



# REVIT CONTENT GUIDE

**Manufacturer:** Lennox Industries Inc.  
**File:** Lennox-VRF-Double\_Unit-VRA-2P\_Series.rfa  
**Type Catalog:** Not Applicable  
**Rendering file:** Not Applicable  
**Schedule file:** Schedule - Lennox-VRF-Double\_Unit-VRA-2P\_Series.rvt



## Instance Properties

Adsk Model Properties	
Accessory Part Number*	No Accessory Selected
Construction	
Hail Guard Kits	<input type="checkbox"/>
Electrical	
Apparent Load Left Unit*	6988.80 VA
Apparent Load Right Unit*	6988.80 VA
Maximum Overcurrent Protection Left Unit*	50.00 A
Maximum Overcurrent Protection Right Unit*	50.00 A
Minimum Circuit Ampacity Left Unit*	33.60 A
Minimum Circuit Ampacity Right Unit*	33.60 A
Voltage*	208.00 V
Voltage is 208	<input checked="" type="checkbox"/>
Voltage is 230	<input type="checkbox"/>
Voltage is 460	<input type="checkbox"/>
Dimension	
Depth*	765.000
Height*	1603.000
Width*	2618.000
Graphics	
Has Clearance Areas*	<input checked="" type="checkbox"/>
Has No Fly Zone*	<input checked="" type="checkbox"/>
Identity Data	
Equipment Number*	
Part Description*	145000 Btu/h Heat Recovery VRF Double Outdoor Unit 60 Hz
Part Number*	VRA145H4M-2Y
Structural	
Weight*	1270.000 lb

## Type Properties

The family contains the following 7 types:

- 216000 Btu/h (Values for this type are shown below)
- 145000 Btu/h
- 168000 Btu/h
- 192000 Btu/h
- 240000 Btu/h
- 264000 Btu/h

<b>Constraints</b>	
Default Elevation	1219.200
<b>Electrical</b>	
Frequency*	60.00 Hz
Load Classification*	Other
Number of Poles*	1
Power Factor*	1.000000
<b>General</b>	
Sound Pressure Level*	62.000000
<b>Identity Data</b>	
Copyright*	©2017 Lennox Industries Inc.
Date Created*	August 16, 2017
Date Modified*	August 16, 2017
Description*	See Part Description
Equipment Abbreviation*	OD
Family Version*	1.0
Manufacturer*	Lennox Industries Inc.
Model*	See Part Number
Model Disclaimer*	For more information contact Lennox Industries Inc.
Product Documentation Link*	<a href="http://www.lennoxcommercial.com/landing/vrf/resources.asp">http://www.lennoxcommercial.com/landing/vrf/resources.asp</a>
Product Page URL*	<a href="http://www.lennoxcommercial.com/landing/vrf/products/vra-heat-recovery">http://www.lennoxcommercial.com/landing/vrf/products/vra-heat-recovery</a>
Type Image	-1
URL*	<a href="http://www.lennox.com/">http://www.lennox.com/</a>
<b>Materials</b>	
Product Material*	6655
<b>Mechanical</b>	
Left Unit High Pressure Gas Balance Flow	0.000 GPM
Left Unit High Pressure Gas Flow	0.000 GPM
Left Unit Liquid Flow	0.000 GPM
Left Unit Low Pressure Gas Flow	0.000 GPM
Left Unit Oil Balance	0.000 GPM
Right Unit High Pressure Gas Balance	0.000 GPM
Right Unit High Pressure Gas Flow	0.000 GPM
Right Unit Liquid	0.000 GPM
Right Unit Low Pressure Gas	0.000 GPM
Right Unit Oil Balance	0.000 GPM
Total Cooling Capacity*	136000.00 Btu/h
Total Heating Capacity*	154000.00 Btu/h

Halftone text in the property tables indicates that the value is locked from editing.

\*Indicates Shared Parameter and can be scheduled

## Loading and Placing into the Project

One "Mechanical Equipment" family is supplied and may be loaded into Revit through all traditional methods. Using the visibility settings of the view that is intended for placement ensure that the Mechanical Equipment category is visible.

The heat pump requires a work-plane host to be placed within the project (i.e. floor). All product geometry is off in plan view; when placed the heat pump will be represented by a masking region.

## Project Behavior

Within the type and instance properties dialogues the user will find useful information for scheduling purposes such as Height, Width, Depth, Load Classification, Total Heating Capacity, and other unique properties to the heat pump. In the "Identity Data" parameter category the user will find information specific to Lennox and the model such as copyright information, part description, part number, product page URL and other information to further define the family.

Once the heat pump has been placed in a project using the method above it may be custom configured. By going through the configuration options the part number and electrical data for the model will update appropriately to allow for accurate scheduling and specifying.

The family contains an electrical connector and may be connected to a circuit within the project. The connector is mapped to electrical parameters within the family.

The family contains pipe connections to allow pipe to be drawn from the unit or to be connected to an existing system.

## Instance Parameter

In the “Instance Parameters” of the model the user has the following options to modify:

- Equipment Number - For tagging separately placed instances.
- Hail Guard Kits - For selecting to include the hail guard kits.
- Has Clearance Areas - For toggling the visibility of the clearance areas.
- Has No Fly Zone - For toggling the visibility of the no fly zone (overhead clearance).
- Voltage is ... - For selecting the desired voltage configuration (208, 230, 460).

## Type Parameter

Because the heat pump represents a manufactured product the type parameters within the family should not be modified for Standard configuration. Please note:

- Product Page URL - Directs to the manufacturer’s online listing of the product.
- Product Documentation Link - Directs to the product’s online specification sheet.
- Equipment Abbreviation - This parameter exists for filtering schedules. \* See scheduling description below.
- Family Version - Lists the current revision number of the family.

## Visibility

For best performance within a project all model geometry is turned off in Plan View when placed in the product’s intended orientation. The geometry is then visible in perpendicular views and a masking region is visible in plan view. For ease of use all geometry is assigned to the category Mechanical Equipment.

## Rendering

When the family is loaded into a project standard Lennox materials are imported. The materials may be modified though ensure that the modified selection matches an actual manufacturer supplied option.

## Schedule Creation

Lennox products may be scheduled utilizing the schedule view in the provided project file. Select and copy (Ctrl+C) the schedule from the sheet view and paste it (Ctrl+V) into a sheet in your project. The schedule filters are set to look for families with Manufacturer as “Lennox Industries Inc.” and Equipment Abbreviation as “OD”.