



**ANY BUILDING. EVERY TIME.  
THE TECHNOLOGY AND EXPERTISE OF LENNOX® VRF.**





## **LENNOX® VRF FITS WHERE YOU WORK.**

Lennox® VRF is a flexible, versatile solution that is ideal for a wide range of structures and industries.

### **LODGING**

Allows guests to sleep soundly by enjoying lower sound levels and better temperature control made possible by Lennox® VRF.

### **HEALTHCARE**

Non-ducted indoor units help prevent cross contamination, while ducted units with industry-leading static pressure meet HEPA filtration needs.

### **OFFICE**

Lets every office and common area enjoy its own individual temperature control for better comfort and zoning.

### **RETAIL**

Eliminates temperature swings, yet still reacts to the changing heating and cooling demands throughout a typical sales day.

### **EDUCATION**

Creates a more effective learning environment by providing low sound levels, better temperature control and energy efficiency that saves budget dollars.

### **MULTI-FAMILY STRUCTURES**

Provides a high-efficiency, low-maintenance comfort solution that appeals to residents, while service-friendly equipment makes life simple for management.

### **DINING**

Gives diners and kitchen staff greater comfort through part-load operation, even with the diverse loading conditions a restaurant experiences during a typical day.

## **CONNECTING TECHNOLOGY WITH EXPERTISE.**

**When you select Lennox® VRF, you're making a very smart choice.**

**Because you're not only getting the benefits of VRF, you're also getting the benefits of the entire company behind it.**

### **HISTORY**

Lennox® VRF is supported by more than a century of heating and cooling experience. Lennox knows indoor comfort, inside and out.

### **QUALITY**

Lennox VRF has been extensively tested and proven to make sure it meets the exacting standards Lennox sets for reliability.

### **EXPERTISE**

When you select Lennox VRF, you're choosing technology backed by expertise. Lennox HVAC professionals understand the challenges faced by engineers and contractors in designing and specifying a heating and cooling system, which is why you'll find so many resources available.

#### **The Lennox VRF App**

Full of helpful tools for contractors, including a refrigerant charge calculator, error code database and even instructional how-to videos created by HVAC experts.

#### **The Lennox VRF Website**

LennoxVRF.com contains a wealth of helpful resources to help commercial dealers on every job. Sections on the site include product information, technical documents, specifications, engineering handbooks and a sign-up area for VRF training from Lennox.



## LENNOX® VRF AT A GLANCE

Advantages to every customer and every project.



### INVERTER TECHNOLOGY

Adjusts compressor speed based on heating and cooling demand for reduced energy use.



### IMPROVED HEAT TRANSFER

With hydrophilic fins and rifled copper tubing.



### ADVANCED DEFROST CYCLE

A shorter defrost cycle preserves warmth and comfort in cooler weather. Heat recovery systems are capable of providing continuous heating during the defrost cycle.



### DC FAN MOTORS

Provide greater efficiency and energy savings over standard AC motors.



### SIMPLIFIED WIRING SCHEME

Daisy-chained, low-voltage control wiring simplifies installation and reduces time and labor costs.





### INNOVATIVE FAN

Blade design engineered for lower noise levels.



### FASTER MAINTENANCE

Simple to clean the coils and change the filter.



### SIMPLE TO SERVICE

With a hinged electrical control box and front-mounted compressor for easy access.



### WIDE RANGE OF INDOOR UNITS

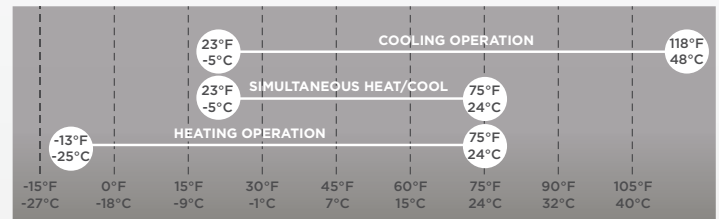
Lennox® VRF works with many different floor plans and structural designs.

## ADAPTS TO A WIDE VARIETY OF BUILDINGS AND PROJECTS

The Lennox VRF system is incredibly efficient and flexible. Each zone can have its own dedicated fan coil unit, all of which share a common condensing unit. With flexible system piping lengths, condensing units can be located wherever space is available.

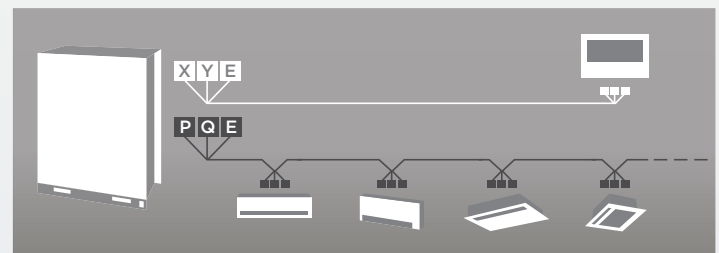
Many different indoor unit configurations are available with Lennox VRF, allowing the system to easily integrate with any number of interior designs.

## AMBIENT TEMPERATURE OPERATING RANGE



Lennox VRF works in heating mode down to a temperature of -13° F (-25°C), and cools in temperatures up to 118.4°F (48°C).

## DAISY-CHAINED COMMUNICATIONS



For easier installation and setup, communication wiring can be shared by multiple indoor and outdoor units.

## OUTDOOR UNITS

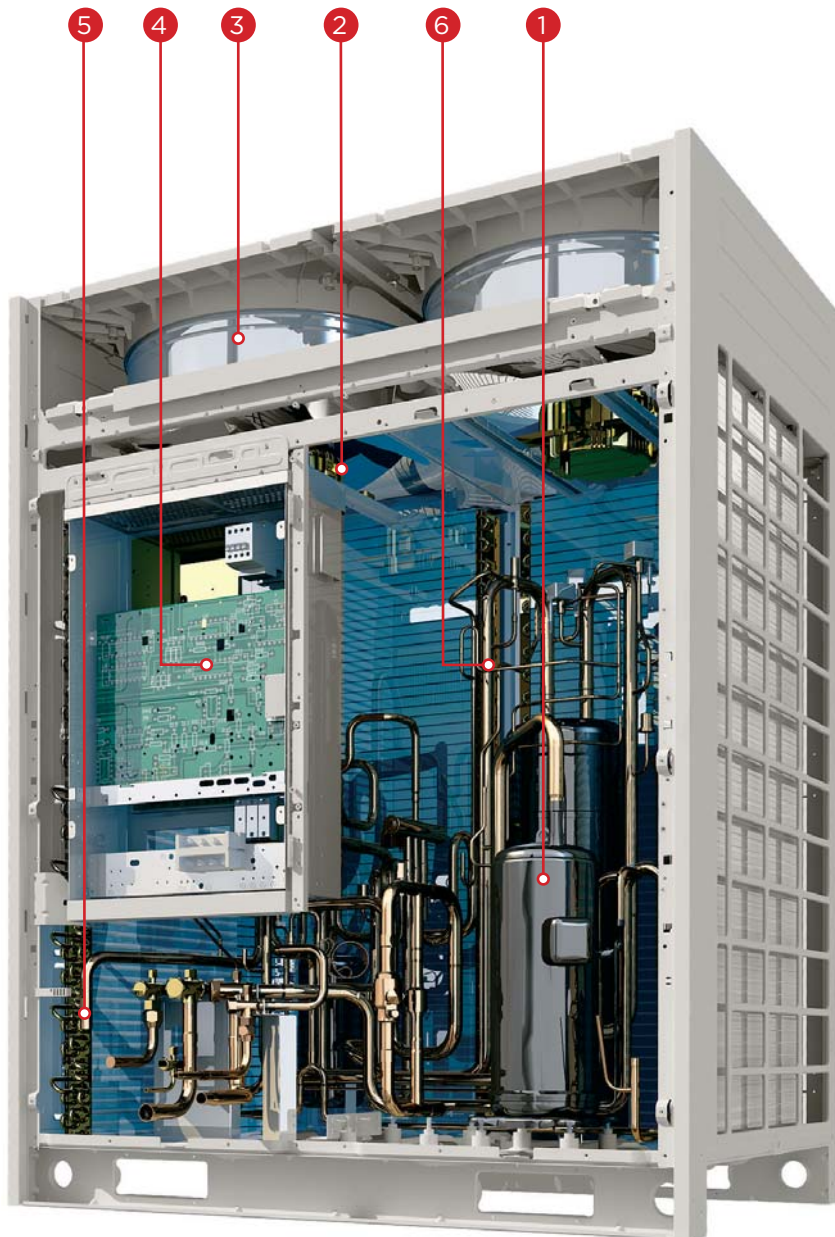
Smart design features are found throughout each outdoor unit, designed to save energy, increase convenience and extend equipment life.

### FLEXIBLE SYSTEM LAYOUT

Outdoor units can connect with up to 3,280 ft. (1000m) of piping to accommodate even the largest structures and projects.

### ENERGY-SMART NIGHT MODE

Outdoor units can be set to run at reduced speeds at night for even greater efficiency and reduced noise levels.



### 1 DC INVERTER COMPRESSORS

Lennox® VRF utilizes only inverter-driven compressors to maximize efficiency and system longevity. A 2 Hz frequency step allows the system to operate at the required capacity with greater precision, for fine-tuned comfort and greater energy savings.

### 2 DC FAN MOTORS

Highly efficient DC fan motors power condensing unit fans, with 18 different speeds for precise airflow control and greater efficiency than standard AC motors.

### 3 ASYMMETRIC FAN BLADE DESIGN

A specially engineered fan blade design optimizes airflow while reducing noise. Lennox VRF also utilizes dissimilar fan blades to eliminate in-phase “pulsing” and minimize sound levels.



**4 HINGED ELECTRICAL BOX**

Allows quick and easy access to piping and valves for faster service and troubleshooting.


**5 ADVANCED DEFROST CYCLE**

Heat recovery systems in the Lennox VRF line use a split-coil defrost cycle that allows the system to provide heat even when defrosting. Heat pump systems use an accelerated complete-coil defrost that can last as little as four minutes.

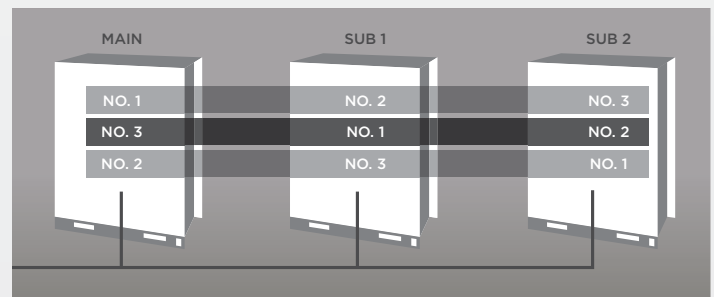
**6 RIFLED COPPER TUBING**

Works with hydrophilic fins for greater heat transfer, efficiency and performance.

**OUTDOOR UNITS BY TONNAGE**

		
<i>VRA Heat Recovery Outdoor Unit</i>	<i>VPA Heat Pump Outdoor Unit</i>	<i>Mini-VRF Heat Pump Outdoor Unit</i>
<i>6-36 Tons Capacity</i>	<i>6-36 Tons Capacity</i>	<i>3-4 Tons Capacity</i>

**INTELLIGENT LEAD/LAG OPERATION**



Systems with multiple condensing units will cycle the lead condensing unit operation upon startup to extend system life. In the event that a fault is detected in the master unit, one of the other condensing units can be configured as the master unit, allowing the system to continue operation.

## INDOOR UNITS

Lennox® VRF systems include a wide selection of indoor units, each offering a different form factor to accommodate different building designs and construction needs. Every indoor unit contains smart features to increase efficiency and functionality:

### AUTO RESTART

Restores operation after power failure.

### AUTO ADDRESSING

Heat pump and mini-VRF systems automatically assign indoor unit addresses upon startup. Heat recovery systems can be addressed quickly and easily using the handheld wireless controller.

### DRY MODE

Indoor units operate with greater humidity control and comfort.

### WASHABLE FILTER

Helps preserve indoor air quality while reducing waste.

### WASHABLE PANEL

Keeps appearance neat and clean.

### PRE-HEAT FUNCTION

Prevents air from circulating during heating mode until the indoor coil has sufficiently warmed.

### REMOTE ON/OFF

Provides convenience and energy savings.

### ERROR STATUS

Alerts the user if a fault is detected or maintenance is needed.







**VWMA  
WALL MOUNT**

**FLEXIBLE INSTALLATION**

Refrigerant piping can be routed to the left, right or rear

**AUTO-SWING LOUVER**

Automatically redirects air based on mode selected

**QUIET OPERATION**

Noise levels as low as 29 dB



**V22A  
COMPACT 360°  
CASSETTE**

**360° AIR OUTLET**

Provides uniform temperature distribution

**COMPACT CASING**

Fits directly into a lay-in ceiling grid, while reducing installation space requirements above the ceiling

**INTEGRAL  
CONDENSATE PUMP**

Removes moisture quickly and conveniently



**V33A  
360° CASSETTE**

**360° AIR OUTLET**

Provides uniform temperature distribution

**OUTSIDE AIR  
CONNECTION**

Allows ventilation air to be induced directly into the unit

**INTEGRAL  
CONDENSATE PUMP**

Removes moisture quickly and conveniently

**DC MOTOR**

Available in a DC motor configuration for maximum energy efficiency



**VCFA  
CEILING AND  
FLOOR MOUNT**

**FLEXIBLE INSTALLATION**

Installs either vertically or horizontally

**VERTICAL AND  
HORIZONTAL  
AUTO SWING**

Ensures better airflow distribution

**COMPACT INSTALLATION**

Less than 8.5" (216mm) in height



**VHIA  
HIGH-STATIC  
DUCTED**

**HIGH STATIC PRESSURE**

Industry-leading static pressure up to 1.13"

**LOW PROFILE HEIGHT**

For space-saving applications

**OPTIONAL  
CONDENSATE PUMP**

Removes moisture quickly and conveniently



**VMDA  
MEDIUM-STATIC  
DUCTED**

**COMPACT INSTALLATION**

A height of only 8.25" (210mm) makes this unit ideal when space above the ceiling is limited

**INTEGRAL  
CONDENSATE PUMP**

Removes moisture quickly and conveniently

**DC MOTOR**

Available in a DC motor configuration with increased static pressure capabilities



**VVCA  
VERTICAL AIR  
HANDLING UNIT**

**ECM MOTOR**

For maximum energy efficiency

**MULTI-POSITION**

Install vertically or in horizontal-right or horizontal-left orientations for maximum flexibility

**OPTIONAL ELECTRIC HEAT**

Up to 20kW

## MODE SELECTION BOXES

Save energy, reuse heat and maximize comfort with a Mode Selection Box.

The Mode Selection Box is the key to heat recovery operation. By routing either liquid or discharge gas to each indoor unit, the Mode Selection Box allows independent heating and cooling in each unit.

Liquid, suction and hot-gas refrigerant piping are connected to the outdoor unit side of the Mode Selection Box. The proper refrigerant phases are then routed to each individual set of indoor unit refrigerant ports, allowing each indoor unit to operate in heating or cooling mode independently.

Mode Selection Boxes are available in 2-port, 4-port and 6-port options, for connecting up to 24 indoor units to a single box.

### OUTSTANDING EFFICIENCY IN EVERY ROOM

The Mode Selection Box is key to Lennox® VRF heat recovery systems' industry-leading efficiency. The systems boast the highest Simultaneous Cooling & Heating Efficiency (SCHE\*\*) numbers of any VRF manufacturer, up to **50% higher** than competitors with similar equipment.

			
<b>MODEL V8MSBB01*</b> 1-PORT (Twinned)	<b>MODEL V8MSBB02</b> 2-PORT	<b>MODEL V8MSBB03</b> 4-PORT	<b>MODEL V8MSBB04</b> 6-PORT

\*V8MSBB01 is used for single indoor units with a capacity greater than 54,000 Btu/h.

\*\*SCHE is defined by AHRI Standard 1230 as the ratio of the total capacity of the system (heating and cooling capacity) to the effective power when operating in the heat recovery mode.



## CONTROLS

Lennox® VRF equipment is flexible in its comfort control, and its applications. With multiple control options and accessories available, it can be customized to create an ideal environment in every room, in any season.



### LVM CENTRALIZED CONTROL:

A single touchscreen control to monitor and adjust every unit in a Lennox VRF system. Access through mobile and desktop devices to put total control of the entire system at your fingertips, including full time-of-day scheduling, error code and status history, and more.

### THE LVM FEATURES:

- Centralized monitoring and control for up to 1,024 indoor units and 64 systems
- Available in 15- or 12-inch touchscreen
- Standard with web access



#### PROGRAMMABLE WIRED CONTROLLER

VOSTAT51P



#### SIMPLE WIRED CONTROLLER

VOSTAT54P



#### WIRELESS REMOTE CONTROLLER

VOSTAT52P



#### INDOOR UNIT CENTRALIZED CONTROLLER

VOCTRL75P

## CONTROLS ACCESSORIES

Lennox VRF offers accessories for controls to meet the unique needs of your project.

### BACNET® GATEWAY

VOCTRL86P

### HOTEL KEY CARD INTERFACE

VOCTR88OP

### INFRARED SENSOR

VOSNSR78P

### AUXILIARY HEAT RELAY

VOCTRL90P

### REMOTE-MOUNTED RETURN AIR THERMISTOR FOR INDOOR UNITS

VOSNSR00P

### LONWORKS® GATEWAY

VOCTRL87P

**LENNOX® VRF. CONTINUING A LEGACY  
OF EXCEPTIONAL HVAC.**

When Dave Lennox created his first riveted-steel furnace in 1895, it started our company on a journey of innovation in heating and cooling. A journey which has led to Lennox® VRF, the latest example of our ongoing commitment to efficiency, adaptability and superb indoor comfort.

When you select Lennox VRF, you're not only getting an incredibly flexible, energy-efficient system, you're also tapping into the extensive expertise that only Lennox can offer.

In addition, financing options through Lennox Commercial Financing<sup>SM</sup> help put Lennox VRF in reach of nearly any business.

For more information, visit us at [www.LennoxVRF.com](http://www.LennoxVRF.com), or contact us at 1-844-GET-VRF1.

