Daikin’s VRVIII system is the 7th generation of the original Daikin VRV® launched in 1982. Completely re-engineered to realize opportunities for VRV in taller / larger buildings, it utilizes the latest advances in refrigeration and air-conditioning technology. The totally new Daikin Inverter compressor system delivers improved efficiency and performance, while ensuring satisfaction of demands throughout the connected zones. With a choice of 460V/3ph/60Hz or 208-230V/3ph/60Hz, the heat pump or heat recovery configurations power up to 20-Ton capacity from a single piping network. The system also allows up to 41 indoor fan coil units, a 200% connection index, and integrated controls, with BMS options and piping limitations never before seen with a DX system. With these attributes, VRVIII naturally positions itself wherever traditional chilled water systems are desired.
VRV® III Features and Benefits

Commercial sites can range in size from a few hundred to several thousand square feet. That’s why Daikin offers the new VRVIII air-cooled system with advanced features to meet practically any challenge. Completely re-engineered to realize opportunities for VRV in taller / larger buildings, it utilizes the latest advances in refrigeration and air-conditioning technology.

- Available up to 20-Ton in one system, 208-230V/60Hz/3ph or 460V/60Hz/3ph
- Heat pump (heating and cooling) and heat recovery (simultaneous heating and cooling across multiple zones) systems available
- Individual zone control
- Can operate up to 41 indoor fan coil units
- Auto charging function
- Continuous heating during defrost operation
- Longest pipe lengths in product class
- Advanced zoning capabilities
- Excellent energy efficiency, especially at part load conditions
- Daikin’s optimized scroll compressor designed for R-410A provides a quiet, reliable energy-efficient operation
- Anticorrosion treatment standard on exterior metal parts and heat exchanger
- Fully compatible with the complete Daikin control suite including Intelligent Touch Controller, Intelligent Manager III, and LonWorks® and BACnet® gateways

It is widely used worldwide in applications such as:
- Health care
- Hotels and conference facilities
- Offices
- Residential multi-family
- Restaurants
- Retail stores
- Schools

VRVIII is available in heat pump and heat recovery versions where heating and cooling can be made available simultaneously across multiple zones.
VRV is a commercially applied heating and cooling system that distributes refrigerant, rather than water, to multiple fan coil units serving the conditioned spaces. The natural attributes of a VRV system position it as an alternative to a chiller system.

**The Features of VRV**
- Energy efficient, all systems incorporate inverter “variable speed” compressors
- Many zones (individual control - up to 41 zones on one piping network)
- Centralized system (long piping - up to 3,280 ft. total)
- Tight temperature control (Proportional Integral Derivative)
- Large capacity (modular systems combination)
- Quiet operation (down to 25dB(A) indoor)
- High level control (BACnet, LonWORKS, Intelligent Manager, Intelligent Touch Controller)
- Superior heating performance
- Absolute Comfort

**Why Refrigerant?**
The commonly used methods of heat transfer in air-conditioning solutions each exercise different operational characteristics regarding adding or removing heat energy to a conditioned space.

This diagram represents the energy transfer possible per pound of media due to the performance characteristic of the fluid used.

**Why is VRV an efficient alternative?**
The heating and cooling system in a commercial building is used at 70% or less of its maximum capacity for 75% of the operational time.

**VRV offers ease of design and installation**

<table>
<thead>
<tr>
<th>Complicated System</th>
<th>Chilled water central plant layout with boiler</th>
<th>Simple System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Floor</td>
<td>Pump, Cooling Tower, Water Pipe, Chiller, Boiler</td>
<td>Top Floor Condensing Unit</td>
</tr>
<tr>
<td>Building Floors</td>
<td>And also ... EXP Tank, Valves, Header</td>
<td>Building Floors Refrigerant Piping</td>
</tr>
<tr>
<td>Machine Room</td>
<td></td>
<td>Machine Room Fan Coil Units</td>
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<tr>
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<td></td>
<td>Not needed</td>
</tr>
</tbody>
</table>

**Diagram Description**
- Part Load Performance VRV graph showing EEU at different loads with a peak at 70% load.
- Comparison of energy transfer for AIR (0.14 watts/lb), WATER (2.6 watts/lb), and REFRIGERANT (25 watts/lb).
VRVIII opens up opportunities in larger, more complex buildings

Daikin is using the latest and most revolutionary technologies in the development of the VRVIII system for large-sized buildings. The system offers greater energy savings, easier installation, longer actual and total piping length, and more.

**DC fan motor**
- Across entire range of models (from 6 to 20-Ton).
- Efficiency improvement by approximately 40% especially at low speed.

**Heat exchanger**
The new heat exchanger contributes to a high EER and COP because of an increase from 7% to 10% of the effective length as well as an optimized e-Pass heat exchanger.

**Smooth sine wave DC Inverter**
By adoption of the Sine Wave Inverter, which smoothes the rotation of the motor, operation efficiency is improved sharply.

**Improving the high efficiency compressor to achieve a high EER and COP**

**Reluctance DC scroll compressor**
Daikin’s unique scroll compressor minimizes heat loss and is driven by a high efficiency motor to achieve significant energy savings.

High torque and efficiency is attained with the use of neodymium magnets. Achieves 70% reduction in volume.

The secret to raising energy efficiency - Powerful magnets!

Neodymium magnets are much more powerful than the widely used ferrite magnets.

**Did you know?**
Daikin is the only company in the world dedicated to manufacturing heating and cooling units, compressors and refrigerant. All Daikin systems in North America employ “variable speed” compressors and non-ozone depletion potential R-410A refrigerant, which optimize energy conservation.
VRVIII

Extended Operation Range
Advanced Proportional Integral Derivative (PID) control of the outdoor unit enables the VRVIII series to operate at outdoor ambient conditions down to 23°F in cooling mode and down to -4°F in heating mode. A new Low Ambient Cooling feature allows the VRVIII heat recovery systems to operate as low as -4°F in cooling mode as well.

Daikin is the only VRF manufacturer to provide capacity tables up to 122°F for high ambient design applications. The cooling is guaranteed at those temperatures. However, both efficiency and cooling output will start dropping over 110°F.

Long Refrigerant Piping Lengths

<table>
<thead>
<tr>
<th>Refrigerant piping specifications</th>
<th>Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear piping between condensing unit and furthest located fan coil unit (equivalent)</td>
<td>540 (620)</td>
</tr>
<tr>
<td>Total &quot;one-way&quot; piping in the complete piping network</td>
<td>3,280</td>
</tr>
<tr>
<td>Vertical (height) separation between the condensing unit and the fan coil units (if outdoor unit is below)</td>
<td>164&quot; (295)</td>
</tr>
<tr>
<td>Vertical (height) separation between fan coil units</td>
<td>49</td>
</tr>
<tr>
<td>Linear piping between 1st REFNET and furthest located fan coil unit</td>
<td>295</td>
</tr>
</tbody>
</table>

*295ft. if outdoor unit is above and accessory PCB is installed

External Static Pressure (ESP)
The additional ESP (up to 0.32” W.G.) provides far more flexibility when designing condensing units in plant room applications. No additional components are required to extend the fan performance.

It is now even easier to put a condensing unit on each floor or in a mechanical room and duct out the discharge air.
VRVIII Benefits in Heating

Advanced Defrost Cycle Operation in Heating

Superior Heating Comfort
Thanks to the newly adopted continuous heating during defrost function, cold draft discharge from the indoor unit during defrost is eliminated. Therefore, heating comfort is improved and better maintained.

Heating Operation While on Defrost Operation
The first graph below shows the defrost cycle on the previous model where it uses a reverse cycle defrost of 10 to 14 minutes and then has to perform a hot start. With VRVIII the outdoor unit continues in heating and the fans will switch to LL (Low Low). Defrost lasts for 8 to 12 minutes and because heating operation has continued, no hot start is required.

Continuous heating during oil return
When the previous model is in heating mode to perform an oil recovery cycle (two hours after initial start up and every eight hours thereafter), the system must change to cooling. With the improvements to VRVIII outdoor unit and branch selector unit, the system continues in the heating mode during the full oil recovery cycle. Daikin is the only VRF manufacturer that is capable of continuous heating during oil return.

Heating while on defrost
- The new VRVIII allows continuous heating during defrost
- Approximately 30% or more capacity can be produced with no hot start required
- All other VRF systems require the system to switch to cooling then a hot start to preheat the indoor unit before resuming operation
- This causes a disruption to the heating and space temperature

Oil return operation in Heating
Previous Model: Change to cooling operation.
VRVIII: Heating operation continues.

Each heat exchanger is defrosted by using heat transferred from one heat exchanger to the other in the outdoor unit.
VRVIII Heat Recovery

**Offers simultaneous cooling and heating operation on the same piping network**

**Branch Selector Unit**
By adding high pressure/low pressure gas piping and a branch selector unit (sold separately), simultaneous heating and cooling operation can be provided by a single system.

The example below shows two 6-Ton heat pump systems, one operating in full cooling (6 Tons) and one operating in full heating (6 Tons), the power inputs were 5.74kW and 6.83kW respectively, giving a total of 12.57kW. When looking at the same example with a heat recovery system, with 50% of the capacity operating in full cooling (6 Tons) and 50% operating in full heating (6 Tons), the power input for the system can be as low as 5.31kW, this would mean about half reduction in power input.

**Heat Pump**
- Cooling
- Heating

**Heat Recovery**
- Cooling
- Heating

**Indoor Temperature:**
- 67 °F WB (cooling)
- 70 °F DB (heating)

**Outdoor Temperature:**
- 95 °F WB (cooling)
- 47 °F DB (heating)

**Power Input**
- **Cooling** 5.74kW
- **Heating** 6.83kW (22,519 Btu)

**Approximately 50% Reduction**

**Simultaneous cooling and heating**
- 5.31kW
The new branch selector unit (BSVQ_P) has improved the cooling/heating changeover, oil recovery cycle and sound level by utilizing expansion valves in place of the 3-way valve and solenoid subcooling valve found in the previous model.

In the new branch selector unit there is a main and sub expansion valve for the high/low pressure gas pipe, the suction gas pipe and one for the subcooling circuit.

- Improvement of the cooling/heating changeover
- Continuous operation during oil recovery
- Sound level reduction of branch selector unit

**No system interruption in mode changeover**

With most VRF systems, when changing an indoor unit from cooling to heating, the heating operation for the full system is shut down. The system pressure must equalize in the hot gas line, which causes disruption to all units in heating. The heating is then started for the full system and each indoor unit has to go through a hot start (the indoor unit coil has to be at approximately 93°F) before the fan starts to avoid cold drafts. This sequence of operation can take approximately 10 minutes.

With the new branch selector unit (BSVQ_P), only the indoor units changing from cooling to heating will shut down and only those will go through a hot start causing no system disruption and only six minutes of downtime for the indoor unit changing operation mode.

The changeover time can be shortened depending on the pipe length from the branch selector unit to indoor unit by simply reprogramming the indoor unit (range 3-10 minutes).

**The Daikin Difference**

In most VRF systems, the heating mode for the full system has to allow the high pressure in the hot gas line to equalize before heating is started. There then has to be at least 44 psi difference between gas and suction to have enough force to switch the 3-way valve which could cause refrigerant noise.

The new branch selector unit has dual expansion valves on both suction and high/low pressure gas pipes in place of the 3-way valve in the previous model. This allows the pressure from the branch selector unit to indoor unit to slowly equalize by opening the sub expansion valve on high/low pressure pipe closing all other valves in the branch selector unit before full heating operation begins for that indoor unit.

This eliminates the need to stop the heating mode in the full system and reduces sound level. Also, the solenoid valve and capillary tube supply to the liquid sub-cool heat-exchanger is replaced by an expansion valve to eliminate the switching sound of the solenoid valve, and also to enable some control of the amount of refrigerant to flow through the sub-cool heat-exchanger.
Benefits of Daikin VRVIII using 3-pipe configuration in its heat recovery version

Daikin’s VRV heat recovery uses a dedicated hot gas pipe during heating operation allowing for higher off coil temperatures, even at lower ambient conditions, thus increasing the heating capacity of the system. Compared to a 2-pipe heat recovery system using a liquid/gas mixture line, the Daikin system eliminates the friction occurring between pure gas and pure liquid when used in the same pipe. Also, the 2-pipe heat recovery systems have a lower hot gas temperature which can result in a lack of heating capacity and off coil temperatures.

**Daikin’s layout example:** The Daikin 3-pipe system allows for installation of smaller, easily hidden branch selector units facilitating installation in remote spaces.

**Other VRF layout examples:** 2-pipe systems usually require a bulky branch controller box needing a drain connection.

As shown above, using a 2-pipe heat recovery system results in an increase of about 20% additional piping and insulation in best case scenario, augmenting both cost of supplies and labor. Moreover, the Daikin VRV system ensures an easier compliance with local and national refrigerant safety standards such as ASHRAE Standard 15.
VRVIII’s Outstanding performance in cooling and heating

Cooling
Widely acknowledged as the most advanced system of its type in the market, VRV represents a powerful combination of advanced inverter, heat pump and control technologies. When cooling a space, the system can operate at full load EER levels as high as 12.2 (6-Ton heat pump) and 12.6 (6-Ton heat recovery). However, the system can operate at much higher EER levels during part load operation.

Buildings are made up of many individual zones which can have varying heating and cooling requirements. It is more efficient to cool or heat an individual space as needed than to condition all of the space throughout the building, all of the time. VRV systems have the ability to control the amount of refrigerant flowing to each of the indoor units, enabling the use of up to 41 indoor units with differing capacities and styles, providing individualized comfort control, simultaneous heating and cooling in different zones and heat recovery from one zone to another.

Based on a simulation developed by Daikin’s proprietary tool, EnergyCalc, the graphic below charts an EER curve and the cooling demand of a building over the time period of one year. Analysis of the building’s annual cooling demand shows the required cooling capacity is below 70% of the maximum design capacity 75% of the time. With Daikin, building owners save energy by not paying to heat or cool an empty or unused space.

VRV performance and energy use are highly application-dependent and should be obtained from detailed analysis.

For example 1, the graphic shows that over the course of one full operational year, the building’s VRV system analyzed operates for 223 hours at 70% of its maximum capacity (thus being at part load operation). Under this specific operational condition, the Daikin VRV has an EER of 16 in this example.

Heating
Comparing a VRVIII and its competition at full load in heating, the VRVIII 6-Ton heat recovery is 4% more efficient.

VRVIII has also more capacity in heating during low ambient operation compared to standard VRF systems. At temperatures of -4°FWB, VRVIII has more heating capacity than equivalent VRF systems by 16% and 23% respectively.
**Reduced factory charge**

The factory refrigerant charge has been reduced for all outdoor units by up to 34% compared to previous VRV models. This allows for easier application to satisfy local and national safety standards such as ASHRAE standard 15.

The reduction in the factory charge puts Daikin at up to 10% less factory refrigerant charge than our VRF competitors, an excellent advantage to engineers when it comes to satisfying local and national safety standards.

**Environmental consciousness**

The fusible plugs used in older systems as the pressure relief device in the liquid receiver have been replaced with pressure relief valves. Now instead of releasing the refrigerant to the atmosphere, it is relieved to the low pressure side of the system, a far more environmentally conscious solution (The safety valve is activated if the pressure exceeds 570psi).

**Environmental consciousness**

When only one of the outdoor unit modules is operating due to low load, refrigerant is bypassed to the other outdoor unit through the pressure equalizing pipe. By utilizing both heat exchangers part load energy efficiency is improved.

To minimize the chance of leaks, the piping connections inside the outdoor unit are all brazed. Also, the flared connections were changed to brazed connections on liquid and gas shutoff valves.
Backup Functions

In order to make operation time equal for each compressor in a manifolded system, the outdoor units are used in rotation. The operation priority starts once the following conditions have been met:

- On completion of oil recovery cycle
- On completion of defrost
- Upon restart once a system has stopped

The cyclical start-up sequence of multiple outdoor unit systems equalize compressor duty and extends operating life.

**Back up – redundancy**

Should a fault occur on a compressor, the system can be set into “emergency” mode. This will allow the system to operate at partial capacity for a period of 24 hours until the problem can be rectified.

**Manual Back Up Single Module**

If the system is set to “emergency inverter compressor” operation, the standard compressor will operate at the index of the indoor units in thermostat-on at a minimum 50% of the connected ratio.

<table>
<thead>
<tr>
<th>10-Ton System</th>
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</thead>
<tbody>
<tr>
<td>Compressor</td>
</tr>
<tr>
<td>INVERTER Alarm</td>
</tr>
<tr>
<td>STANDARD Alarm</td>
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</tbody>
</table>

**16-Ton System**

| No. 1 Unit | No.2 Unit | Capacity (approx.) |
|----------------|
| INV | STD 1 | |
| INVERTER Alarm | Trouble | Stop | Operate | 50% |
| STANDARD 1 Alarm | Stop | Trouble | Operate | 50% |

**Auto or Manual Back Up of Manifolded Systems**

In case of compressor trouble in a manifolded system, it is required to disable the entire module with the malfunction. It is not possible to disable only one compressor and leave the other compressor running in that module. This is due to oil balancing within the system. The “emergency mode” in a manifolded system can be set to manual or automatic via a field code.

The automatic mode is achieved by pressing the on/off button for four seconds once the compressor malfunction code has been activated. This allows the end user (if desired) to reset the system and run on 50% of heating/cooling until a service technician arrives.
Installation & Maintenance

Friendly Design

**Automatic Charge Function**

**Conventional Way:**
1. Calculation of additional refrigerant charging volume
2. Charging the unit with additional refrigerant
3. Measuring the weight of the cylinder
4. Judgment based on pressure (test operation)

**VRVIII**

With VRVIII however, these four steps are omitted since the VRVIII unit can be charged with the necessary amount of refrigerant automatically via a push button on the PCB. Automatic charging will cease once the appropriate amount of refrigerant has been transferred.

If temperature drops below 32°F outdoors, manual charging is necessary. After having switched to heating and once the indoor temperature rises above 32°F, push the auto charge button to activate auto charge function.

**Automatic Test - Simplified Commissioning**

When refrigerant charging has ceased, pushing the test operation button on the PCB will initiate a check on the wiring, shut off valves, sensors and refrigerant volume. This test ceases automatically when completed.

**Easy Maintenance Self Diagnostic Function**

This function operated via push button on the PCB, speeds up troubleshooting and should be used for start-up and maintenance. Disconnected thermistors, faulty solenoid valves or motor operated valves, compressor malfunctions, communication errors, etc can be diagnosed quickly.

**Automatic Information Storage**

During unit operation, storage of data from the last five minutes occurs automatically. In cases of malfunction, analysis of data from the last five minutes will be carried out to identify the location of the problem and cause of malfunction. Measures to eliminate the cause of malfunction can then be implemented.
## VRV Indoor Units

### Indoor Type

<table>
<thead>
<tr>
<th>Indoor Type</th>
<th>Capacity Range</th>
<th>MBH</th>
<th>7.5</th>
<th>09</th>
<th>12</th>
<th>18</th>
<th>24</th>
<th>30</th>
<th>36</th>
<th>42</th>
<th>48</th>
<th>54</th>
<th>72</th>
<th>96</th>
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<tbody>
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<td>Slim duct built-in</td>
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<td>2’ x 2’ 4-way ceiling mounted</td>
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<td>Wall mounted unit</td>
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<td>Ceiling suspended unit</td>
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<td>Floor standing unit</td>
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<td>Concealed floor standing unit</td>
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<tr>
<td>100% Outside Air Processing Unit</td>
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</tbody>
</table>

### Available Features

- Available (11 types, 51 models)
- Condensate pump standard on model
- Outside air connection possible on model

---

**VRV VIII**

**DAIKIN AC**

**ABSOLUTE COMFORT**
VRVIII Specifications

460V heat pump

Single Module Systems

<table>
<thead>
<tr>
<th>Model</th>
<th>6-Ton</th>
<th>8-Ton</th>
<th>9-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>RXYQ72PAYD</td>
<td>RXYQ96PAYD</td>
<td>RXYQ108PAYD</td>
</tr>
</tbody>
</table>

### Performance

<table>
<thead>
<tr>
<th>Performance</th>
<th>6-Ton</th>
<th>8-Ton</th>
<th>9-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Cooling Capacity</td>
<td>72,000</td>
<td>96,000</td>
<td>108,000</td>
</tr>
<tr>
<td>Rated Cooling Capacity</td>
<td>70,000</td>
<td>92,000</td>
<td>104,000</td>
</tr>
<tr>
<td>Rated Cooling Input Power (system)</td>
<td>5.74</td>
<td>8.29</td>
<td>9.45</td>
</tr>
<tr>
<td>Rated Full Load EER</td>
<td>12.2</td>
<td>11.1</td>
<td>11.0</td>
</tr>
<tr>
<td>Nominal Heating Capacity</td>
<td>81,000</td>
<td>108,000</td>
<td>122,000</td>
</tr>
<tr>
<td>Rated Heating Capacity</td>
<td>77,000</td>
<td>103,000</td>
<td>116,000</td>
</tr>
<tr>
<td>Rated Heating Input Power (system)</td>
<td>6.6</td>
<td>9.1</td>
<td>10.3</td>
</tr>
<tr>
<td>Rated Full Load COP</td>
<td>3.4</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Power</td>
<td>460/3/60</td>
<td>460/3/60</td>
<td>460/3/60</td>
</tr>
<tr>
<td>Sound Pressure Level at 3ft.</td>
<td>58 dB(A)</td>
<td>58 dB(A)</td>
<td>60 dB(A)</td>
</tr>
</tbody>
</table>

### Refrigerant Piping

<table>
<thead>
<tr>
<th>Refrigerant Piping</th>
<th>6-Ton</th>
<th>8-Ton</th>
<th>9-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerant Type and Quantity</td>
<td>R-410A (18.1)</td>
<td>R-410A (19.8)</td>
<td>R-410A (20.1)</td>
</tr>
<tr>
<td>Liquid Pipe (Main Line)</td>
<td>3/8 (Braze)</td>
<td>3/8 (Braze)</td>
<td>1/2 (Braze)</td>
</tr>
<tr>
<td>Suction Gas Pipe (Main Line)</td>
<td>3/4 (Braze)</td>
<td>7/8 (Braze)</td>
<td>1-1/8 (Braze)</td>
</tr>
<tr>
<td>Vertical Pipe Length (if unit is below FCU)</td>
<td>295 ft</td>
<td>295 ft</td>
<td>295 ft</td>
</tr>
<tr>
<td>Vertical Pipe Length (if unit is above FCU)</td>
<td>164 (295 with Option)</td>
<td>164 (295 with Option)</td>
<td>164 (295 with Option)</td>
</tr>
<tr>
<td>Actual Pipe Length (Equivalent Length)</td>
<td>540 (620) ft</td>
<td>540 (620) ft</td>
<td>540 (620) ft</td>
</tr>
<tr>
<td>Total Pipe Length</td>
<td>3,280 ft</td>
<td>3,280 ft</td>
<td>3,280 ft</td>
</tr>
</tbody>
</table>

### Connection Ratio

<table>
<thead>
<tr>
<th>Connection Ratio</th>
<th>6-Ton</th>
<th>8-Ton</th>
<th>9-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectable Indoor Unit Ratio (as Standard)</td>
<td>50-130%</td>
<td>50-130%</td>
<td>50-130%</td>
</tr>
<tr>
<td>Maximum Number of Indoor Units</td>
<td>12</td>
<td>16</td>
<td>18</td>
</tr>
</tbody>
</table>

### Unit

<table>
<thead>
<tr>
<th>Unit</th>
<th>6-Ton</th>
<th>8-Ton</th>
<th>9-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>573 lbs</td>
<td>573 lbs</td>
<td>573 lbs</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>66-1/8 x 36-5/8 x 30-1/8</td>
<td>66-1/8 x 36-5/8 x 30-1/8</td>
<td>66-1/8 x 36-5/8 x 30-1/8</td>
</tr>
</tbody>
</table>

### Fan

<table>
<thead>
<tr>
<th>Fan</th>
<th>6-Ton</th>
<th>8-Ton</th>
<th>9-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Flow</td>
<td>6,530 cfm</td>
<td>6,530 cfm</td>
<td>7,060 cfm</td>
</tr>
<tr>
<td>External Static Pressure</td>
<td>0.32 in.W.G.</td>
<td>0.32 in.W.G.</td>
<td>0.32 in.W.G.</td>
</tr>
<tr>
<td>Fan Motor Output and Quantity</td>
<td>0.75 x 1</td>
<td>0.75 x 1</td>
<td>0.75 x 1</td>
</tr>
</tbody>
</table>

### Electrical

<table>
<thead>
<tr>
<th>Electrical</th>
<th>6-Ton</th>
<th>8-Ton</th>
<th>9-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Overcurrent Protection (MOP)</td>
<td>A = 25</td>
<td>A = 25</td>
<td>A = 30</td>
</tr>
<tr>
<td>Minimum Circuit Amps (MCA)</td>
<td>A = 20.2</td>
<td>A = 20.3</td>
<td>A = 20.5</td>
</tr>
<tr>
<td>Minimum Starting Current (MSC)</td>
<td>A = 65</td>
<td>A = 65</td>
<td>A = 65</td>
</tr>
<tr>
<td>Compressor Rated Load Amps (RLA)</td>
<td>A = 7.1</td>
<td>A = 3.9 + 8.4</td>
<td>A = 6.1 + 8.4</td>
</tr>
</tbody>
</table>

### Compressor

<table>
<thead>
<tr>
<th>Compressor</th>
<th>6-Ton</th>
<th>8-Ton</th>
<th>9-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressor Type</td>
<td>Daikin Scroll x 2</td>
<td>Daikin Scroll x 2</td>
<td>Daikin Scroll x 2</td>
</tr>
<tr>
<td>Compressor Set-Up</td>
<td>1 INV + 1 FIX</td>
<td>1 INV + 1 FIX</td>
<td>1 INV + 1 FIX</td>
</tr>
<tr>
<td>Compressor Capacity Control</td>
<td>%</td>
<td>20 - 100</td>
<td>14 - 100</td>
</tr>
</tbody>
</table>

---

1. Indoor temp.: 80°FDB or 67°FWB / outdoor temp.: 95°FDB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
2. Indoor temp.: 70°FDB / outdoor temp.: 47°FDB or 43°FWB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
3. The tested system EER and COP values reflect “full load efficiency only and are the results from testing to the Alternate Test Method (ATM) guidelines provided by the U.S. Department of Energy (DOE) in the Federal Register / Vol. 74, No. 68 / Friday April 8, 2009 / Notices / Pages 15955-15958."
## Double Module Systems

### VRVIII 460V Heat Pump

<table>
<thead>
<tr>
<th>Model</th>
<th>12-Ton</th>
<th>14-Ton</th>
<th>16-Ton</th>
<th>18-Ton</th>
<th>20-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>RXYQ144PAYD</td>
<td>RXYQ168PAYD</td>
<td>RXYQ192PAYD</td>
<td>RXYQ120PYDNR</td>
<td>RXYQ240PYDNR</td>
</tr>
<tr>
<td>Combination</td>
<td>RXYQ72PAYD x 2</td>
<td>RXYQ96PAYD + RXYQ72PAYD</td>
<td>RXYQ96PAYD x 2</td>
<td>RXYQ120PYDNR + RXYQ96PAYD</td>
<td>RXYQ120PYDNR x 2</td>
</tr>
</tbody>
</table>

### Performance

#### Nominal Cooling Capacity

**Btu/h**: 144,000

**Rated Cooling Capacity**: 138,000

**Rated Cooling Input Power (system)**: 11.31 kW

**Rated Full Load EER**:

**Btu/h**: 160,000

**Rated Heating Capacity**: 154,000

**Rated Heating Input Power (system)**: 13.3 kW

**Rated Full Load COP**:

**Btu/h**: 460,000

**Power**: 460/3/60

**Sound Pressure Level at 3ft.**: 62 dB(A)

#### Refrigerant Piping

- **Refrigerant Type and Quantity (lbs.)**: R-410A (18.1+18.1)
- **Liquid Pipe (Main Line)**: 1/2 (Braze)
- **Suction Gas Pipe (Main Line)**: 1-1/8 (Braze)
- **High and Low Pressure Equalization Pipe**: 3/4 (Braze)
- **Vertical Pipe Length (if unit is below FCU)**: 295 ft.
- **Actual Pipe Length (Equivalent Length)**: 540 ft.
- **Total Pipe Length**: 3,280 ft.

### Connection Ratio

- **Connectable Indoor Unit Ratio**: % 50-130% as Standard (Up to 200% is permitted depending on application & fan coil unit selection)
- **Maximum Number of Indoor Units**: Qty. 25, 29, 33, 37, 41
- **Weight**: lbs. 573 + 573

### Fan

- **Air Flow (cfm)**: 6,530 + 6,530
- **External Static Pressure (in. W.G.)**: 0.32
- **Fan Motor Output and Quantity (kW/Qty.)**: 0.75 x 2

### Electrical

- **Maximum Overcurrent Protection (MOP)**: A 25 + 25
- **Minimum Circuit Amps (MCA)**: A 20.2 + 20.2
- **Minimum Starting Current (MSC)**: A 69
- **Compressor Rated Load Amps (RLA)**: A 7.1 + 7.1

### Compressor

- **Compressor Type**: Daikin Scroll x 4
- **Compressor Set-Up**: (1 INV + 1 FIX) x 2 (1 INV + 1 FIX) x 2 (1 INV + 1 FIX) x 2 (1 INV + 1 FIX) x 2 (1 INV + 1 FIX) x 2
- **Compressor Capacity Control**: % 13 - 100

---

1. Indoor temp.: 80°FDB or 67°FWB / outdoor temp.: 95°FDB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
2. Indoor temp.: 70°FDB / outdoor temp.: 47°FDB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
3. The tested system EER and COP values reflect full load efficiency only and are the results from testing to the Alternate Test Method (ATM) guidelines provided by the U.S. Department of Energy (DOE) in the Federal Register / Vol. 74, No. 68 / Friday April 8, 2009 / Notices / Pages 15955-15958.
## Single Module Systems

### VRVIII 208-230V Heat Pump Specifications

#### Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Nominal Cooling Capacitya</th>
<th>Rated Cooling Capacity</th>
<th>Rated Cooling Input Power (system) kW</th>
<th>Rated Full Load EERb (system)</th>
<th>Nominal Heating Capacityc</th>
<th>Rated Heating Capacity</th>
<th>Rated Heating Input Power (system) kW</th>
<th>Rated Full Load COPb (system)</th>
<th>Power</th>
<th>Sound Pressure Level at 3ft. dB(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RXYQ72PATJ</td>
<td>72,000</td>
<td>70,000</td>
<td>5.74</td>
<td>12.2</td>
<td>80,000</td>
<td>77,000</td>
<td>6.6</td>
<td>3.4</td>
<td>V/ph/Hz</td>
<td>208-230/3/60</td>
</tr>
<tr>
<td>RXYQ96PATJ</td>
<td>96,000</td>
<td>92,000</td>
<td>8.29</td>
<td>11.1</td>
<td>108,000</td>
<td>103,000</td>
<td>9.1</td>
<td>3.3</td>
<td>58</td>
<td>208-230/3/60</td>
</tr>
<tr>
<td>RXYQ108PATJ</td>
<td>108,000</td>
<td>104,000</td>
<td>9.45</td>
<td>11.0</td>
<td>122,000</td>
<td>116,000</td>
<td>10.3</td>
<td>3.3</td>
<td>60</td>
<td>208-230/3/60</td>
</tr>
</tbody>
</table>

#### Refrigerant Piping

<table>
<thead>
<tr>
<th>Refrigerant Type and Quantity (lbs.)</th>
<th>Liquid Pipe (Main Line) in.</th>
<th>Suction Gas Pipe (Main Line) in.</th>
<th>Vertical Pipe Length (ft.)</th>
<th>Actual Pipe Length (Equivalent Length) ft.</th>
<th>Total Pipe Length ft.</th>
<th>Connectable Indoor Unit Ratio %</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-410A (18.1)</td>
<td>3/8 (Braze)</td>
<td>3/4 (Braze)</td>
<td>295</td>
<td>540 (620)</td>
<td>3,280</td>
<td>50-130% as Standard (Up to 200% is permitted depending on application &amp; fan coil unit selection)</td>
</tr>
<tr>
<td>R-410A (19.8)</td>
<td>3/8 (Braze)</td>
<td>7/8 (Braze)</td>
<td>295</td>
<td>540 (620)</td>
<td>3,280</td>
<td>50-130% as Standard (Up to 200% is permitted depending on application &amp; fan coil unit selection)</td>
</tr>
<tr>
<td>R-410A (20.1)</td>
<td>1/2 (Braze)</td>
<td>1-1/8 (Braze)</td>
<td>295</td>
<td>540 (620)</td>
<td>3,280</td>
<td>50-130% as Standard (Up to 200% is permitted depending on application &amp; fan coil unit selection)</td>
</tr>
</tbody>
</table>

#### Connection Ratio

<table>
<thead>
<tr>
<th>Maximum Number of Indoor Units Qty.</th>
<th>12</th>
<th>16</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight lbs.</td>
<td>560</td>
<td>560</td>
<td>560</td>
</tr>
<tr>
<td>Dimensions (H x W x D in.)</td>
<td>66-1/8 x 36-5/8 x 30-1/8</td>
<td>66-1/8 x 36-5/8 x 30-1/8</td>
<td>66-1/8 x 36-5/8 x 30-1/8</td>
</tr>
</tbody>
</table>

#### Fan

<table>
<thead>
<tr>
<th>Air Flow cfm</th>
<th>6,530</th>
<th>6,530</th>
<th>7,060</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Static Pressure in. W.G.</td>
<td>0.32</td>
<td>0.32</td>
<td>0.32</td>
</tr>
<tr>
<td>Fan Motor Output and Quantity kW (Qty.)</td>
<td>0.75 x 1</td>
<td>0.75 x 1</td>
<td>0.75 x 1</td>
</tr>
<tr>
<td>Maximum Overcurrent Protection (MOP)</td>
<td>A</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>A Maximum Circuit Amps (MCA)</td>
<td>A</td>
<td>36.1</td>
<td>36.1</td>
</tr>
<tr>
<td>A Minimum Starting Current (MSC)</td>
<td>A</td>
<td>131</td>
<td>131</td>
</tr>
<tr>
<td>Compressor Rated Load Amps (RLA)</td>
<td>A</td>
<td>14.2</td>
<td>7.8 + 16.8</td>
</tr>
</tbody>
</table>

#### Compressor

<table>
<thead>
<tr>
<th>Compressor Type</th>
<th>Daikin Scroll x 2</th>
<th>Daikin Scroll x 2</th>
<th>Daikin Scroll x 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressor Set-Up</td>
<td>1 INV + 1 FIX</td>
<td>1 INV + 1 FIX</td>
<td>1 INV + 1 FIX</td>
</tr>
<tr>
<td>Compressor Capacity Control %</td>
<td>20 - 100</td>
<td>14 - 100</td>
<td>14 - 100</td>
</tr>
</tbody>
</table>

---

1. Indoor temp.: 80°FDB or 67°FWB / outdoor temp.: 95°FDB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
2. Indoor temp.: 70°FDB / outdoor temp.: 47°FDB or 43°FWB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
3. The tested system EER and COP values reflect “full load efficiency only and are the results from testing to the Alternate Test Method (ATM) guidelines provided by the U.S. Department of Energy (DOE) in the Federal Register / Vol. 74, No. 68 / Friday April 8, 2009 / Notices / Pages 15955-15958
Double Module Systems

<table>
<thead>
<tr>
<th>VRVIII 208-230V Heat Pump</th>
<th>12-Ton</th>
<th>14-Ton</th>
<th>16-Ton</th>
<th>18-Ton</th>
<th>20-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong> Name</td>
<td>RXYQ144PATJ</td>
<td>RXYQ168PATJ</td>
<td>RXYQ192PATJ</td>
<td>RXYQ216PTJUR</td>
<td>RXYQ240PTJUR</td>
</tr>
<tr>
<td><strong>Combination</strong></td>
<td>RXYQ72PATJ x 2</td>
<td>RXYQ96PATJ + RXYQ72PATJ x 2</td>
<td>RXYQ96PATJ x 2</td>
<td>RXYQ120PATJUR + RXYQ96PATJ</td>
<td>RXYQ120PATJUR x 2</td>
</tr>
</tbody>
</table>

**Performance**

- **Nominal Cooling Capacity**
  - Btu/h: 144,000
  - 168,000
  - 192,000
  - 216,000
  - 240,000

- **Rated Cooling Capacity**
  - Btu/h: 138,000
  - 160,000
  - 184,000
  - 206,000
  - 240,000

- **Rated Cooling Input Power (system)**
  - kW: 11.31
  - 14.04
  - 17.20
  - 19.43
  - 21.25

- **Rated Full Load EER (system)**
  - 12.2
  - 11.4
  - 10.7
  - 10.60
  - 9.80

- **Nominal Heating Capacity**
  - Btu/h: 162,000
  - 188,000
  - 216,000
  - 243,000
  - 270,000

- **Rated Heating Capacity**
  - Btu/h: 154,000
  - 180,000
  - 206,000
  - 232,000
  - 258,000

- **Rated Heating Input Power (system)**
  - kW (Btu/h): 13.3
  - 16.0
  - 18.9
  - 21.25
  - 23.63

- **Rated Full Load COP (system)**
  - 3.4
  - 3.3
  - 3.2
  - 3.2
  - 3.2

- **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 at 3ft.**
  - dB(A): 61
  - 61
  - 62
  - 62
  - 63

**Refrigerant Piping**

- **Refrigerant Type and Quantity**
  - (lbs.): R-410A (18.1 + 18.1)
  - R-410A (19.8+18.1)
  - R-410A (19.8+19.8)
  - R-410A (20.1+19.8)
  - R-410A (20.1+20.1)

- **Liquid Pipe (Main Line)**
  - in.: 1/2 (Braze)
  - 5/8 (Braze)
  - 5/8 (Braze)
  - 5/8 (Braze)
  - 5/8 (Braze)

- **Suction Gas Pipe (Main Line)**
  - in.: 1-1/8 (Braze)
  - 1-1/8 (Braze)
  - 1-1/8 (Braze)
  - 1-1/8 (Braze)
  - 1-3/8 (Braze)

- **High and Low Pressure Equalization Pipe**
  - in.: 3/4 (Braze)
  - 3/4 (Braze)
  - 3/4 (Braze)
  - 3/4 (Braze)
  - 3/4 (Braze)

- **Vertical Pipe Length (if unit is below FCU)**
  - ft.: 295
  - 295
  - 295
  - 295
  - 295

- **Vertical Pipe Length (if unit is above FCU)**
  - ft.: 164 (295 with Option)
  - 164 (295 with Option)
  - 164 (295 with Option)
  - 164 (295 with Option)
  - 164 (295 with Option)

- **Actual Pipe Length (Equivalent Length)**
  - ft.: 540 (620)
  - 540 (620)
  - 540 (620)
  - 540 (620)
  - 540 (620)

- **Total Pipe Length**
  - ft.: 3,280
  - 3,280
  - 3,280
  - 3,280
  - 3,280

**Connection Ratio**

- **Connectable Indoor Unit Ratio**
  - %: 50-130% as Standard (Up to 200% is permitted depending on application & fan coil unit selection)

<table>
<thead>
<tr>
<th>Model</th>
<th>Maximum Number of Indoor Units Qty.</th>
<th>%</th>
<th>Weight lbs.</th>
<th>Dimensions (H x W x D) in.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>560 + 560</td>
<td>66-1/8 x 36-5/8 x 30-1/8</td>
</tr>
</tbody>
</table>

**Fan**

- **Air Flow**
  - cfm: 6,530 + 6,530
  - 6,530 + 6,530
  - 6,530 + 6,530
  - 7,060 + 6,530
  - 7,060 + 7,060

- **External Static Pressure**
  - in. W.G.: 0.32
  - 0.32
  - 0.32
  - 0.32
  - 0.32

- **Fan Motor Output and Quantity**
  - kW (Qty.): 0.75 x 2
  - 0.75 x 2
  - 0.75 x 2
  - 0.75 x 2
  - 0.75 x 2

**Electrical**

- **Maximum Overcurrent Protection (MOP)**
  - A: 40 + 40
  - 50 + 40
  - 50 + 50
  - 50 + 60
  - 60 + 60

- **Minimum Circuit Amps (MCA)**
  - A: 36.1 + 36.1
  - 36.1 + 36.1
  - 36.1 + 36.1
  - 41.3 + 36.1
  - 41.3 + 41.3

- **Minimum Starting Current (MSC)**
  - A: 137
  - 137
  - 137
  - 154
  - 155

- **Compressor Rated Load Amps (RLA)**
  - A: 18.0 x 2
  - (7.8 + 16.8) + 18.0
  - (7.8 + 16.8) + 18.0
  - (12.2 + 16.8) + (7.8 + 16.8)
  - (12.2 + 16.8) + (7.8 + 16.8)

- **Compressor Type**
  - Daikin Scroll x 4
  - Daikin Scroll x 4
  - Daikin Scroll x 4
  - Daikin Scroll x 4
  - Daikin Scroll x 4

- **Compressor Set-Up**
  - (1 INV + 1 FIX) x 2
  - (1 INV + 1 FIX) x 2
  - (1 INV + 1 FIX) x 2
  - (1 INV + 1 FIX) x 2
  - (1 INV + 1 FIX) x 2

- **Compressor Control Capacity**
  - %: 13 - 100
  - 9 - 100
  - 7 - 100
  - 7 - 100
  - 6 - 100

1. Indoor temp.: 80°FDB or 67°FWB / outdoor temp.: 95°FDB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
2. Indoor temp.: 70°FDB / outdoor temp.: 47°FDB or 43°FWB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
3. The tested system EER and COP values reflect “full load efficiency only and are the results from testing to the Alternate Test Method (ATM) guidelines provided by the U.S. Department of Energy (DOE) in the Federal Register / Vol. 74, No. 68 / Friday April 8, 2009 / Notices / Pages 15955-15958
Single Module Systems

VRVIII 460V Heat Recovery

### Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Name</th>
<th>REYQ72PAYD</th>
<th>REYQ96PAYD</th>
<th>REYQ120PAYD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Cooling Capacity</td>
<td>Btu/h</td>
<td>72,000</td>
<td>96,000</td>
<td>120,000</td>
</tr>
<tr>
<td>Rated Cooling Capacity</td>
<td>Btu/h</td>
<td>70,000</td>
<td>92,000</td>
<td>114,000</td>
</tr>
<tr>
<td>Rated Cooling Input Power (system)</td>
<td>kW</td>
<td>5.56</td>
<td>7.93</td>
<td>10.36</td>
</tr>
<tr>
<td>Rated Full Load EER (system)</td>
<td></td>
<td>12.6</td>
<td>11.6</td>
<td>11.0</td>
</tr>
<tr>
<td>Nominal Heating Capacity</td>
<td>Btu/h</td>
<td>81,000</td>
<td>108,000</td>
<td>135,000</td>
</tr>
<tr>
<td>Rated Heating Capacity</td>
<td>Btu/h</td>
<td>77,000</td>
<td>103,000</td>
<td>130,000</td>
</tr>
<tr>
<td>Rated Heating Input Power (system)</td>
<td>kW (Btu/h)</td>
<td>6.4</td>
<td>8.9</td>
<td>11.5</td>
</tr>
<tr>
<td>Rated Full Load COP (system)</td>
<td></td>
<td>3.5</td>
<td>3.4</td>
<td>3.3</td>
</tr>
<tr>
<td>Power</td>
<td>V/ph/Hz</td>
<td>460/3/60</td>
<td>460/3/60</td>
<td>460/3/60</td>
</tr>
<tr>
<td>Sound Pressure Level at 3ft.</td>
<td>dBA</td>
<td>58</td>
<td>58</td>
<td>60</td>
</tr>
</tbody>
</table>

### Refrigerant Piping

| Refrigerant Type and Quantity | (lbs.) | R-410A (22.7) | R-410A (23.4) | R-410A (23.8) |
| Liquid Pipe (Main Line)       | in.     | 3/8 (Braze)   | 3/8 (Braze)   | 1/2 (Braze)   |
| Suction Gas Pipe (Main Line)  | in.     | 3/4 (Braze)   | 7/8 (Braze)   | 1-1/8 (Braze) |
| High and Low Pressure Gas Pipe (Main line) | in. | 5/8 (Braze)   | 3/4 (Braze)   | 3/4 (Braze)   |
| Vertical Pipe Length (if unit is below FCU) | ft. | 295         | 295         | 295           |
| Vertical Pipe Length (if unit is above FCU) | ft. | 164 (295 with Option) | 164 (295 with Option) | 164 (295 with Option) |
| Actual Pipe Length (Equivalent Length) | ft. | 540 (620)   | 540 (620)   | 540 (620)    |
| Total Pipe Length             | ft.     | 3,280       | 3,280       | 3,280        |

### Connection Ratio

| Connectable Indoor Unit Ratio | %       | 50-130% as Standard (Up to 200% is permitted depending on application & fan coil unit selection) |

### Unit

| Weight | lbs. | 732 |
| Dimensions (H x W x D) | in. | 66-1/8 x 51-3/16 x 30-1/8 |

### Fan

| Air Flow | cfm | 6,700 |
| External Static Pressure | in. W.G. | 0.32 |
| Fan Motor Output and Quantity | kW (Qt.) | 0.35 x 2 |

### Electrical

| Maximum Overcurrent Protection (MOP) | A | 20 |
| Minimum Circuit Amps (MCA) | A | 16 |
| Minimum Starting Current (MSC) | A | 65 |
| Compressor Rated Load Amps (RLA) | A | 2.4 + 7.0 |
| Compressor Type | Daikin Scroll x 2 |
| Compressor Capacity | % | 20 - 100 |

### Compressor

| Compressor Capacity Control | % | 10 - 100 |

1. Indoor temp.: 80°FDB or 67°FWB / outdoor temp.: 95°FDB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
2. Indoor temp.: 70°FDB / outdoor temp.: 47°FDB or 43°FWB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
3. The tested system EER and COP values reflect "full load efficiency only and are the results from testing to the Alternate Test Method (ATM) guidelines provided by the U.S. Department of Energy (DOE) in the Federal Register / Vol. 74, No. 68 / Friday April 8, 2009 / Notices / Pages 15955-15958.

The Branch Selector units are used for VRVIII Heat Recovery applications. Please refer to engineering data for details.

### Branch Selector Units

<table>
<thead>
<tr>
<th>Model Name</th>
<th>BSVQ36PVJU</th>
<th>BSVQ60PVJU</th>
<th>BSVQ96PVJU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Supply</td>
<td>V/ph/Hz</td>
<td>208-230/1/60</td>
<td></td>
</tr>
<tr>
<td>Total Capacity Index of Connectable Indoor Units</td>
<td>Less than 36</td>
<td>Less than 60</td>
<td>Less than 96</td>
</tr>
<tr>
<td>Maximum Number of Connectable Indoor Units</td>
<td>5</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Note:

1. In case of connecting with a 07-18 type indoor unit, match to the size of field pipe using the attached pipe. (Connection between the attached pipe and the field pipe must be brazed.)
2. In case of connecting with indoor unit capacity index 54 or more and 60 or less, match the size of the field pipe using the attached pipe. (Connection between the attached pipe and the field pipe must be brazed.)
Double Module Systems

**VRVIII 460V Heat Recovery**

<table>
<thead>
<tr>
<th>Model</th>
<th>12-Ton</th>
<th>14-Ton</th>
<th>16-Ton</th>
<th>18-Ton</th>
<th>20-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>REYQ144PAYD</td>
<td>REYQ168PAYD</td>
<td>REYQ192PAYD</td>
<td>REYQ216PYDNR</td>
<td>REYQ240PYDNR</td>
</tr>
<tr>
<td>Name</td>
<td>REMQ72PAYD x 2</td>
<td>REMQ96PAYD + REMQ72PAYD</td>
<td>REMQ96PAYD x 2</td>
<td>REMQ120PYDNR + REMQ96PAYD</td>
<td>REMQ120PYDNR x 2</td>
</tr>
</tbody>
</table>

### Performance

- **Nominal Cooling Capacity**
  - Btu/h: 144,000
- **Rated Cooling Capacity**
  - Btu/h: 138,000
- **Rated Cooling Input Power (system)**
  - kW: 11.31
- **Rated Full Load EER (system)**
  - Btu/h: 12.2
- **Nominal Heating Capacity**
  - Btu/h: 162,000
- **Rated Heating Capacity**
  - Btu/h: 154,000
- **Rated Heating Input Power (system)**
  - kW: 13.3
- **Rated Full Load COP (system)**
  - Btu/h: 3.4
- **Power**
  - V/Ph/Hz: 460/3/60
- **Sound Pressure Level at 3ft**
  - dB(A): 60

### Refrigerant Piping

- **Refrigerant Type and Quantity (lbs.)**
  - R-410A (18.1 + 18.1)
- **Liquid Pipe (Main Line)**
  - in: 1/2 (Braze)
- **Suction Gas Pipe (Main Line)**
  - in: 1-1/8 (Braze)
- **High and Low Pressure Gas Pipe (Main line)**
  - in: 7/8 (Braze)
- **High and Low Pressure Equalization Pipe**
  - in: 3/4 (Braze)
- **Vertical Pipe Length (if unit is below FCU)**
  - ft: 295
- **Vertical Pipe Length (if unit is above FCU)**
  - ft: 164 (295 with Option)
- **Actual Pipe Length (Equivalent Length)**
  - ft: 540 (620)
- **Total Pipe Length**
  - ft: 3,280

### Connection Ratio

- **Connectable Indoor Unit Ratio %**
  - 50-130% as Standard (Up to 200% is permitted depending on application & fan coil unit selection)
- **Maximum Number of Indoor Units**
  - Qty: 25, 29, 33, 37, 41

### Unit

- **Weight**
  - lbs: 463 + 463
- **Dimensions (H x W x D)**
  - in: 66-1/8 x 36-5/8 x 30-1/8 x 2

### Fan

- **Air Flow**
  - cfm: 6,350 + 6,350
- **External Static Pressure**
  - in. W.G.: 0.32
- **Fan Motor Output and Quantity**
  - kW (Qty.): 0.75 x 2

### Electrical

- **Maximum Overcurrent Protection (MOP)**
  - A: 25 + 25
- **Minimum Circuit Amps (MCA)**
  - A: 16.7 + 16.7
- **Minimum Starting Current (MSC)**
  - A: 77
- **Compressor Rated Load Amps (RLA)**
  - A: (7.1) x 2

### Compressor

- **Compressor Type**
  - Daikin Scroll x 2
- **Compressor Set-Up**
  - (1 INV) x 2
- **Compressor Capacity Control %**
  - 13 - 100

---

1. Indoor temp: 80°FDB or 67°FWB / Outdoor temp: 95°FDB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
2. Indoor temp: 70°FDB / Outdoor temp: 47°FDB or 43°FWB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
3. The tested system EER and COP values reflect “full load efficiency only and are the results from testing to the Alternate Test Method (ATM) guidelines provided by the U.S. Department of Energy (DOE) in the Federal Register / Vol. 74, No. 68 / Friday April 8, 2009 / Notices / Pages 15955-15958.

For Branch Selector unit specifications, refer to page 20.
VRVIII Specifications 208-230V heat recovery

Single Module Systems

VRVIII 208-230V Heat Recovery

<table>
<thead>
<tr>
<th>Model</th>
<th>Name</th>
<th>6-Ton</th>
<th>8-Ton</th>
<th>10-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>REYQ72PATJ</td>
<td>REYQ96PATJ</td>
<td>REYQ120PATJ</td>
</tr>
</tbody>
</table>

**Performance**

- **Nominal Cooling Capacity**
  - Btu/h: 72,000
  - Btu/h: 96,000
  - Btu/h: 120,000

- **Rated Cooling Capacity**
  - Btu/h: 70,000
  - Btu/h: 92,000
  - Btu/h: 114,000

- **Rated Cooling Input Power (system)**
  - kW: 5.56
  - kW: 7.93
  - kW: 10.36

- **Rated Full Load EER (system)**
  - 12.6
  - 11.6
  - 11.0

- ** Rated Heating Capacity**
  - Btu/h: 81,000
  - Btu/h: 108,000
  - Btu/h: 135,000

- **Rated Heating Input Power (system)**
  - kW: 77,000
  - kW: 103,000
  - kW: 130,000

- **Rated Full Load COP (system)**
  - 5.0
  - 3.4
  - 3.3

- **Power**
  - V/ph/Hz: 208-230/3/60
  - 208-230/3/60
  - 208-230/3/60

- **Sound Pressure Level at 3ft.**
  - dB(A): 58
  - dB(A): 58
  - dB(A): 60

**Refrigerant Piping**

- **Refrigerant Type and Quantity**
  - (lbs.): R-410A (22.7)
  - R-410A (23.4)
  - (lbs.): R-410A (23.8)

- **Liquid Pipe (Main Line)**
  - in.: 3/8 (Brazed)
  - 3/8 (Brazed)
  - 3/8 (Brazed)

- **Suction Gas Pipe (Main Line)**
  - in.: 3/4 (Brazed)
  - 7/8 (Brazed)
  - 1-1/8 (Brazed)

- **High and Low Pressure Gas Pipe (Main Line)**
  - in.: 5/8 (Brazed)
  - 3/4 (Brazed)
  - 3/4 (Brazed)

- **Vertical Pipe Length (if unit is below FCU)**
  - ft.: 295
  - 295
  - 295

- **Vertical Pipe Length (if unit is above FCU)**
  - ft.: 164 (295 with Option)
  - 164 (295 with Option)
  - 164 (295 with Option)

- **Actual Pipe Length (Equivalent Length)**
  - ft.: 540 (620)
  - 540 (620)
  - 540 (620)

- **Total Pipe Length**
  - ft.: 3,280
  - 3,280
  - 3,280

**Connection Ratio**

- **Connectable Indoor Unit Ratio**
  - %: 50-130% as Standard (Up to 200% is permitted depending on application & fan coil unit selection)

**Unit**

- **Maximum Number of Indoor Units**
  - Qty.: 12
  - 16
  - 20

**Fan**

- **Air Flow**
  - cfm: 6,700
  - 6,700
  - 7,410

- **External Static Pressure**
  - in. W.G.: 0.32
  - 0.32
  - 0.32

- **Fan Motor Output and Quantity**
  - kW (Qty.): 0.35 x 2
  - 0.35 x 2
  - 0.35 x 2

**Electrical**

- **Maximum Overcurrent Protection (MOP)**
  - A: 40
  - 45
  - 50

- **Minimum Circuit Amps (MCA)**
  - A: 36.1
  - 43.8
  - 44.2

- **Minimum Starting Current (MSC)**
  - A: 131
  - 131
  - 131

- **Compressor Rated Load Amps (RLA)**
  - A: 4.8 + 14.0
  - 8.4 + 14.0
  - 12.0 + 13.6

**Compressor**

- **Type**
  - Daikin Scroll x 2
  - Daikin Scroll x 2
  - Daikin Scroll x 2

- **Set-Up**
  - 1 INV + 1 FIX
  - 1 INV + 1 FIX
  - 1 INV + 1 FIX

- **Capacity Control**
  - %: 20 - 100
  - 14 - 100
  - 14 - 100

---

1 Indoor temp.: 80°FDB or 67°FWB / outdoor temp.: 95°FDB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
2 Indoor temp.: 70°FDB / outdoor temp.: 47°FDB or 43°FWB / Equivalent piping length: 25 ft (7.5 m), level difference: 0 ft.
3 The tested system EER and COP values reflect "full load efficiency only and are the results from testing to the Alternate Test Method (ATM) guidelines provided by the U.S. Department of Energy (DOE) in the Federal Register / Vol. 74, No. 68 / Friday April 8, 2009 / Notices / Pages 15955-15958.

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For Branch Selector unit specifications, refer to page 20.
Double Module Systems

VRVIII 208-230V Heat Recovery

<table>
<thead>
<tr>
<th>Model</th>
<th>Name</th>
<th>REYQ144PATJ</th>
<th>REYQ168PATJ</th>
<th>REYQ192PATJ</th>
<th>REYQ216PTJUR</th>
<th>REYQ240PTJUR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Combination</td>
<td>REMQ72PATJ x 2</td>
<td>REMQ96PATJ + REMQ72PATJ</td>
<td>REMQ96PATJ x 2</td>
<td>REMQ120PTJUR + REMQ96PATJ</td>
<td>REMQ120PTJUR x 2</td>
</tr>
</tbody>
</table>

**Performance**

<table>
<thead>
<tr>
<th>Nominal Cooling Capacity</th>
<th>Btu/h</th>
<th>144,000</th>
<th>168,000</th>
<th>192,000</th>
<th>216,000</th>
<th>240,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Cooling Capacity</td>
<td>Btu/h</td>
<td>138,000</td>
<td>160,000</td>
<td>184,000</td>
<td>206,000</td>
<td>240,000</td>
</tr>
<tr>
<td>Rated Cooling Input Power (system)</td>
<td>kW</td>
<td>11.31</td>
<td>14.04</td>
<td>17.20</td>
<td>19.43</td>
<td>24.49</td>
</tr>
<tr>
<td>Rated Full Load EER</td>
<td>(system)</td>
<td>12.2</td>
<td>11.4</td>
<td>10.7</td>
<td>10.60</td>
<td>9.80</td>
</tr>
<tr>
<td>Nominal Heating Capacity</td>
<td>Btu/h</td>
<td>162,000</td>
<td>188,000</td>
<td>216,000</td>
<td>243,000</td>
<td>270,000</td>
</tr>
<tr>
<td>Rated Heating Capacity</td>
<td>Btu/h</td>
<td>154,000</td>
<td>180,000</td>
<td>206,000</td>
<td>232,000</td>
<td>258,000</td>
</tr>
<tr>
<td>Rated Heating Input Power (system)</td>
<td>kW (Btu/h)</td>
<td>13.3</td>
<td>16.0</td>
<td>18.9</td>
<td>21.25</td>
<td>23.63</td>
</tr>
<tr>
<td>Rated Full Load COP</td>
<td>(system)</td>
<td>3.4</td>
<td>3.3</td>
<td>3.2</td>
<td>3.2</td>
<td>3.2</td>
</tr>
<tr>
<td>Sound Pressure Level at 3ft.</td>
<td>dBA</td>
<td>61</td>
<td>61</td>
<td>62</td>
<td>62</td>
<td>63</td>
</tr>
</tbody>
</table>

**Refrigerant**

<table>
<thead>
<tr>
<th>Refrigerant Type and Quantity (lbs.)</th>
<th>R-410A (18.1+18.1)</th>
<th>R-410A (19.8+19.8)</th>
<th>R-410A (19.8+19.8)</th>
<th>R-410A (20.1+19.8)</th>
<th>R-410A (20.1+20.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Pipe (Main Line) in.</td>
<td>1/2 (Braze)</td>
<td>5/8 (Braze)</td>
<td>5/8 (Braze)</td>
<td>5/8 (Braze)</td>
<td>5/8 (Braze)</td>
</tr>
<tr>
<td>Suction Gas Pipe (Main Line) in.</td>
<td>1-1/8 (Braze)</td>
<td>1-1/8 (Braze)</td>
<td>1-1/8 (Braze)</td>
<td>1-1/8 (Braze)</td>
<td>1-1/8 (Braze)</td>
</tr>
<tr>
<td>High and Low Pressure Gas Pipe (Main Line) in.</td>
<td>3/8 (Braze)</td>
<td>3/8 (Braze)</td>
<td>3/8 (Braze)</td>
<td>3/8 (Braze)</td>
<td>3/8 (Braze)</td>
</tr>
<tr>
<td>High and Low Pressure Equalization Pipe in.</td>
<td>3/4 (Braze)</td>
<td>3/4 (Braze)</td>
<td>3/4 (Braze)</td>
<td>3/4 (Braze)</td>
<td>3/4 (Braze)</td>
</tr>
<tr>
<td>Vertical Pipe Length (if unit is below FCU) ft.</td>
<td>295</td>
<td>295</td>
<td>295</td>
<td>295</td>
<td>295</td>
</tr>
<tr>
<td>Vertical Pipe Length (if unit is above FCU) ft.</td>
<td>164 (295 with Option)</td>
<td>164 (295 with Option)</td>
<td>164 (295 with Option)</td>
<td>164 (295 with Option)</td>
<td>164 (295 with Option)</td>
</tr>
<tr>
<td>Actual Pipe Length (Equivalent Length) ft.</td>
<td>540 (620)</td>
<td>540 (620)</td>
<td>540 (620)</td>
<td>540 (620)</td>
<td>540 (620)</td>
</tr>
<tr>
<td>Total Pipe Length ft.</td>
<td>3,280</td>
<td>3,280</td>
<td>3,280</td>
<td>3,280</td>
<td>3,280</td>
</tr>
</tbody>
</table>

**Connection Ratio**

| Connectable Indoor Unit Ratio % | 50-130% as Standard (Up to 200% is permitted depending on application & fan coil unit selection) |
| Maximum Number of Indoor Units Qty. | 25 | 29 | 33 | 37 | 41 |

**Unit Weight**

| lbs. | 450 + 450 | 560 + 450 | 560 + 560 | 560 + 560 | 560 + 560 |

**Dimensions (H x W x D)**

| (in.) | (66-1/8 x 36-5/8 x 30-1/8) x 2 |

**Fan**

| Air Flow (cfm) | 6,350 + 6,350 | 6,530 + 6,350 | 6,530 + 6,350 | 7,060 + 6,530 | 7,060 + 7,060 |
| External Static Pressure (in.W.G.) | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Fan Motor Output and Quantity (kW) | 0.75 x 2 | 0.75 x 2 | 0.75 x 2 | 0.75 x 2 | 0.75 x 2 |

**Electrical**

| Minimum Circuit Amps (MCA) A | 36.1 + 36.1 | 36.1 + 36.1 | 36.1 + 36.1 | 41.3 + 36.1 | 41.3 + 41.3 |
| Minimum Starting Current (MSC) A | - | 137 | 138 | 154 | 155 |
| Compressor Rated Load Amps (RLA) A | 14.2 + 14.2 | (7.8 + 16.8) + 14.2 | (7.8 + 16.8) + 14.2 | (12.2 + 16.8) + (7.8 + 16.8) | (12.2 + 16.8) + 14.2 |
| Compressor Type | Daikin Scroll x 1 | Daikin Scroll x 3 | Daikin Scroll x 4 | Daikin Scroll x 4 | Daikin Scroll x 4 |
| Compressor Set-Up (INV) | (1 INV) x 2 | (1 INV + 1 FIX) + 1 INV | (1 INV + 1 FIX) + 1 INV | (1 INV + 1 FIX) + 1 INV | (1 INV + 1 FIX) + 1 INV |
| Compressor Capacity Control % | 13 - 100 | 10 - 100 | 10 - 100 | 10 - 100 | 10 - 100 |

1 Indoor temp. : 80°FDB or 67°FWV / outdoor temp. : 95°FDB / Equivalent piping length : 25 ft (7.5 m), level difference : 0 ft.
2 Indoor temp. : 70°FDB / outdoor temp. : 47°FDB or 43°FWV / Equivalent piping length : 25 ft (7.5 m), level difference : 0 ft.
3 The tested system EER and COP values reflect *full load efficiency only and are the results from testing to the Alternate Test Method (ATM) guidelines provided by the U.S. Department of Energy (DOE) in the Federal Register / Vol. 74, No. 68 / Friday April 8, 2009 / Notices / Pages 15955-15958

For Branch Selector unit specifications, refer to page 20.
**VRVIII Installation Space**

**Standard supplied accessories**
Confirm the following accessories are included. The storage location of the accessories is shown in figure 1. (Refer to figure 1)
1. Clamps, Manuals, etc.
2. Accessory pipes

**Installation Space Examples**
- The installation space requirement shown in figure 2 is a reference for cooling.
- During installation, install the units using the most appropriate of the patterns shown in figure 2 for the location in question, taking into consideration human traffic and wind.
- If the number of units installed is more than that shown in the pattern in figure 2, install the units that there is no air short circuiting.
- As regards to space in front of the unit, consider the space needed for the refrigerant piping when installing the units, as determined by local codes.
- If the space requirements in figure 2 do not apply, contact your contractor or Daikin directly. (Refer to figure 2)
  1. Front side
  2. No limit to wall height
  3. Service space of front side
  4. Service space of suction side

For Patterns 1 and 2 in figure 2:
- Wall height for front side – no higher than 59 in.
- Wall height on the suction side – no higher than 19-5/8 in.
- Wall height for sides – no limit.
- If the height is exceeded the above, calculate h1 and h2 shown in the figure below, and add h2/2 to the service space of front side and h1/2 to the service space of suction side.

An inverter unit may cause electronic noise generated from AM broadcasting. Examine where to install the main unit and electric wires, keeping proper distances away from stereo equipment, personal computers, etc. Particularly for locations with weak reception, ensure there is a distance of at least 10 ft for indoor remote controllers, place power wiring and transmission wiring in conduits, and ground the conduits. (Refer to figure 3)
1. Indoor unit
2. Branch switch, overcurrent breaker
3. Remote controller
4. COOL/HEAT selector
5. Personal computer or radio

For detailed instructions please refer to proper Installation Manual
### VRVIII Accessories

#### VRVIII Heat Recovery - 208-230V and 460V

<table>
<thead>
<tr>
<th>Unit Model Number</th>
<th>REYQ72PAYD</th>
<th>REYQ96PAYD</th>
<th>REYQ144PAYD</th>
<th>REYQ16PAYD</th>
<th>REYQ18PAYD</th>
<th>REYQ192PAYD</th>
<th>REYQ216PYNDR</th>
<th>REYQ216PTJUR</th>
<th>REYQ240PTJUR</th>
<th>REYQ240PYNDR</th>
<th>REYQ240PTJUR</th>
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</thead>
<tbody>
<tr>
<td>REFNET Header</td>
<td>KHRP25M33H (max. 8 branches)</td>
<td>KHRP25M33H (max. 8 branches)</td>
<td>KHRP25M72H (max. 8 branches)</td>
<td>KHRP25M72H (max. 8 branches)</td>
<td>KHRP25M72H (max. 8 branches)</td>
<td>KHRP25M72H (max. 8 branches)</td>
<td>KHRP25M73HU (max. 8 branches)</td>
<td>KHRP25M33H (max. 8 branches)</td>
<td>KHRP25M33H (max. 8 branches)</td>
<td>KHRP25M33H (max. 8 branches)</td>
<td>KHRP25M73HU (max. 8 branches)</td>
</tr>
</tbody>
</table>

| Outdoor Unit multi piping connection kit | - | BHFP26P90U |
| Branch Selector box for Heat Recovery | BSVQ36PVJU | BSVQ60PVJU | BSVQ96PVJU |
| Increase height difference between indoor and outdoor unit to 295ft. | PCB REYQ_PYDN | PCB REYQ_PTJU |

#### VRVIII Heat Pump - 208-230V and 460V

<table>
<thead>
<tr>
<th>Unit Model Number</th>
<th>RXYQ72PAYD</th>
<th>RXYQ108PAYD</th>
<th>RXYQ144PAYD</th>
<th>RXQ192PAYD</th>
<th>RXQ192PATJ</th>
<th>RXQ16PAYD</th>
<th>RXQ16PAYD</th>
<th>RXQ16PAYD</th>
<th>RXQ16PAYD</th>
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</thead>
<tbody>
<tr>
<td>REFNET Header</td>
<td>KHRP26M22H (max. 4 branches) KHRP26M33H (max. 8 branches)</td>
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<td>KHRP26M22H (max. 4 branches) KHRP26M33H (max. 8 branches)</td>
</tr>
<tr>
<td>REFNET Joint</td>
<td>KHRP26A22T KHRP26A33T</td>
<td>KHRP26A22T KHRP26A33T</td>
<td>KHRP26A22T KHRP26A33T</td>
<td>KHRP26A22T KHRP26A33T</td>
<td>KHRP26A22T KHRP26A33T</td>
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<td>KHRP26A22T KHRP26A33T</td>
<td>KHRP26A22T KHRP26A33T</td>
</tr>
</tbody>
</table>

| Outdoor Unit multi piping connection kit | - | BHFP22P100U |
| Increase height difference between indoor and outdoor unit to 295ft. | PCB RXYQ_PYDN | PCB RXQ_PTJU |

#### BSVQ

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of Options</th>
<th>BSVQ36PVJU</th>
<th>BSVQ60PVJU</th>
<th>BSVQ96PVJU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cool/Heat Selector</td>
<td>KRC19-26A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-1</td>
<td>Fixing Box</td>
<td>KJB111A</td>
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</tr>
</tbody>
</table>
**VRV Controls**

**Choosing the right controls**

Unless it is controlled, managed and operated in an appropriate manner, a high-performing system will not be able to provide the energy-efficiency or comfort it claims. Promoting the systemization of control management not only improves efficiency, but also represents a number of possibilities in terms of convenience. Daikin’s line up of intelligent controls gives the user the ability to address all needs in one package and one supplier: Daikin.

Daikin controls are optimized for VRV technology and offers highly scalable solutions for all applications and budgets. It also allows for lower cost alternatives to traditional energy management systems when centralized control is required.

### Project Requirements vs. Daikin VRV Controls

<table>
<thead>
<tr>
<th>Project Requirements</th>
<th>Daikin VRV Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple individual zone control</td>
<td>BRC1F71 Navigation</td>
</tr>
<tr>
<td>Individual zone control with 7-day programmable scheduling</td>
<td>BRC2A71 Simplified</td>
</tr>
<tr>
<td>Multi-zone control without scheduling functions</td>
<td>DCS302C71 Centralized</td>
</tr>
<tr>
<td>Basic central point on/off control of all air handling units</td>
<td>DCS307C71 Unified</td>
</tr>
<tr>
<td>Advanced multi-zone control of small to medium size projects</td>
<td>DCS601C71 Intelligent Touch</td>
</tr>
<tr>
<td>Advanced multi-zone control of large commercial projects</td>
<td>Intelligent Manager</td>
</tr>
<tr>
<td>Advanced multi-zone control with scheduling logic and calendar</td>
<td>BACnet Interface</td>
</tr>
<tr>
<td>Automatic cooling/heating changeover for heat pump systems</td>
<td>LoVoWorx Interface</td>
</tr>
<tr>
<td>Single input batch shutdown of all connected air handlers</td>
<td>Simplified</td>
</tr>
<tr>
<td>Web browser control and monitoring via Intranet and Internet</td>
<td>Unified</td>
</tr>
<tr>
<td>E-mail notification of system alarms and equipment malfunctions</td>
<td>Intelligent Touch</td>
</tr>
<tr>
<td>Multiple tenant power billing for shared condenser applications</td>
<td>BACnet Interface</td>
</tr>
<tr>
<td>Temperature set-point range restrictions</td>
<td>LoVoWorx Interface</td>
</tr>
<tr>
<td>Graphical user interface based upon a PC platform</td>
<td>Intelligent Touch</td>
</tr>
<tr>
<td>Start/stop control of auxiliary building systems</td>
<td>BACnet Interface</td>
</tr>
<tr>
<td>Daikin VRV integration with BACnet based automation systems</td>
<td>Intelligent Touch</td>
</tr>
<tr>
<td>Daikin VRV integration with LoVoWorx based automation systems</td>
<td>LoVoWorx Interface</td>
</tr>
</tbody>
</table>

1. Requires one or more DEC102A51-US2 Digital Input/Output units.

- Native application or feature for this device.
- Dependent upon capabilities of the third party energy management system.
Controls that offer freedom to administrators

Freedom 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.

DCS601C71
- 64 groups (128 indoor units) connectable (128 groups with DCS601A72)
- Management of Daikin units and ancillary equipment
- Touch screen display
- Built-in Ethernet port, Web enabled (optional)
- Alarm e-mail function

IMP-128/256/512/768/1,024
- 1,024 indoor units (organized in up to 200 control groups)
- Management of Daikin units and ancillary equipment
- Operation on one master PC and one sub PC (sub PC option)
- Remote monitoring via the Web
- Alarm e-mail function

Connect VRV to your BMS via BACnet® or LonWorks® using Daikin’s integrated control system solutions.
Compatible with BACnet and LonWorks, the two leading open network communication protocols, the interfaces offered by Daikin provides a seamless connection between VRV and your BMS.

LonWorks®
LonWorks Network Compatible Interface
- Interface for LonWorks networks
- Communication via LON protocol (twisted pair wire)
- 64 units connectable per interface
- Unlimited site size
- Quick, easy installation

BACnet®
BACnet Network Compatible Interface
- Interface for Building Management Systems
- Communication via BACnet protocol (BACnet/IP)
- 256 units connectable per BACnet gateway (with DAM411B51)
- Unlimited site size
- Quick, easy installation
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.