORT INSTALLATION TIME

The simplicity of Super Wiring and REFNET™ piping systems helps reduce both the time and cost of installation. And because these systems can be installed on a floor-by-floor basis, occupants can move in as each floor is completed.

INTELLIGENT TOUCH CONTROLLER

The Intelligent Touch Controller, with its user-friendly color icons, multilingual functions and scheduling capabilities, makes management of A/C units and other facilities equipment easy, even among multiple buildings. Combined with the Daikin VRV in heat pump and heat recovery versions, Intelligent Touch Controller enables

building owners, facility managers and administrators to monitor and operate up to 64 groups (128 zones) remotely through any Web browser.

Notifications and status updates can be routed to an e-mail or mobile phone. An optional proportional power distribution feature provides apportionment of the total power consumption by Daikin air-conditioning systems to individual units on the system.





advantages: occupant/end user

Imagine a system that allows you to create the perfect environment. The ideal temperature. Technology that's responsive and intelligent. Technology so advanced, the results are simply breathtaking. That's the promise of Daikin's VRV system. With all the comfort and control you could ever wish for – a personalized comfort zone all your own. And because our revolutionary system blends Comfort-Quiet technology with compact design, you can feel perfection without having to hear or see where it's coming from.



INDIVIDUAL COMFORT AND CONTROL

Total control brings greater comfort. With our VRV system, each room or zone can have its own separate indoor unit and thermostat. This provides you with personalized comfort settings throughout the building. For example, if the temperature in a particular zone changes throughout the day – such as in a conference room – the inverter automatically adjusts the refrigerant flow to deliver the correct amount of heating or cooling. And with the system's sophisticated PID control, room temperature can be maintained to within $\pm 1^{\circ}\text{F}$ of the set temperature, which is seldom possible with a conventional ON/OFF control system.

LCD REMOTE CONTROL

Create the perfect environment with Daikin's super-intelligent system controller. Its large, Liquid Crystal Display (LCD) is easy to read. And its functions are so simple to use. At the touch of a button, you can set mode and temperature. Monitor individual zones or rooms. Check airflow volume, and much more. Here's everything needed to create personalized comfort zones.

COMFORT-QUIET OPERATION

You can hear yourself think with a VRV system. With a low-operating sound level, all Daikin indoor units deliver maximum performance – comfort quietly. At night, the sound level of our outdoor unit can be reduced by setting the unit's night setback function.



Daikin's advanced, reliable, energy-efficient and flexible VRV air-conditioning system can deliver Absolute Comfort to practically any building of any shape, size or age. That's why it's the ideal solution for schools, hotels, financial institutions, offices, hospitals, stores, restaurants and much more.





RXYQ/REYQ VRV outdoor units



Outdoor Unit

RXYQ72/REYQ72
RXYQ96/REYQ96



RXYQ144/REYQ144
RXYQ168/REYQ168
RXYQ192/REYQ192



BSVQ

Branch Selector Unit

Compact. Modular. Robust. Cost-efficient.

More compact than conventional outdoor units, our inverter heat pump and heat recovery units can be easily transported via elevator, and need no structural reinforcement once installed. In the unlikely event of a compressor malfunction, the backup function takes over to deliver 75 percent capacity (144, 168, 192 models) during emergency operation, eliminating the need for expensive standby equipment.

Inverter Heat Pump and Heat Recovery Units

6 / 8 / 12 / 14 / 16 Tons

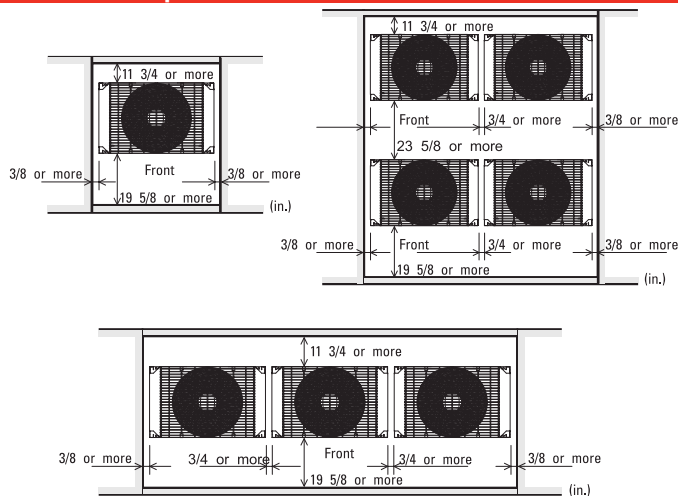
- Inverter Heat Pump units allow for either cooling or heating from one system
- Inverter Heat Recovery units provide simultaneous operation of heating and cooling with greater energy efficiency within the same circuit
- Up to 20 indoor units can be operated from a single outdoor unit using a variable-speed compressor system with 42 capacity steps
- Continuous operation 0°F DB (-5°F WB) – 64°F DB (60°F WB) in heating mode and 23°F DB – 110°F DB in cooling mode
- Daikin's optimized scroll compressor designed for R-410A provides a quiet, reliable energy-efficient operation
- Daikin's management and oil-equalizing technology assures maximum reliability and flexibility to the VRV system with piping lengths of up to 492 ft., for a total networked length of up to 1,000 ft. liquid line.
- Anticorrosion treatment standard on exterior metal parts and heat exchanger
- Fully compatible with the complete Daikin control suite including Intelligent Touch controller, and the LonWorks® and BACnet® gateways



| Outdoor Unit - Heat Pump | | 6 Ton | 8 Ton | 12 Ton | 14 Ton | 16 Ton |
|-----------------------------|------------|----------------------|----------------------|--|--|---|
| Model Included | | RXYQ72MTJU | RXYQ96MTJU | RXYQ144MTJU (RXYQ72MTJU + RXYQ72MTJU) | RXYQ168MTJU (RXYQ72MTJU + RXYQ96MTJU) | RXY192MTJU (RXYQ96MTJU + RXYQ96MTJU) |
| Cooling Capacity | Btu/h | 72,000 | 96,000 | 144,000 | 168,000 | 192,000 |
| Cooling Input Power | kW | 5.7 | 8.67 | 11.4 | 14.4 | 17.3 |
| Heating Capacity | Btu/h | 80,000 | 108,000 | 160,000 | 188,000 | 216,000 |
| Heating Input Power | kW (Btu/h) | 6.6 (22,519) | 9.19 (31,356) | 13.2 (45,038) | 15.8 (53,910) | 18.4 (62,781) |
| Operating Range - Cooling | °FDB | 23 - 110 | 23 - 110 | 23 - 110 | 23 - 110 | 23 - 110 |
| Operating Range - Heating | °FDB/°FWB | 0 - 64/-5 - 60 | 0 - 64/-5 - 60 | 0 - 64/-5 - 60 | - 64/-5 - 60 | 0 - 64/-5 - 60 |
| Power | V/Ph/Hz | 208-230/3/60 | 208-230/3/60 | 208-230/3/60 | 208-230/3/60 | 208-230/3/60 |
| Sound Pressure Level @ 3ft. | dB(A) | 60 | 60 | 63 | 63 | 63 |
| Airflow H/L | cfm | 7,400 | 7,400 | 7,400 + 7,400 | 7,400 + 7,400 | 7,400 + 7,400 |
| Vertical Pipe Length | ft. | 164 | 164 | 164 | 164 | 164 |
| Actual Pipe Length | ft. | 492 | 492 | 492 | 492 | 492 |
| Equivalent Pipe Length | ft. | 575 | 575 | 575 | 575 | 575 |
| Total Pipe Length | ft. | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Max. No. Of Indoor Units | | 13 | 16 | 20 | 20 | 20 |
| Connection Ratio | % | 70-130 | 50-130 | 70-130 | 70-130 | 50-130 |
| Weight | lbs. | 666 | 666 | 666 + 666 | 666 + 666 | 666 + 666 |
| Dimensions (H x W x D) | in. | 64 x 48 7/8 x 30 1/8 | 64 x 48 7/8 x 30 1/8 | 64 x 48 7/8 (x2) x 30 1/8 | 64 x 48 7/8 (x2) x 30 1/8 | 64 x 48 7/8 (x2) x 30 1/8 |

| Outdoor Unit - Heat Recovery | | 6 Ton | 8 Ton | 12 Ton | 14 Ton | 16 Ton |
|------------------------------|------------|----------------------|----------------------|--|--|---|
| Model Included | | REYQ72MTJU | REYQ96MTJU | REYQ144MTJU (REYQ72MTJU + REYQ72MTJU) | REYQ168MTJU (REYQ72MTJU + REYQ96MTJU) | REY192MTJU (REYQ96MTJU + REYQ96MTJU) |
| Cooling Capacity | Btu/h | 72,000 | 96,000 | 144,000 | 168,000 | 192,000 |
| Cooling Input Power | kW | 5.7 | 8.67 | 11.4 | 14.4 | 17.3 |
| Heating Capacity | Btu/h | 80,000 | 108,000 | 160,000 | 188,000 | 216,000 |
| Heating Input Power | kW (Btu/h) | 6.6 (22,519) | 9.19 (31,356) | 13.2 (45,038) | 15.8 (53,910) | 18.4 (62,781) |
| Operating Range - Cooling | °FDB | 23 - 110 | 23 - 110 | 23 - 110 | 23 - 110 | 23 - 110 |
| Operating Range - Heating | °FDB/°FWB | 0 - 64/-5 - 60 | 0 - 64/-5 - 60 | 0 - 64/-5 - 60 | - 64/-5 - 60 | 0 - 64/-5 - 60 |
| Power | V/Ph/Hz | 208-230/3/60 | 208-230/3/60 | 208-230/3/60 | 208-230/3/60 | 208-230/3/60 |
| Sound Pressure Level @ 3ft. | dB(A) | 60 | 60 | 63 | 63 | 63 |
| Airflow H/L | cfm | 7,400 | 7,400 | 7,400 + 7,400 | 7,400 + 7,400 | 7,400 + 7,400 |
| Vertical Pipe Length | ft. | 164 | 164 | 164 | 164 | 164 |
| Actual Pipe Length | ft. | 492 | 492 | 492 | 492 | 492 |
| Equivalent Pipe Length | ft. | 575 | 575 | 575 | 575 | 575 |
| Total Pipe Length | ft. | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Max. No. Of Indoor Units | | 13 | 16 | 20 | 20 | 20 |
| Connection Ratio | % | 70-130 | 50-130 | 70-130 | 70-130 | 50-130 |
| Weight | lbs. | 666 | 666 | 666 + 666 | 666 + 666 | 666 + 666 |
| Dimensions (H x W x D) | in. | 64 x 48 7/8 x 30 1/8 | 64 x 48 7/8 x 30 1/8 | 64 x 48 7/8 (x2) x 30 1/8 | 64 x 48 7/8 (x2) x 30 1/8 | 64 x 48 7/8 (x2) x 30 1/8 |

Installation Space



Branch Selector Up to 3 Ton Up to 5 Ton

| | | (For use with REYQ Condensing Units) | |
|-----------------------|-------------------|--------------------------------------|---------------------|
| Model | | BSVQ36MVJU | BSVQ60MVJU |
| Connection Capacity | | 36,000 Btu/h | 60,000 Btu/h |
| Pipe Work Connections | Outdoor Unit Side | 5/8" Flare (Suction Gas) | |
| | | 1/2" Flare (Discharge Gas) | |
| | Indoor Unit Side | 3/8" Flare (Liquid) | |
| | | 5/8" Flare (Gas) | |
| Weight | | lbs. 16 | 18 |
| Dimensions | | in. 7 1/4 x 12 1/4 x 11 | 7 1/4 x 12 1/4 x 11 |



FXDQ Slim Duct Built-In Concealed Ceiling Unit



Condensate Pump as standard



Outside air integration possible



Filter included

Concealed. Powerful. Compact. Reliable.



The slim duct built-in concealed unit is available for use with the VRV systems to complement the existing concealed ceiling unit options (FXSQ, FXMQ). With its low profile, low sound level, this unit can be installed into limited ceiling void, bulkhead and soffit space.

Features and Benefits

- Slim height, at only 7-7/8" (the lowest in the industry), makes it suitable for most of the applications where attic / bulkhead space is limited
- With a sound level as low as 29dBA for the 7, 9 or 12MBH indoor unit, these units are among the quietest on the market
- Factory set rear suction, bottom suction is possible to reverse
- Washable filter included
- Condensate pump with vertical lift of up to 24" included as standard
- External static pressure selectable switch (0.04" wg - 0.16" wg/factory: 0.04")



| FXDQ SPECIFICATIONS | | 0.5 Ton | 0.75 Ton | 1 Ton | 1.5 Ton | 2 Ton |
|------------------------------|------------|------------------------------------|-------------|-------------|-------------|-------------|
| Model Name | | FXDQ07MVJU | FXDQ09MVJU | FXDQ12MVJU | FXDQ18MVJU | FXDQ24MVJU |
| Power Supply | | 1ph 208-230V 60Hz | | | | |
| Cooling Capacity | Btu/h | 7,500 | 9,500 | 12,000 | 18,000 | 24,000 |
| Heating Capacity | Btu/h | 8,500 | 10,500 | 13,500 | 20,000 | 27,000 |
| Refrigerant | | R-410A | R-410A | R-410A | R-410A | R-410A |
| Refrigerant Control | | Electronic Expansion Valve | | | | |
| Airflow Rate H/L | cfm | 280/226 | 280/226 | 280/226 | 440/350 | 580/460 |
| Unit Weight | lbs. | 51 | 51 | 51 | 63 | 71 |
| Unit Height | in. | 7 7/8 | 7 7/8 | 7 7/8 | 7 7/8 | 7 7/8 |
| Unit Width | in. | 27 9/16 | 27 9/16 | 27 9/16 | 35 7/16 | 43 5/16 |
| Unit Depth | in. | 24 7/16 | 24 7/16 | 24 7/16 | 24 7/16 | 24 7/16 |
| Sound Pressure H/L | dB(A) | 33/29 | 33/29 | 33/29 | 35/31 | 36/32 |
| External Static Pressure H/L | in. WG | 0.12 - 0.04 | 0.12 - 0.04 | 0.12 - 0.04 | 0.16 - 0.06 | 0.16 - 0.06 |
| Unit Condensate Connection | in. O.D. | 1 1/32 | 1 1/32 | 1 1/32 | 1 1/32 | 1 1/32 |
| Drain Pump Lift | in. | 21 5/8 | 21 5/8 | 21 5/8 | 21 5/8 | 21 5/8 |
| Pipe Connections | Gas in. | 1/2" Flare | 1/2" Flare | 1/2" Flare | 1/2" Flare | 1/2" Flare |
| | Liquid in. | 1/4" Flare | 1/4" Flare | 1/4" Flare | 1/4" Flare | 1/4" Flare |
| External Finish | | Galvanized Steel Plate | | | | |
| Protection Devices | | Fuse | | | | |
| | | Fan Motor Thermal Protector | | | | |
| Recommended Fuse/Breaker | A | 15 | 15 | 15 | 15 | 15 |
| Standard Filter Type | | Removeable, Washable, Mildew Proof | | | | |

Nominal Conditions:

Cooling Mode

Indoor: 80 °F DB / 67 °F WB
Outdoor: 95 °F DB
Pipe Length: 25 ft.
Level Difference: 0 ft.

Heating Mode

Indoor: 70 °F DB
Outdoor: 47 °F DB / 43 °F WB
Pipe Length: 25 ft.
Level Difference: 0 ft.

Note:

Specifications are subject to change without notice.

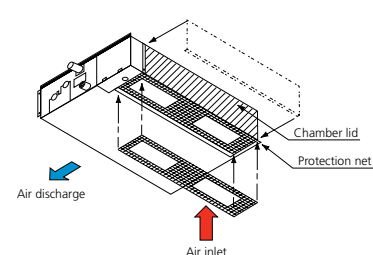
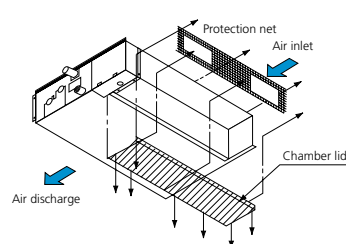
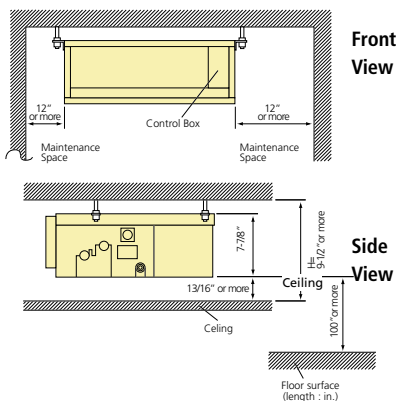
FXDQ ACCESSORIES

| | | | | | |
|--|------------|------------|------------|------------|------------|
| Model Name | FXDQ07MVJU | FXDQ09MVJU | FXDQ12MVJU | FXDQ18MVJU | FXDQ24MVJU |
| Wired Remote Controller | BRC1D71 | BRC1D71 | BRC1D71 | BRC1D71 | BRC1D71 |
| Simplified Wired Remote Controller | BRC2A71 | BRC2A71 | BRC2A71 | BRC2A71 | BRC2A71 |
| Wireless Remote Controller | BRC4C82 | BRC4C82 | BRC4C82 | BRC4C82 | BRC4C82 |
| Remote Sensor Kit | KRCS01-1 | KRCS01-1 | KRCS01-1 | KRCS01-1 | KRCS01-1 |
| Wiring Adaptor PCB | KRP1B56 | KRP1B56 | KRP1B56 | KRP1B56 | KRP1B56 |
| (interface with aux/primary heater, humidifier, OA damper/fan) | | | | | |
| Group Control Adaptor PCB | KRP4A74 | KRP4A74 | KRP4A74 | KRP4A74 | KRP4A74 |
| (connects to external BMS) | | | | | |

FXDQ INSTALLATION SPACE

Choose an installation site that ensures both optimum air distribution and sufficient clearance for maintenance.

The return air inlet can be easily changed from rear to bottom using the same chamber lid.





FXMQ concealed ceiling unit (medium static)



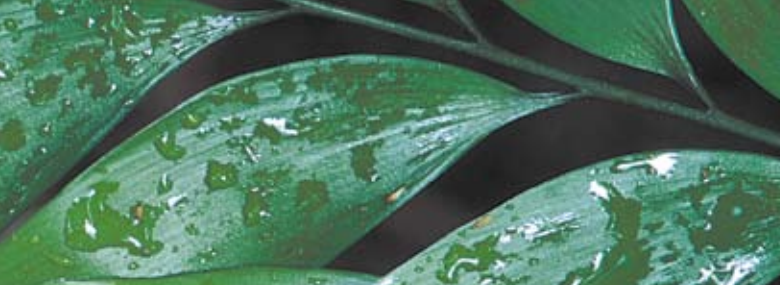
Outside air integration possible

Concealed. Powerful. Compact. Reliable.



For large, well-populated spaces in need of a concealed air-conditioning system, you can count on our ceiling-mounted duct air conditioner. This extremely powerful unit's compact design allows it to be completely concealed – and is perfect for any medium to large office, restaurant, shop, or even hotel ballroom.

- Flexible, space-saving design helps maximize floor and wall space
- Advanced zoning capabilities make it ideal for use in large areas
- Allows the connection of nearly 1" WG of ductwork
- Models range from 30,000 Btu/h to 48,000 Btu/h
- Optional condensate pump and high-efficiency filters



FXMQ SPECIFICATIONS

| | | 2.5 Ton | 3 Ton | 4 Ton |
|-------------------------------------|------------|-----------------------------|-------------------|-------------------|
| Model Name | | FXMQ30MVJU | FXMQ36MVJU | FXMQ48MVJU |
| Power Supply | | 1ph 208–230V 60Hz | 1ph 208–230V 60Hz | 1ph 208–230V 60Hz |
| Cooling Capacity | Btu/h | 30,000 | 36,000 | 48,000 |
| Heating Capacity | Btu/h | 34,000 | 40,000 | 54,000 |
| Refrigerant | | R-410A | R-410A | R-410A |
| Refrigerant Control | | Electronic Expansion Valve | | |
| Airflow Rate H/L | cfm | 690 / 565 | 1020 / 810 | 1270 / 1020 |
| Unit Weight | lbs. | 99 | 139 | 144 |
| Unit Height | in. | 15 3/8 | 15 3/8 | 15 3/8 |
| Unit Width | in. | 28 3/8 | 43 3/4 | 43 3/4 |
| Unit Depth | in. | 27 1/8 | 27 1/8 | 27 1/8 |
| Sound Pressure H/L | dB(A) | 45 / 41 | 45 / 41 | 48 / 45 |
| External Static Pressure H/L | in. WG | 0.66" / 0.43" | 0.71" / 0.43" | 1.00" / 0.72" |
| Unit Condensate Connection | in. O.D. | 1 1/4" | 1 1/4" | 1 1/4" |
| Pipe Connections | Gas in. | 5/8" Flare | 5/8" Flare | 5/8" Flare |
| | Liquid in. | 3/8" Flare | 3/8" Flare | 3/8" Flare |
| External Finish | | Galvanized Steel Plate | | |
| Protection Devices | | Fuse | | |
| | | Fan Motor Thermal Protector | | |
| Recommended Fuse/Breaker | A | 15 | 15 | 15 |

Nominal Conditions:

Cooling Mode

Indoor: 80 °F DB / 67 °F WB
 Outdoor: 95 °F DB
 Pipe Length: 25 ft.
 Level Difference: 0 ft.

Heating Mode

Indoor: 70 °F DB
 Outdoor: 47 °F DB / 43 °F WB
 Pipe Length: 25 ft.
 Level Difference: 0 ft.

Note:

Specifications are subject to change without notice.

FXMQ ACCESSORIES

| | | | | |
|--|-------------------|--------------|--------------|--------------|
| Model Name | | FXMQ30MVJU | FXMQ36MVJU | FXMQ48MVJU |
| Wired Remote Controller | | BRC1D71 | BRC1D71 | BRC1D71 |
| Simplified Wired Remote Controller | | BRC2A71 | BRC2A71 | BRC2A71 |
| Wireless Remote Controller | | BRC4C82 | BRC4C82 | BRC4C82 |
| Wiring Adaptor PCB | | KRP1B71 | KRP1B71 | KRP1B71 |
| (interface with aux/primary heater, humidifier, OA damper/fan) | | | | |
| Group Control Adaptor PCB | | KRP4A71 | KRP4A71 | KRP4A71 |
| (connects to external BMS) | | | | |
| Remote Sensor Kit | | KRCS01-1 | KRCS01-1 | KRCS01-1 |
| High-Efficiency Filter | 65% (calorimeter) | KAFP302A80 | KAFP372A160 | KAFP372A160 |
| High-Efficiency Filter | 90% (calorimeter) | KAFP373A80 | KAFP373A160 | KAFP373A160 |
| Filter Chamber | | KDDFP37A80 | KDDFP37A160 | KDDFP37A160 |
| Long-Life Filter | | KAFP371A80 | KAFP371A160 | KAFP371A160 |
| Condensate Pump Accessory | | KDU-30L125VE | KDU-30L125VE | KDU-30L125VE |

FXSQ concealed ceiling unit



Condensate Pump as standard



Outside air integration possible



Filter included

Elegant. Quiet. Flexible. Invisible.

An intelligent option for smaller zones, the FXSQ is a very quiet, ceiling-concealed unit that blends perfectly into any décor. In fact, only a few grids are visible on the ceiling, making it perfect for use in restaurants, exclusive stores, hotel rooms, reception areas and offices.

- Compact design helps maximize space in small zones
- Can be used with flexible ducts of varying lengths
- Sound pressure level as low as 35dB(A) makes it ideal for hotels, offices and exclusive stores
- Electrical panel can be reached from the side or bottom for ease of service and maintenance
- Fitted with a long-life filter and condensate pump as standard
- Models range from 12,000 Btu/h to 48,000 Btu/h
- The air suction direction can be altered from bottom to rear suction





| FXSQ SPECIFICATIONS | | 1 Ton | 1.5 Ton | 2 Ton | 2.5 Ton | 3 Ton | 4 Ton |
|------------------------------|------------|--|-------------------|-------------------|-------------|-------------|-------------|
| Model Name | | FXSQ12MVJU | FXSQ18MVJU | FXSQ24MVJU | FXSQ30MVJU | FXSQ36MVJU | FXSQ48MVJU |
| Power Supply | | 1ph 208-230V 60Hz | | | | | |
| Cooling Capacity | Btu/h | 12,000 | 18,000 | 24,000 | 30,000 | 36,000 | 48,000 |
| Heating Capacity | Btu/h | 13,500 | 20,000 | 27,000 | 34,000 | 40,000 | 54,000 |
| Refrigerant | | R-410A | R-410A | R-410A | R-410A | R-410A | R-410A |
| Refrigerant Control | | Electronic Expansion Valve | | | | | |
| Airflow Rate H/L | cfm | 340 / 230 | 530 / 390 | 740 / 490 | 950 / 720 | 990 / 740 | 1300 / 950 |
| Unit Weight | lbs. | 69 | 73 | 95 | 119 | 119 | 122 |
| Unit Height | in. | 11 7/8 | 11 7/8 | 11 7/8 | 11 7/8 | 11 7/8 | 11 7/8 |
| Unit Width | in. | 21 5/8 | 27 1/2 | 39 3/8 | 55 1/8 | 55 1/8 | 55 1/8 |
| Unit Depth | in. | 31 1/2 | 31 1/2 | 31 1/2 | 31 1/2 | 31 1/2 | 31 1/2 |
| Sound Pressure H/L | dB(A) | 41 / 35 | 44 / 38 | 44 / 38 | 45 / 39 | 45 / 39 | 48 / 43 |
| External Static Pressure H/L | in.WG | 0.37"/0.19"/0.06" | 0.38"/0.19"/0.06" | 0.51"/0.29"/0.06" | 0.57"/0.39" | 0.57"/0.35" | 0.34"/0.10" |
| Unit Condensate Connection | in. O.D. | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| Condensate Pump Lift | in. | 24 1/2" | 24 1/2" | 24 1/2" | 24 1/2" | 24 1/2" | 24 1/2" |
| Pipe Connections | Gas in. | 1/2" Flare | 1/2" Flare | 5/8" Flare | 5/8" Flare | 5/8" Flare | 5/8" Flare |
| | Liquid in. | 1/4" Flare | 1/4" Flare | 3/8" Flare | 3/8" Flare | 3/8" Flare | 3/8" Flare |
| External Finish | | Galvanized Steel Plate | | | | | |
| Protection Devices | | Fuse | | | | | |
| | | Fan Motor Thermal Protector | | | | | |
| Recommended Fuse/Breaker | A | 15 | 15 | 15 | 15 | 15 | 15 |
| Standard Filter Type | | Resin Net (with Mold Resistant) | | | | | |
| Nominal Conditions: | | <div> <div> Cooling Mode Indoor: 80 °F DB / 67 °F WB Outdoor: 95 °F DB Pipe Length: 25 ft. Level Difference: 0 ft. </div> <div> Heating Mode Indoor: 70 °F DB Outdoor: 47 °F DB / 43 °F WB Pipe Length: 25 ft. Level Difference: 0 ft. </div> <div> Note: Specifications are subject to change without notice. </div> </div> | | | | | |

| FXSQ ACCESSORIES | | FXSQ12MVJU | FXSQ18MVJU | FXSQ24MVJU | FXSQ30MVJU | FXSQ36MVJU | FXSQ48MVJU |
|--|-----|------------|------------|------------|-------------|-------------|-------------|
| Wired Remote Controller | | BRC1D71 | BRC1D71 | BRC1D71 | BRC1D71 | BRC1D71 | BRC1D71 |
| Simplified Wired Remote Controller | | BRC2A71 | BRC2A71 | BRC2A71 | BRC2A71 | BRC2A71 | BRC2A71 |
| Wireless Remote Controller | | BRC4C82 | BRC4C82 | BRC4C82 | BRC4C82 | BRC4C82 | BRC4C82 |
| Decoration Panel | | BYBS32DJW1 | BYBS45DJW1 | BYBS71DJW1 | BYBS125DJW1 | BYBS125DJW1 | BYBS125DJW1 |
| Access Panel | | KTBJ25K36W | KTBJ25K56W | KTBJ25K80W | KTBJ25K160W | KTBJ25K160W | KTBJ25K160W |
| Remote Sensor Kit | | KRCS01-1 | KRCS01-1 | KRCS01-1 | KRCS01-1 | KRCS01-1 | KRCS01-1 |
| Wiring Adaptor PCB | | KRP1B71 | KRP1B71 | KRP1B71 | KRP1B71 | KRP1B71 | KRP1B71 |
| (interface with aux/primary heater, humidifier, OA damper/fan, etc.) | | | | | | | |
| Group Control Adaptor PCB | | KRP4A71 | KRP4A71 | KRP4A71 | KRP4A71 | KRP4A71 | KRP4A71 |
| (connects to external BMS) | | | | | | | |
| High-Efficiency Filter | 65% | KAFJ252L36 | KAFJ252L56 | KAFJ252L80 | KAFJ252L160 | KAFJ252L160 | KAFJ252L160 |
| High-Efficiency Filter | 90% | KAFJ253L36 | KAFJ253L56 | KAFJ253L80 | KAFJ253K160 | KAFJ253K160 | KAFJ253K160 |
| Long-Life Replacement Filter | | KAFJ251K36 | KAFJ251K56 | KAFJ251K80 | KAFJ251L160 | KAFJ251L160 | KAFJ251L160 |
| Filter Chamber, Bottom Suction | | KAJ25L36D | KAJ25L56D | KAJ25L80D | KAJ25L160D | KAJ25L160D | KAJ25L160D |
| Filter Chamber, Rear Suction | | KAJ25L36B | KAJ25L56B | KAJ25L80B | KAJ25L160B | KAJ25L160B | KAJ25L160B |
| Screening Door | | KBBJ25K36 | KBBJ25K56 | KBBJ25K80 | KBBJ25K160 | KBBJ25K160 | KBBJ25K160 |
| Air Suction Flange | | KDJ2507K36 | KDJ2507K56 | KDJ2507K80 | KDJ2507K160 | KDJ2507K160 | KDJ2507K160 |
| Air Discharge Adaptor | | KDAJ25K36 | KDAJ25K56 | KDAJ25K71 | KDAJ25K140 | KDAJ25K140 | KDAJ25K140 |

| FXSQ INSTALLATION SPACE | | | | | | | | | | | |
|---|----------|---------|------------|----|------------|--------|------------|----------|----------------------|---------|---|
| <p>For mounting air inlet panel directly</p> <p>Ceiling surface</p> <p>7 1/16</p> <p>13 3/4 or more</p> <p>18 1/8</p> <p>Air inlet panel (Optional accessory)</p> <p>Indoor unit (Back side)</p> <p>A</p> <p>(Ceiling opening) (length : in.)</p> <table border="1"> <thead> <tr> <th>Model</th><th>A (in.)</th></tr> </thead> <tbody> <tr> <td>FXSQ12MVJU</td><td>24</td></tr> <tr> <td>FXSQ18MVJU</td><td>29 7/8</td></tr> <tr> <td>FXSQ24MVJU</td><td>41 11/16</td></tr> <tr> <td>FXSQ30 - 36 - 48MVJU</td><td>57 7/16</td></tr> </tbody> </table> | Model | A (in.) | FXSQ12MVJU | 24 | FXSQ18MVJU | 29 7/8 | FXSQ24MVJU | 41 11/16 | FXSQ30 - 36 - 48MVJU | 57 7/16 | <p>Exhaust fan in high place or less</p> <p>Maintenance space</p> <p>Drain pipe</p> <p>Liquid pipe</p> <p>Gas pipe</p> <p>Power supply wiring port</p> <p>Transmission wiring port</p> <p>Maintenance drain hose</p> <p>Paper pattern for installation</p> <p>Screws for fixing the for paper pattern for installation (6 accessories)</p> <p>• Install this unit where the height of bottom panel is more than 8.2 ft. so it cannot be easily touched. (length: in.)</p> |
| Model | A (in.) | | | | | | | | | | |
| FXSQ12MVJU | 24 | | | | | | | | | | |
| FXSQ18MVJU | 29 7/8 | | | | | | | | | | |
| FXSQ24MVJU | 41 11/16 | | | | | | | | | | |
| FXSQ30 - 36 - 48MVJU | 57 7/16 | | | | | | | | | | |

FXFQ 4-way ceiling-mounted cassette



Condensate Pump as standard



Outside air integration possible



Filter included

Silent. Elegant. Customizable. Low-maintenance.

From corner stores to offices, classrooms to hospital wards, our elegant ceiling-mounted cassette units provide low-noise, customizable comfort. Airflow can be sent in any of four directions, and the ability to shut down one or two sides allows for easy corner installation.

- Sound pressure levels are as low as 28dB(A)
- Space-saving depth of units requires only 9.4" of ceiling space
- Three auto-swing positions to choose from – standard, draft prevention and ceiling stain prevention
- Simple installation with an easy-to-fit decoration panel, easy height adjustment and a suction grille that can rotate up to 90°
- Easy-to-clean grille, washable long-life filter and optional high-efficiency filters
- Trouble-free condensate pump inside the unit
- Models range from 12,000 Btu/h to 36,000 Btu/h





FXFQ SPECIFICATIONS

| | | 1 Ton | 1.5 Ton | 2 Ton | 2.5 Ton | 3 Ton |
|-----------------------------------|------------|---------------------------------|------------|------------|------------|------------|
| Model Name | | FXFQ12MVJU | FXFQ18MVJU | FXFQ24MVJU | FXFQ30MVJU | FXFQ36MVJU |
| Power Supply | | 1ph 208–230V 60Hz | | | | |
| Cooling Capacity | Btu/h | 12,000 | 18,000 | 24,000 | 30,000 | 36,000 |
| Heating Capacity | Btu/h | 13,500 | 20,000 | 27,000 | 34,000 | 40,000 |
| Refrigerant | | R-410A | R-410A | R-410A | R-410A | R-410A |
| Refrigerant Control | | Electronic Expansion Valve | | | | |
| Airflow Rate H/L | cfm | 460 / 350 | 570 / 390 | 670 / 490 | 990 / 710 | 990 / 740 |
| Unit Weight | lbs. | 55 | 55 | 55 | 66 | 66 |
| Unit Height | in. | 9 1/8 | 9 1/8 | 9 1/8 | 11 3/8 | 11 3/8 |
| Unit Width | in. | 33 1/8 | 33 1/8 | 39 3/8 | 33 1/8 | 33 1/8 |
| Unit Depth | in. | 33 1/8 | 33 1/8 | 33 1/8 | 33 1/8 | 33 1/8 |
| Sound Pressure H/L | dB(A) | 31 / 28 | 33 / 28 | 34 / 29 | 38 / 32 | 40 / 33 |
| Unit Condensate Connection | in. O.D. | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| Condensate Pump Lift | in. | 21" | 21" | 21" | 21" | 21" |
| Pipe Connections | Gas in. | 1/2" Flare | 1/2" Flare | 5/8" Flare | 5/8" Flare | 5/8" Flare |
| | Liquid in. | 1/4" Flare | 1/4" Flare | 3/8" Flare | 3/8" Flare | 3/8" Flare |
| External Finish | | Galvanized Steel Plate | | | | |
| Protection Devices | | Fuse | | | | |
| | | Fan Motor Thermal Protector | | | | |
| Recommended Fuse/Breaker | A | 15 | 15 | 15 | 15 | 15 |
| Filter Type | | Resin Net (with Mold Resistant) | | | | |

Nominal Conditions:

Cooling Mode
 Indoor: 80 °F DB / 67 °F WB
 Outdoor: 95 °F DB
 Pipe Length: 25 ft.
 Level Difference: 0 ft.

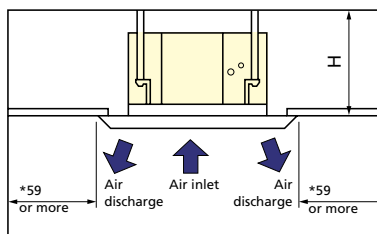
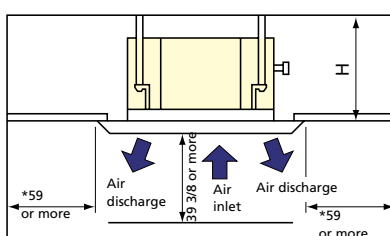
Heating Mode
 Indoor: 70 °F DB
 Outdoor: 47 °F DB / 43 °F WB
 Pipe Length: 25 ft.
 Level Difference: 0 ft.

Note:
 Specifications are subject to change without notice.

FXFQ ACCESSORIES

| | | | | | | |
|--|-----|-------------|-------------|-------------|-------------|-------------|
| Model Name | | FXFQ12MVJU | FXFQ18MVJU | FXFQ24MVJU | FXFQ30MVJU | FXFQ36MVJU |
| Wired Remote Controller | | BRC1D71 | BRC1D71 | BRC1D71 | BRC1D71 | BRC1D71 |
| Simplified Wired Remote Controller | | BRC2A71 | BRC2A71 | BRC2A71 | BRC2A71 | BRC2A71 |
| Wireless Remote Controller | | BRC7C812 | BRC7C812 | BRC7C812 | BRC7C812 | BRC7C812 |
| Remote Sensor Kit | | KRCS01-1 | KRCS01-1 | KRCS01-1 | KRCS01-1 | KRCS01-1 |
| Decoration Panel | | BYC125K-W1 | BYC125K-W1 | BYC125K-W1 | BYC125K-W1 | BYC125K-W1 |
| Wiring Adaptor PCB | | KRP1B72 | KRP1B72 | KRP1B72 | KRP1B72 | KRP1B72 |
| (interface with aux/primary heater, humidifier, OA damper/fan, etc.) | | | | | | |
| Group Control Adaptor PCB | | KRP4A73 | KRP4A73 | KRP4A73 | KRP4A73 | KRP4A73 |
| (connects to external BMS) | | | | | | |
| High-Efficiency Filter | 65% | KAFP556D80 | KAFP556D80 | KAFP556D80 | KAFP556D160 | KAFP556D160 |
| High-Efficiency Filter | 90% | KAFP557D80 | KAFP557D80 | KAFP557D80 | KAFP557D160 | KAFP557D160 |
| Replacement High-Efficiency Filter | 65% | KAFJ552K80 | KAFJ552K80 | KAFJ552K80 | KAFJ552K160 | KAFJ552K160 |
| Replacement High-Efficiency Filter | 90% | KAFJ553K80 | KAFJ553K80 | KAFJ553K80 | KAFJ553K160 | KAFJ553K160 |
| Filter Chamber | | KDDFP55D160 | KDDFP55D160 | KDDFP55D160 | KDDFP55D160 | KDDFP55D160 |
| Long-Life Replacement Filter | | KAFJ55K160H | KAFJ55K160H | KAFJ55K160H | KAFJ55K160H | KAFJ55K160H |
| Ultra Long-Life Filter | | KAFP55D160 | KAFP55D160 | KAFP55D160 | KAFP55D160 | KAFP55D160 |
| Sealing Member of Air Discharge Outlet | | KDBHJ55K160 | KDBHJ55K160 | KDBHJ55K160 | KDBHJ55K160 | KDBHJ55K160 |
| Panel Spacer | | KDBJ55K160W | KDBJ55K160W | KDBJ55K160W | KDBJ55K160W | KDBJ55K160W |

FXFQ INSTALLATION SPACE



| Model | H |
|----------------------|----------------|
| FXFQ12 - 18 · 24MVJU | 9 7/16 or more |
| FXFQ30 - 36MVJU | 11 3/4 or more |

(length: in.)

(NOTE) Leave 7 7/8 or more space where marked with the *, on sides where the air outlet is closed.



FXHQ ceiling- suspended unit



Filter included

Slim. Efficient. Quiet. Easy to Maintain.

With its slim, elegant design, the FXHQ ceiling-suspended unit is a great fit for any light commercial space. Wide air openings provide a comfortable airflow and a silent stream fan ensures quiet operation, making it ideal for retail stores, restaurants, classrooms and conference rooms.

- One of our slimmest indoor units (less than 8") fits any interior design
- Wide air discharge outlet distributes a comfortable airflow throughout the entire space
- Silent stream fan technology keeps sound pressure levels low
- Installation is fast and optional drain-up kit can be added easily
- Bristle-free, non-dew flap and flat design make cleaning simple
- Long-life filter (maintenance-free for up to one year) is standard
- Models range from 12,000 Btu/h to 36,000 Btu/h





| FXHQ SPECIFICATIONS | | 1 Ton | 2 Ton | 3 Ton |
|----------------------------|------------|---------------------------------|------------|------------|
| Model Name | | FXHQ12MVJU | FXHQ24MVJU | FXHQ36MVJU |
| Power Supply | | 1ph 208-230V 60Hz | | |
| Cooling Capacity | Btu/h | 12,000 | 24,000 | 36,000 |
| Heating Capacity | Btu/h | 13,500 | 27,000 | 40,000 |
| Refrigerant | | R-410A | R-410A | R-410A |
| Refrigerant Control | | Electronic Expansion Valve | | |
| Airflow Rate H/L | cfm | 360/430 | 830/990 | 890/1060 |
| Unit Weight | lbs. | 55 | 80 | 90 |
| Unit Height | in. | 7 11/16 | 7 11/16 | 7 11/16 |
| Unit Width | in. | 37 13/16 | 55 1/8 | 62 5/8 |
| Unit Depth | in. | 26 3/4 | 26 3/4 | 26 3/4 |
| Sound Pressure H/L | dB(A) | 38/33 | 44/36 | 46/41 |
| Unit Condensate Connection | in. O/D | 1 1/4" | 1 1/4" | 1 1/4" |
| Pipe Connections | Gas in. | 1/2" Flare | 5/8" Flare | 5/8" Flare |
| | Liquid in. | 1/4" Flare | 3/8" Flare | 3/8" Flare |
| External Finish | | White Casing | | |
| Protection Devices | | Fuse | | |
| Recommended Fuse/Breaker | A | 15 | 15 | 15 |
| Standard Filter Type | | Resin Net (with Mold Resistant) | | |

Nominal Conditions:

Cooling Mode

Indoor: 80 °F DB / 67 °F WB
 Outdoor: 95 °F DB
 Pipe Length: 25 ft.
 Level Difference: 0 ft.

Heating Mode

Indoor: 70 °F DB
 Outdoor: 47 °F DB / 43 °F WB
 Pipe Length: 25 ft.
 Level Difference: 0 ft.

Note:

Specifications are subject to change without notice.

| FXHQ ACCESSORIES | | | |
|----------------------------|------------|------------|------------|
| Model Name | FXHQ12MVJU | FXHQ24MVJU | FXHQ36MVJU |
| Wired Remote Controller | BRC1D71 | BRC1D71 | BRC1D71 |
| Wireless Remote Controller | BRC7E83 | BRC7E83 | BRC7E83 |
| Remote Sensor Kit | KRCS01-1 | KRCS01-1 | KRCS01-1 |



FXAQ wall- mounted unit



Filter included

Stylish. Compact. Convenient. Comfortable.

Our wall-mounted units are ideal for cooling or heating smaller zones such as hotel rooms, stores, computer rooms and restaurants. The compact, stylish design lets the unit blend discreetly into any interior design, and airflow can be sent in any of five different directions and programmed via remote control.

- Auto-swing mechanism ensures efficient air distribution via louvers that automatically close when the unit is turned off
- Wide air discharge outlet distributes a comfortable airflow throughout the entire space
- Horizontal louvers and front panel can be easily removed for cleaning
- Drainpipe can be easily hidden from sight
- Models range from 12,000 Btu/h to 24,000 Btu/h





| FXAQ SPECIFICATIONS | | 0.5 Ton | 0.75 Ton | 1 Ton | 1.5 Ton | 2 Ton |
|----------------------------|------------|---------------------------------|------------|------------|------------|------------|
| Model Name | | FXAQ07MVJU | FXAQ09MVJU | FXAQ12MVJU | FXAQ18MVJU | FXAQ24MVJU |
| Power Supply | | 1ph 208–230V 60Hz | | | | |
| Cooling Capacity | Btu/h | 7,500 | 9,500 | 12,000 | 18,000 | 24,000 |
| Heating Capacity | Btu/h | 8,500 | 10,500 | 13,500 | 20,000 | 27,000 |
| Refrigerant | | R-410A | R-410A | R-410A | R-410A | R-410A |
| Refrigerant Control | | Electronic Expansion Valve | | | | |
| Airflow Rate H/L | cfm | 260/160 | 280/175 | 300/180 | 500/400 | 635/470 |
| Unit Weight | lbs. | 25 | 25 | 25 | 32 | 32 |
| Unit Height | in. | 11 3/8 | 11 3/8 | 11 3/8 | 11 3/8 | 11 3/8 |
| Unit Width | in. | 31 1/4 | 31 1/4 | 31 1/4 | 41 3/8 | 41 3/8 |
| Unit Depth | in. | 9 | 9 | 9 | 9 | 9 |
| Sound Pressure H/L | dB(A) | 36/31 | 37/31 | 38/31 | 43/37 | 47/40 |
| Unit Condensate Connection | in. O.D. | 11/16" | 11/16" | 23/32" | 23/32" | 23/32" |
| Pipe Connections | Gas in. | 1/2" Flare | 1/2" Flare | 1/2" Flare | 1/2" Flare | 5/8" Flare |
| | Liquid in. | | | 1/4" Flare | 1/4" Flare | 3/8" Flare |
| External Finish | | White Casing | | | | |
| Protection Devices | | Fuse | | | | |
| | | Fan Motor Thermal Protector | | | | |
| Recommended Fuse/Breaker | A | 15 | 15 | 15 | 15 | 15 |
| Standard Filter Type | | Resin Net (with Mold Resistant) | | | | |

Nominal Conditions:

Cooling Mode
 Indoor: 80 °F DB / 67 °F WB
 Outdoor: 95 °F DB
 Pipe Length: 25 ft.
 Level Difference: 0 ft.

Heating Mode
 Indoor: 70 °F DB
 Outdoor: 47 °F DB / 43 °F WB
 Pipe Length: 25 ft.
 Level Difference: 0 ft.

Notes:
 a. Specifications are subject to change without notice.

FXAQ ACCESSORIES

| | | | |
|--|------------|------------|------------|
| Model Name | FXAQ12MVJU | FXAQ18MVJU | FXAQ24MVJU |
| Wired Remote Controller | BRC1D71 | BRC1D71 | BRC1D71 |
| Wireless Remote Controller | BRC7E818 | BRC7E818 | BRC7E818 |
| Remote Sensor Kit | KRCS01-1 | KRCS01-1 | KRCS01-1 |
| Wiring Adaptor PCB | KRP1B71 | KRP1B71 | KRP1B71 |
| (interface with aux/primary heater, humidifier, OA damper/fan, etc.) | | | |
| Group Control Adaptor PCB | KRP4A71 | KRP4A71 | KRP4A71 |
| (connects to external BMS) | | | |

FXAQ INSTALLATION SPACE

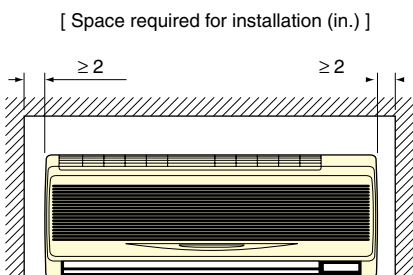


Fig. 1

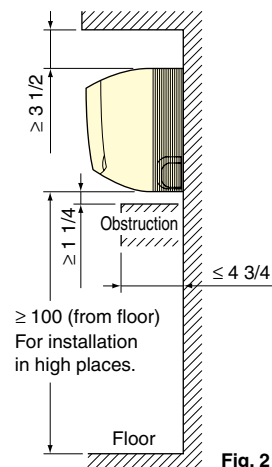


Fig. 2

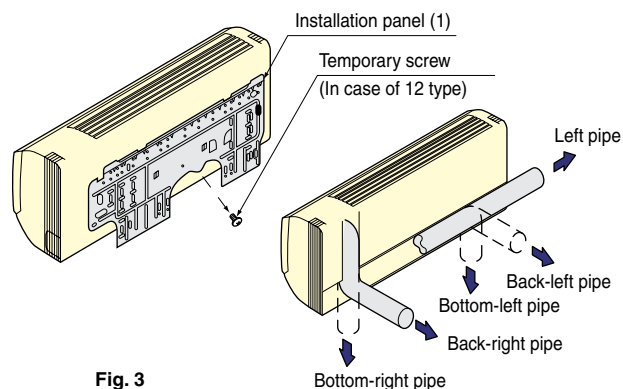


Fig. 3

FXLQ/FXNQ floor-standing units



Filter included



Outside air integration
possible



Filter included

Versatile. Logical. Durable. Quiet.

The ideal way to save space, our floor-standing units can easily be installed along a perimeter wall – or concealed. The air distribution from these models will allow you to find the right balance for classrooms, hospital rooms, office hallways or similar spaces.

- Ideal for installation beneath a window
- Unit requires minimal installation space
- Fitted with a washable long-life filter
- Remote-control options available
- Space-saving unit can be freestanding or wall-mounted, concealed or exposed
- Models range from 12,000 Btu/h to 24,000 Btu/h





| FXLQ/FXNQ SPECIFICATIONS 1 Ton | | | | 1.5 Ton | 2 Ton | 1 Ton | 1.5 Ton | 2 Ton |
|-----------------------------------|------------|---------------------------------|------------|------------|-------|---------------------------------|------------|------------|
| Model Name | | FXLQ12MVJU | FXLQ18MVJU | FXLQ24MVJU | | FXNQ12MVJU | FXNQ18MVJU | FXNQ24MVJU |
| Power Supply | | 1ph 208–230V 60Hz | | | | 1ph 208–230V 60Hz | | |
| Cooling Capacity | Btu/h | 12,000 | 18,000 | 24,000 | | 12,000 | 18,000 | 24,000 |
| Heating Capacity | Btu/h | 13,500 | 20,000 | 27,000 | | 13,500 | 20,000 | 27,000 |
| Refrigerant | | R-410A | R-410A | R-410A | | R-410A | R-410A | R-410A |
| Refrigerant Control | | Electronic Expansion Valve | | | | Electronic Expansion Valve | | |
| Airflow Rate H/L | cfm | 280/210 | 490/380 | 560/420 | | 280/210 | 490/380 | 560/420 |
| Unit Weight | lbs. | 66 | 80 | 80 | | 51 | 61 | 61 |
| Unit Height | in. | 23 5/8 | 23 5/8 | 23 5/8 | | 24 | 24 | 24 |
| Unit Width | in. | 44 7/8 | 55 7/8 | 55 7/8 | | 42 1/8 | 53 1/8 | 53 1/8 |
| Unit Depth | in. | 8 3/4 | 8 3/4 | 8 3/4 | | 8 5/8 | 8 5/8 | 8 5/8 |
| Sound Pressure H/L | dB(A) | 36/33 | 40/35 | 41/36 | | 36/33 | 40/35 | 41/36 |
| Unit Condensate Connection | | in.O.D. 53/64" | 53/64" | 53/64" | | 53/64" | 53/64" | 53/64" |
| Pipe Connections | Gas in. | 1/2" Flare | 1/2" Flare | 5/8" Flare | | 1/2" Flare | 1/2" Flare | 5/8" Flare |
| | Liquid in. | 1/4" Flare | 1/4" Flare | 3/8" Flare | | 1/4" Flare | 1/4" Flare | 3/8" Flare |
| External Finish | | Ivory White Casing | | | | Galvanized Steel Plates | | |
| Protection Devices | | Fuse | | | | Fuse | | |
| | | Fan Motor Thermal Protector | | | | Fan Motor Thermal Protector | | |
| Recommended Fuse/Breaker | A | 15 | 15 | 15 | | 15 | 15 | 15 |
| Standard Filter Type | | Resin Net (With Mold Resistant) | | | | Resin Net (With Mold Resistant) | | |

Nominal Conditions:

Cooling Mode
 Indoor: 80 °F DB / 67 °F WB
 Outdoor: 95 °F DB
 Pipe Length: 25 ft.
 Level Difference: 0 ft.

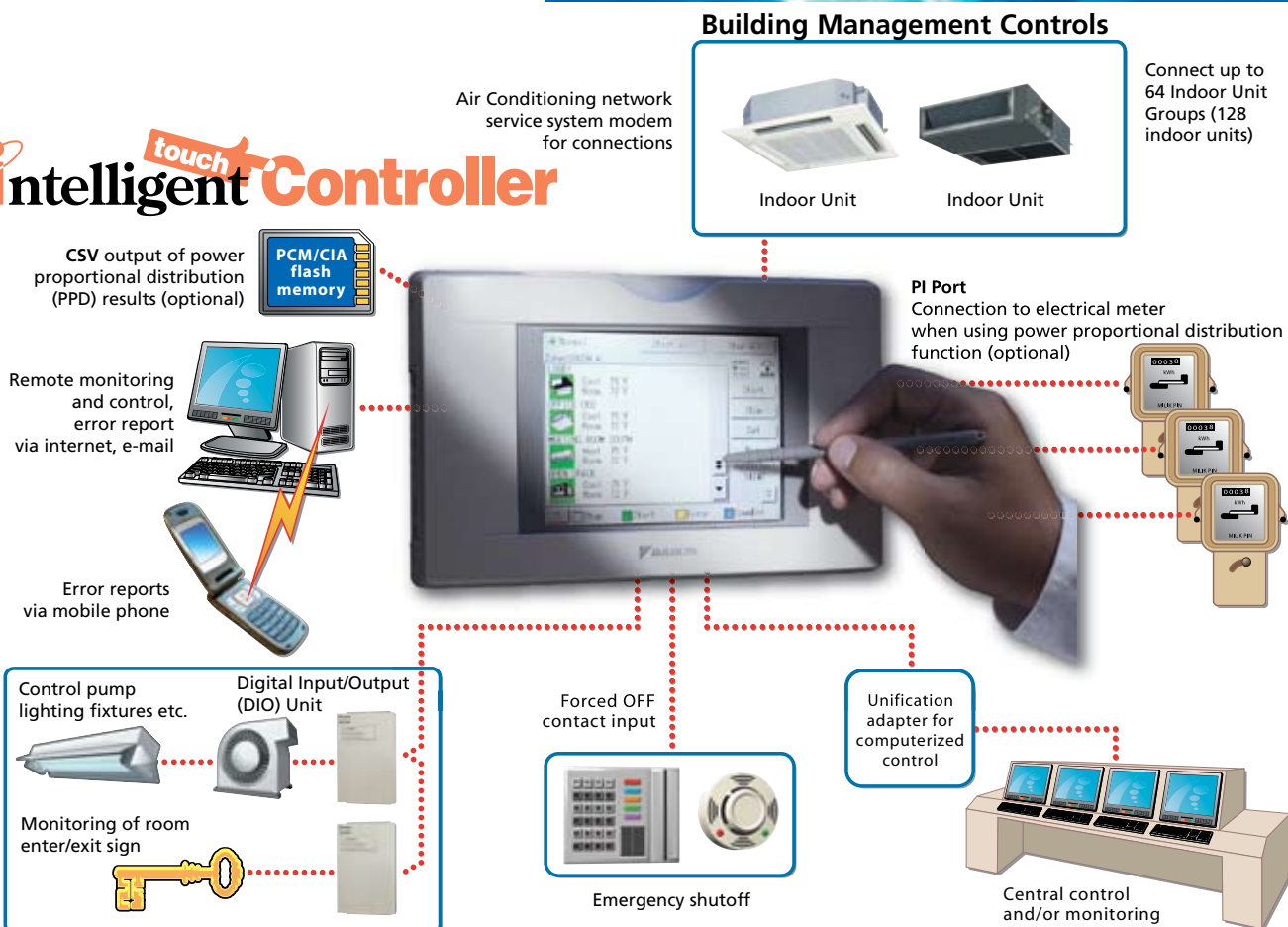
Heating Mode
 Indoor: 70 °F DB
 Outdoor: 47 °F DB / 43 °F WB
 Pipe Length: 25 ft.
 Level Difference: 0 ft.

Notes:

- a. Specifications are subject to change without notice.
 b. Data not available at time of press.

| FXLQ/FXNQ ACCESSORIES | | | | | | |
|--|------------|------------|------------|------------|------------|------------|
| Model Name | FXLQ12MVJU | FXLQ18MVJU | FXLQ24MVJU | FXNQ12MVJU | FXNQ18MVJU | FXNQ24MVJU |
| Wired Remote Controller | BRC1D71 | BRC1D71 | BRC1D71 | BRC1D71 | BRC1D71 | BRC1D71 |
| Simplified Wired Remote Controller | BRC2A71 | BRC2A71 | BRC2A71 | BRC2A71 | BRC2A71 | BRC2A71 |
| Wireless Remote Controller | BRC4C82 | BRC4C82 | BRC4C82 | BRC4C82 | BRC4C82 | BRC4C82 |
| Remote Sensor Kit | KRCS01-1 | KRCS01-1 | KRCS01-1 | KRCS01-1 | KRCS01-1 | KRCS01-1 |
| Wiring Adaptor PCB | KRP1B71 | KRP1B71 | KRP1B71 | KRP1B71 | KRP1B71 | KRP1B71 |
| (interface with aux/primary heater, humidifier, OA damper/fan, etc.) | | | | | | |
| Group Control Adaptor PCB | KRP4A71 | KRP4A71 | KRP4A71 | KRP4A71 | KRP4A71 | KRP4A71 |
| (connects to external BMS) | | | | | | |

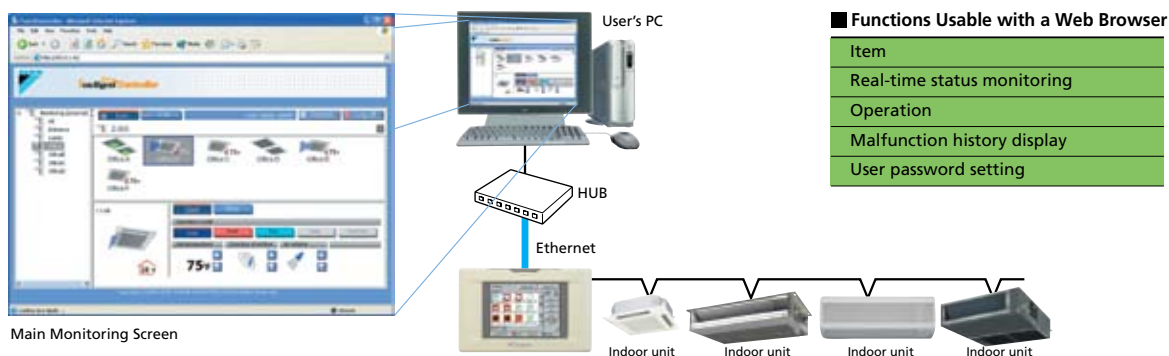
Intelligent touch Controller



A controller that offers freedom to administrators.

It is possible to control the air-conditioning system, via the Internet, from home or any other location with a PC. Should a malfunction occur, a notification is sent by e-mail to a cell phone or PC (any e-mail address specified by the user). This gives administrators the freedom to leave the room/building where the controller is located.

Control and management are possible via a standard Web browser (Internet Explorer 6.0SP1 or more in a Windows environment (PC)).









Notes

1. Microsoft Internet Explorer 6.0 SP1, or a later version, is the recommended Web browser for use with the system.
2. The J2SE V1.4.2 Java plug-in from Sun Microsystems is required.

The Power Proportional Distribution (PPD) feature supplies the user with a reasonably calculated apportionment of the total power consumption by the Daikin air-conditioning system to individual units on the system. Because input to the PPD includes measured pulses in the refrigerant system and because the air-conditioning system includes a number of variables, including operating temperatures and pressures, piping length, heat exchange rates and others, no meter-type apportionment of individual users' consumption can be made. However, the PPD feature provides an apportionment methodology that uses highly advanced technology as applied to the many variables in an air-conditioning system.



comparison chart

| | | Individual Zone Controllers | | | Multi-Zone Controllers | | Time Clock Controllers |
|---------------------------|---------------------------------|---|---|---|--|---|---|
| | | 7-Day Programmable Wired R/C BRC1D71 | Simplified Wired R/C BRC2A71 | Wireless R/C BRC7C812 BRC7E83 BRC4C82 BRC7E818 | Unified On/Off R/C DSC301C71 | Centralized R/C DSC302C71 | Schedule DST301B61 |
| Model | |  |  |  |  |  |  |
| No. of Units Controllable | | ← 1 Group/16 Units → | | | 16 Groups | 64 Groups | 128 Groups |
| Operation | Start/Stop | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | Operate Mode | ✓ | ✓ | ✓ | | ✓ | |
| | Temperature Setting | ✓ | ✓ | ✓ | | ✓ | |
| | Set-Point Range | 60°-90°F | 60°-90°F | 60°-90°F | | 60°-90°F | |
| | Permit/Prohibit Selection | ✓ | | | ✓ | ✓ | ✓ |
| | Fan Speed | ✓ | ✓ | ✓ | | ✓ | |
| Monitoring | Airflow Direction | ✓ | ✓ | ✓ | | ✓ | |
| | Status | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | Malfunction Flashing | ✓ | ✓ | ✓ | ✓ | ✓ | |
| | Malfunction Content | ✓ | ✓ | ✓ | | ✓ | |
| | Filter Sign | ✓ | | | | ✓ | |
| | Operation Mode | ✓ | ✓ | ✓ | | ✓ | |
| Scheduling | Temperature Setting | ✓ | ✓ | ✓ | | ✓ | |
| | Permit/Prohibit Selection | ✓ | ✓ | | ✓ | | |
| | Fan Speed | ✓ | ✓ | ✓ | | ✓ | |
| | Airflow Direction | ✓ | | ✓ | | ✓ | |
| Data | Weekly | | | | | | ✓ |
| | Timed Starts/Stops Per Day | | | | | | 2 |
| | No. of Weekly Schedules | | | | | 8 | |
| | Auto ON/OFF Timer | ✓ | | ✓ | | | |
| Control Management | Error History | | | | | ✓ | |
| | Field Setting Mode | ✓ | ✓ | ✓ | | ✓ | |
| | Group Setting | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7-Day Time Clock | ✓ | | | | | ✓ |
| | 5-Temperature Setpoints Per Day | ✓ | | | | | |
| | Minimum Night Setting | ✓ | | | | | |
| | Maximum Day Setting | ✓ | | | | | |
| | Night Set-Back Function | ✓ | | | | | |
| | Home Leave Function | ✓ | | | | | |
| | Auto Restart | ✓ | ✓ | | | ✓ | ✓ |

LONWORKS® NETWORKS COMPATIBLE GATEWAY

- Interface for on to LONWORKS® networks
- Communication via LON® protocol (twisted pair wire)
- 64 units connectable per DMS-IF
- Unlimited site size
- Quick, easy installation



INTEGRATED CONTROL SYSTEM CONNECTING VRV SYSTEM WITH BMS SYSTEM

- Interface for BMS system
- Communication via BACnet® protocol (connection via ethernet)
- 256 units connectable per BACnet® gateway
- Unlimited site size
- Quick, easy installation

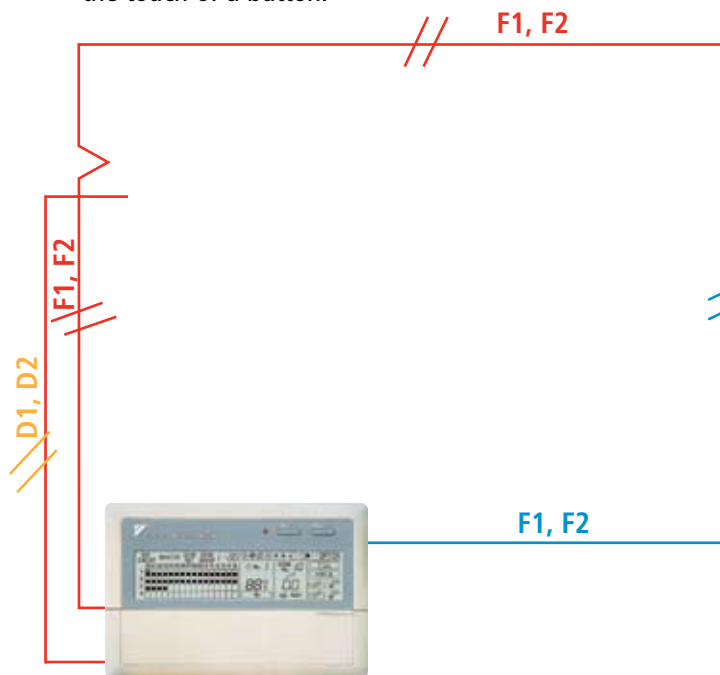


controllers

(without using Intelligent Touch controllers)

**Sleek. Compact. User-friendly.
Super-intelligent.**

With Daikin's super-intelligent, user-friendly system controllers, you can create Absolute Comfort quickly and easily. Their advanced functionality and easy-to-read Liquid Crystal Displays (LCDs) allow you to orchestrate and monitor: mode, temperature, time, airflow volume and more across your entire system at the touch of a button.



DCS302C71 – CENTRALIZED REMOTE CONTROL

Providing individual control of 64 groups (zones) of indoor units

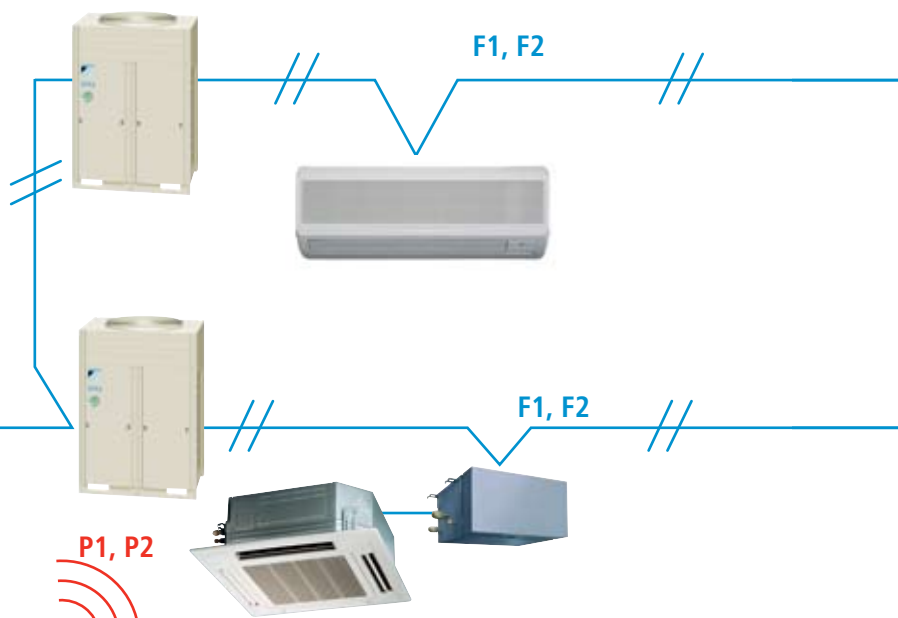
- A maximum of 64 groups (128 indoor units, max. 10 outdoor units) can be controlled
- A maximum of 128 groups (128 indoor units, max. 10 outdoor units) can be controlled via two centralized remote controls in separate locations
- Zone control
- Malfunction code display
- A maximum wiring distance between units of 3,280 ft.
- A maximum wiring length of 6,560 ft. (including all connections)

DCS301C71 – UNIFIED ON/OFF CONTROL



Providing simultaneous and individual control of 16 groups of indoor units

- A maximum of 16 groups (128 indoor units) can be controlled
- Two remote controls in separate locations can be used
- Operating status indication (normal operation, alarm)
- Centralized control indication
- A maximum wiring distance between units of 3,280 ft.
- A maximum wiring length of 6,560 ft. (including all connections)



BRC4C/BRC7C/BRC7E – WIRELESS REMOTE CONTROL

Operation Buttons:

- | | |
|---|------------------------------|
| • ON/OFF | • Operating mode |
| • Timer mode start/stop | • Fan speed control |
| • Timer mode on/off | • Filter sign reset |
| • Program time | • Inspection/test indication |
| • Temperature setting | |
| • Airflow direction (FXFQ and FXAQ models only) | |



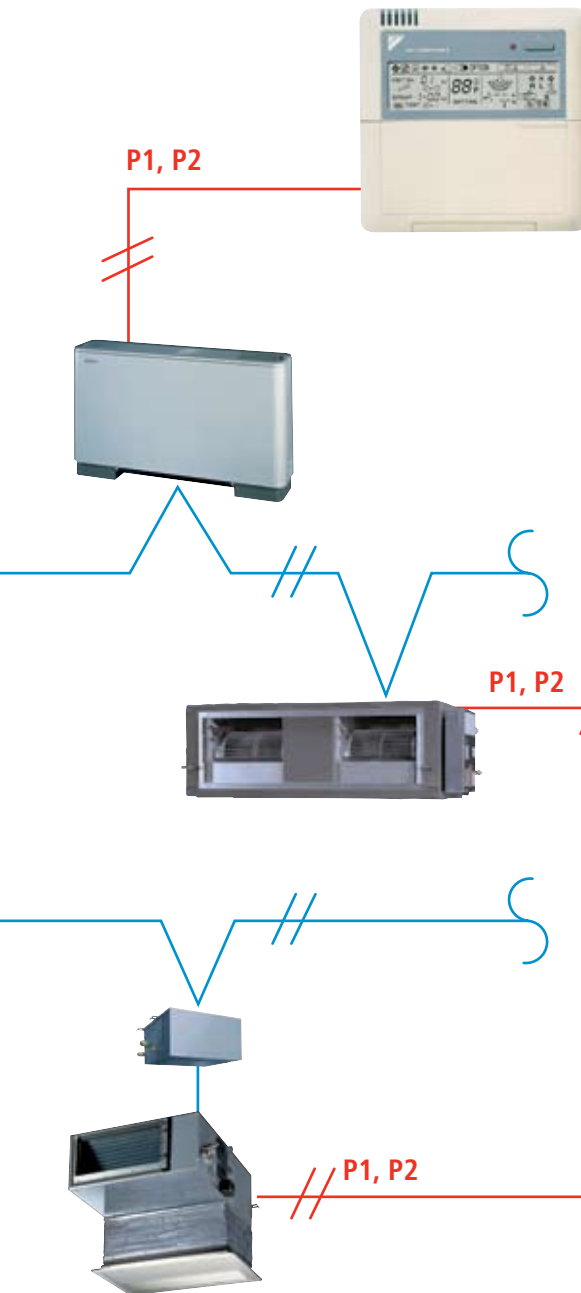


BRC1D71 – WIRED REMOTE CONTROL 7-DAY PROGRAMABLE

- Constantly monitors the system for malfunctions in a total of 80 components
- Immediate display of fault location and condition

Operation Buttons:

- ON/OFF
- Timer mode start/stop
- Timer mode on/off
- Temperature setting
- Airflow direction adjustment
- Operating mode selection
- Fan speed control
- Filter sign reset
- Inspection test/operation
- 7 day time clock



BRC2A71 – SIMPLIFIED WIRED REMOTE CONTROL

- Simple, compact and easy-to-operate unit
- Suitable for use in hotel bedrooms

Operation Buttons:

- ON/OFF
- Operating mode selection
- Fan speed control
- Temperature setting



BRC1D71 – WIRED REMOTE CONTROL 7-DAY PROGRAMABLE

(See details for Wired Remote Control above.)



Note: Units are not to scale. Please see product specifications for dimensions.



WARNINGS:

- Always use a licensed installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a licensed contractor to install those parts and accessories. Use of unauthorized parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the User's Manual carefully before using this product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

For any inquiries, contact your local Daikin sales office.



© 2007 Daikin Industries, Limited.

Daikin® Daikin AC Absolute Comfort®, and its design, VRV® and REFNET™ are trademarks pending or registered trademarks of Daikin Industries, Limited. All rights reserved. LonWorks® and LON® are registered trademarks of Echelon Corporation. BACnet® is a Data Communication Protocol for Building Automation and Control Networks, developed under the auspices of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).



The air conditioners manufactured by Daikin Industries have received **ISO 9000 series** certification for quality assurance.

Certificate Numbers:
(ISO9001) JMI-0107 (ISO9002) JQA-1452
JQA-0495



All Daikin Industries locations and subsidiaries in Japan have received environmental management system standard **ISO 14001** certification.

Daikin Industries, Ltd.
Domestic Group
Certificate Number: EC99J2044

About ISO 14001

ISO 14001 is the standard defined by the International Organization for Standardization (ISO) relating to environmental management systems. Our group has been acknowledged by an internationally accredited compliance organization as having an appropriate program of environmental protection procedures and activities to meet the requirements of ISO 14001.

Dealer Information

Daikin AC (Americas), Inc.
1645 Wallace Drive, Suite 110
Carrollton, TX 75006
www.daikinac.com
info@daikinac.com
866-4DAIKIN

PCVUSE07-04C

Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this brochure without notice and without incurring any obligations.