


Variable Refrigerant Flow

Two-Pipe Heat Recovery
and Heat Pump Systems



 United Technologies

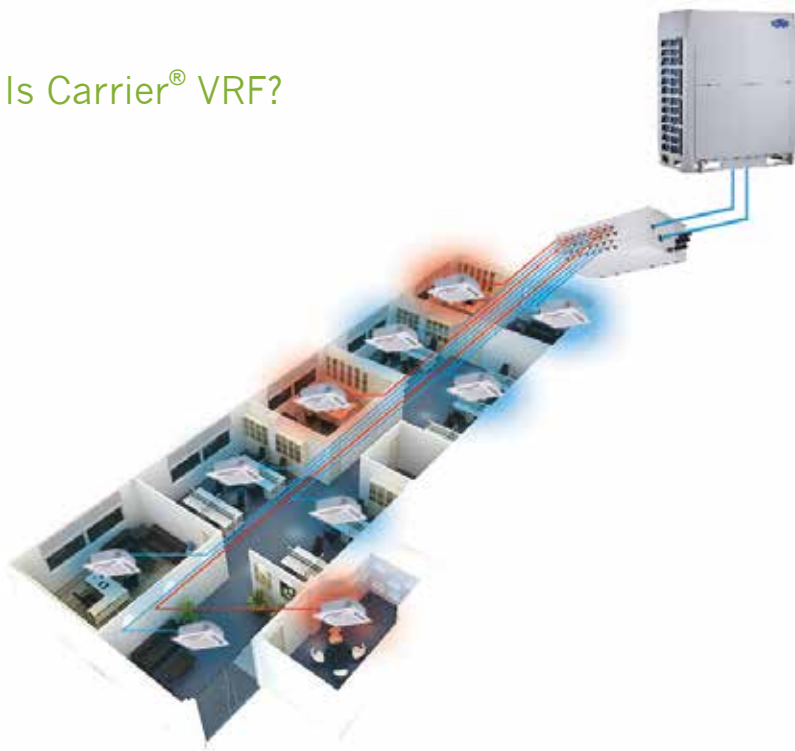
turn to the experts 



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What Is Carrier® VRF?





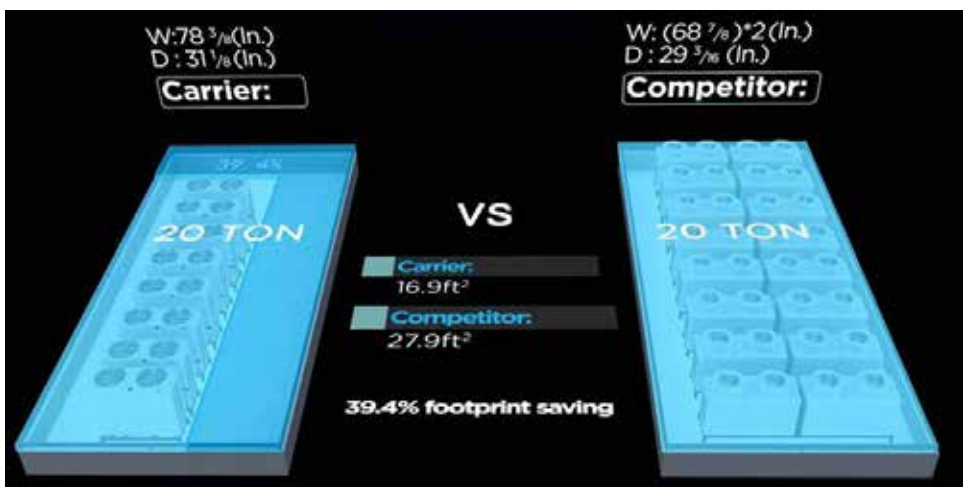
Carrier® VRF Advantages

Suitable to precisely match the building's cooling and heating demands, Carrier® VRF systems utilize a 2-pipe system for both heat recovery and heat pump. A single outdoor VRF condenser can power up to 64 independent indoor units, depending on the system. This provides superior zoning because the refrigerant flow can vary from location to location, delivering only the necessary capacity to each zone. The system adjusts the flow of refrigerant to each indoor unit based on its operating conditions. It computes the amount of refrigerant required by each indoor unit and controls the refrigerant flow to ensure desired comfort level for each and every room.



Smaller Footprint

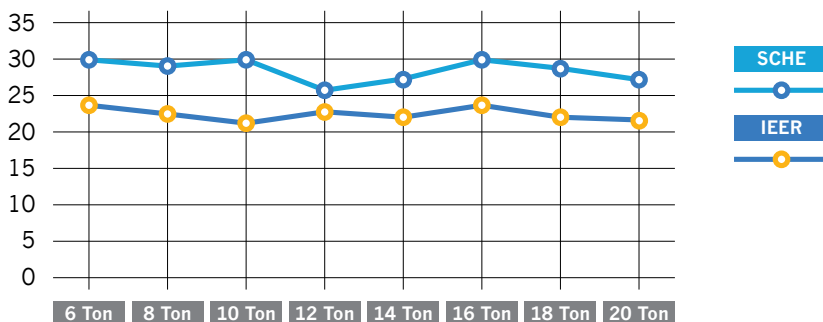
VRF systems provide several installation advantages by eliminating the need to install large distribution fans, water pumps and large pipes. VRF systems do not require dedicated maintenance rooms or service shafts, freeing up valuable real estate space in the buildings where they're installed. The Carrier® VRF heat recovery 20-ton system is 40 percent smaller compared to other VRF outdoor units in the marketplace.



High Efficiency

Carrier VRF achieves high efficiency in cooling and heating by utilizing all DC Inverter compressors, all DC fan motors and high-efficiency heat exchangers. The cooling IEER is 24.7, and heating SCHE is up to 30.0.

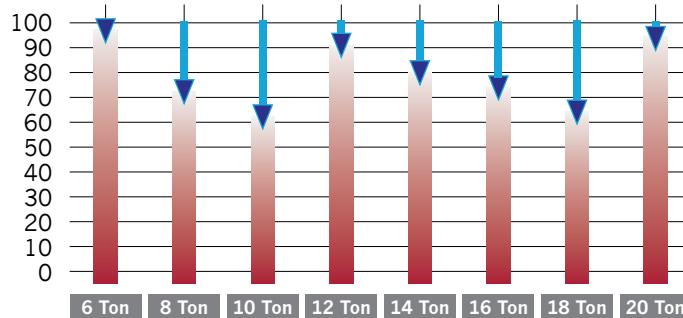
Carrier HR VRF with Non-Ducted Indoor Units under AHRI rating



High Heating Performance

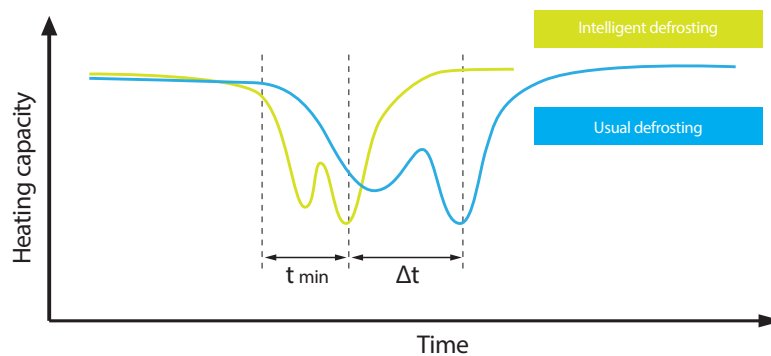
The Carrier® VRF system provides heating down to -13° F with up to 70% of the rated heating capacity. This is just one more way we deliver comfort solutions for any indoor space, anytime of the year.

Performance Ratio at 5° F



Enhanced Defrost Control

The enhanced defrost control can adjust the defrosting cycle time based on system operating environments. This reduces heat loss due to unnecessary defrost operation and maintains indoor heating consistency by using hot gas through bottom of coil in the outdoor unit.



Compressor

Occupants enjoy balanced, consistent comfort because the operating sequence of the outdoor units and the individual compressors are rotated to spread operating hours evenly. Because the compressors are all Inverter-driven, inrush currents are eliminated. There is no on/off power surge as the system adjusts to the demands of the occupant or system. And, the use of Inverter compressors reduces the risk of compressor failure, more common in standard non-Inverter systems. The outdoor unit provides greater backup capability in case of a compressor failure. If that happens, the failed compressor can be easily isolated while the system continues to operate, maintaining comfort until the faulty compressor is repaired or addressed.



Carrier® VRF Scroll Compressor

Asymmetric scroll compressor design reduces compression losses while increasing energy efficiency and reliability. The compression losses are minimized by applying fluid dynamic design principles. The compressors are equipped with cutting-edge DC Inverter technology and advanced permanent magnet DC motors, making them stable and robust.



Asymmetric scroll wrap

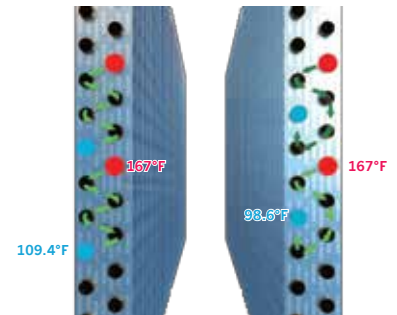
Symmetric scroll wrap



Carrier® VRF compressors are Inverter-driven, meaning they are capable of precisely matching the building's cooling and heating demands. Compressors operate the majority of the time within the most efficient frequency range, 50 ~ 80Hz.

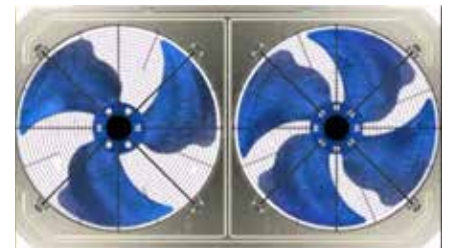
High Performance Heat Exchanger

The advanced heat exchanger design enlarges the heat-exchange area, decreasing the air resistance while the hydrophilic fins and inner-threaded copper pipes optimize heat-exchange efficiency.



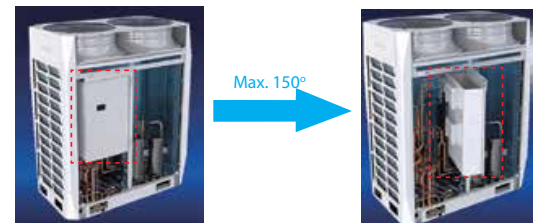
Advanced Silent Technology with Fan Blade Design

The outlet grille and shape of the fan blade decrease the running noise and lower down airflow resistance and vibration. Paired with the DC Inverter compressor, the condenser is extremely quiet with operation as low as 58.4 dB(A).



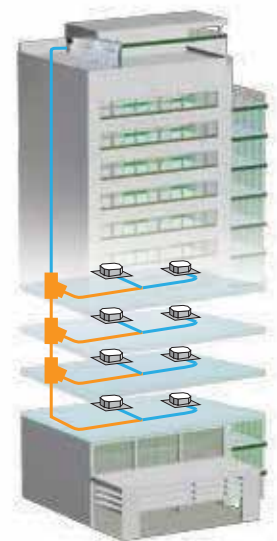
Hinged Electrical and Control Design

The electric control box can be rotated by a maximum of 150 degrees to make it much easier to dismount the control box and convenient for pipeline inspection or servicing.



Flexibility

Smaller equipment footprints matched with longer pipe lengths means there's a Carrier® VRF configuration for virtually any commercial or large residential application. Carrier VRF systems provide flexibility on reconfiguration of space for future use and can seamlessly adapt to building changes. Changing space can be easily accommodated with the different styles of indoor units without compromising the comfort level.



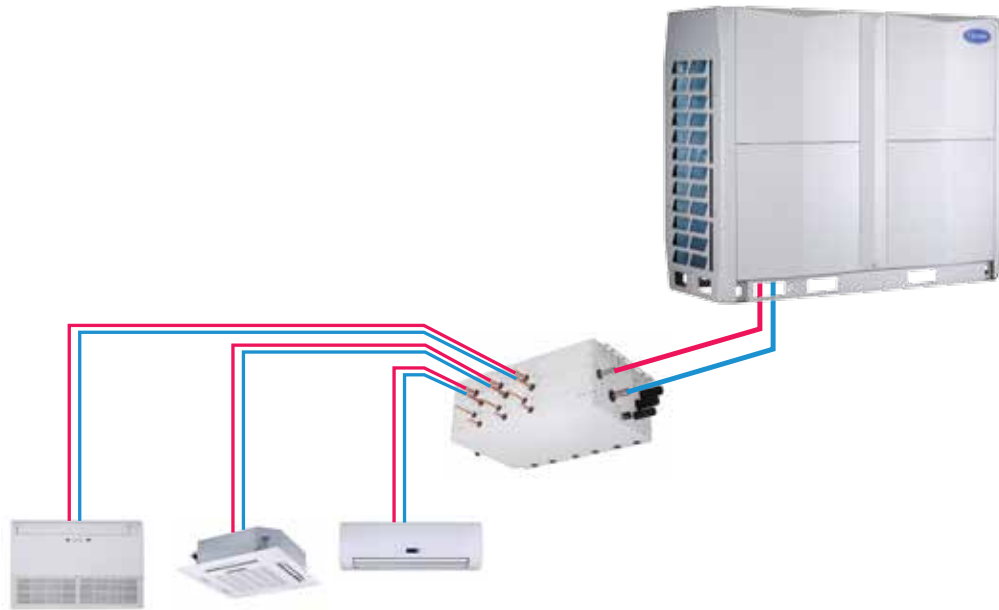
Reliability

The operating sequence of the individual compressors is rotated, balancing their operating hours and distributing load evenly. Inverters reduce the risk of compressor failure and eliminate on/off power surges.



Reduce Piping Connections

Two-pipe heat recovery system with innovative MDC provides simultaneous cooling and heating while reducing refrigerant pipe connections by reducing the number of joints between the outdoor unit and MDC. The centrally located MDC allows for the use of soft copper line sets, making installation simpler and faster.

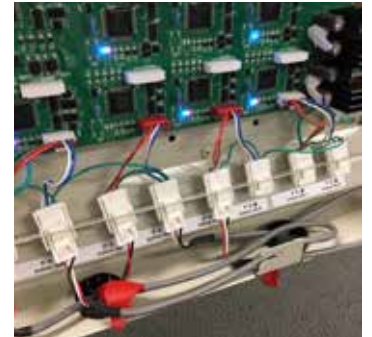


Single-Chassis Design (Heat Recovery Only)

The single-chassis design not only reduces the footprint of the outdoor unit, but also reduces electrical connections by providing a single-point power connection. Because of the non-modular design, there is no need to twin outdoor units together in the field, which reduces the amount of piping work that has to be done on site.

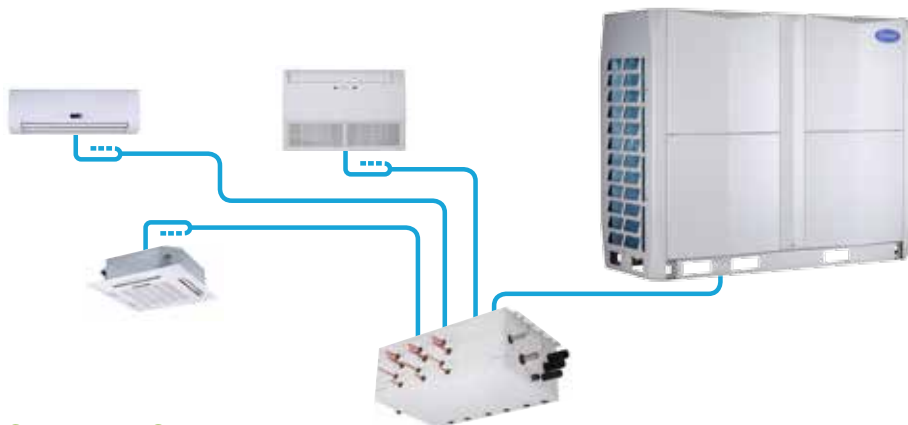
Controls Quick Connects

All indoor units and MDCs are provided with a quick-connect controls system. This allows for the use of accessory wire with preinstalled connectors or the use of field-provided wiring with the included terminal accessory. This makes the wiring of controls faster and helps to reduce miswiring during installation.



Controls Wiring Method/Design

The control wiring method was designed to more closely follow the piping arrangement. Heat pump systems use a daisy chain control wire configuration, while heat recovery systems use a hub and spoke design wiring from the outdoor unit to the MDC and then from the MDC to each indoor unit. This arrangement allows the control wire to follow the piping design, making it more intuitive for the contractor to install.

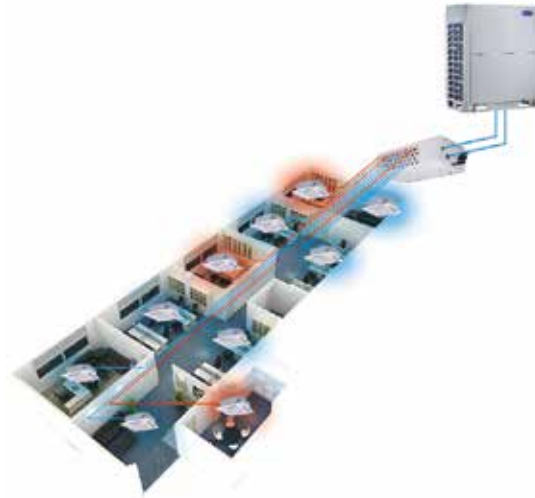


System Setup

There is no need to try to access tight spaces above a ceiling to adjust rotary dials or dip switches to address and set functions on indoor units. All functions can be set up from a handheld wireless remote control with all of the functions written in an easy-to-understand format, which greatly reduces the time needed for system setup and startup.

Heat Recovery and Simultaneous Heating & Cooling

Carrier® VRF heat recovery utilizes a 2-pipe system that allows for simultaneous heating and cooling. Heat recovery and flexible refrigerant flow make it possible to heat and cool different zones on a single refrigerant piping system at any given time. The system can increase efficiency by recovering energy that might otherwise be wasted from one zone, like a sunlit lobby, and reusing it in another cooler part of the building. The Carrier VRF heat recovery outdoor unit lineup is a single module up to 28 tons, which saves space compared to the competition. There are three different cabinet sizes available for this product line. Heat recovery boosts efficiency and green scores, making it ideal for regions with Energy Building Certification™ incentives or requirements.



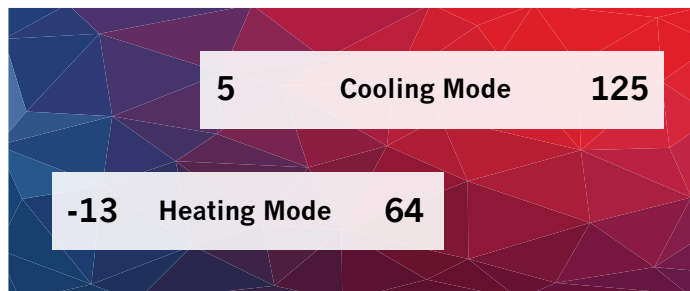
Multi-port Distribution Controller (MDC)

The heat recovery system uses a multi-port distribution controller which acts as a central location. This allows better refrigerant distribution to all indoor units. The multi-port distribution control can connect up to 32 different indoor units. These systems typically take less piping and connections to configure between outdoor unit, multi-port distribution and indoor units.



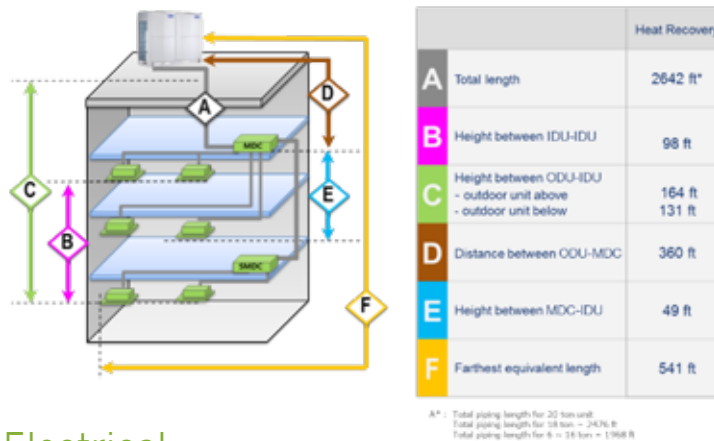
Operating Ranges

The operating ranges for Carrier® VRF heat recovery systems provide heating down to -13 degrees with cooling up to 125 degrees Fahrenheit.



Piping Length and Height Difference

The Carrier VRF heat recovery system includes the multi-port distribution controller that can be used as main or sub for greater piping flexibility. The main multi-port distribution controller can connect up to two sub multi-port distribution controllers to provide longer piping runs. A smaller equipment footprint matched with longer piping lengths allows delivery up to 2,642 feet, making it easier for design.



Electrical

Single-heat recovery system means single-point electrical connection. There is a tremendous amount of savings when you start comparing triple module units vs. single module units for the same tonnage. Servicing of the unit becomes easier as you only have one disconnect to switch off and lock out.

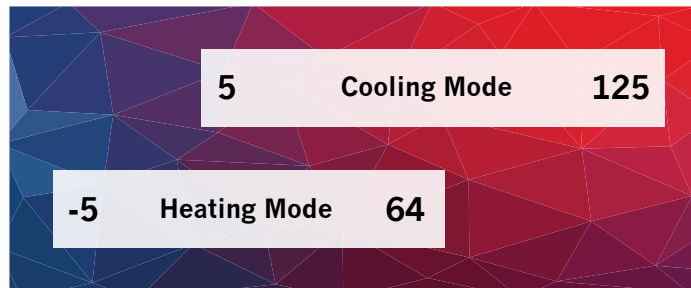
Heat Pump

Carrier® VRF heat pumps boast variable speed technology with multiple inverter compressors. This significantly improves system efficiency and reliability. Carrier VRF heat pump capacity ranges from 6 tons up to 36 tons in a modular design, available as single, double or triple module. Heat pump systems are great for applications that do not require heating and cooling at the same time, such as a big auditorium.



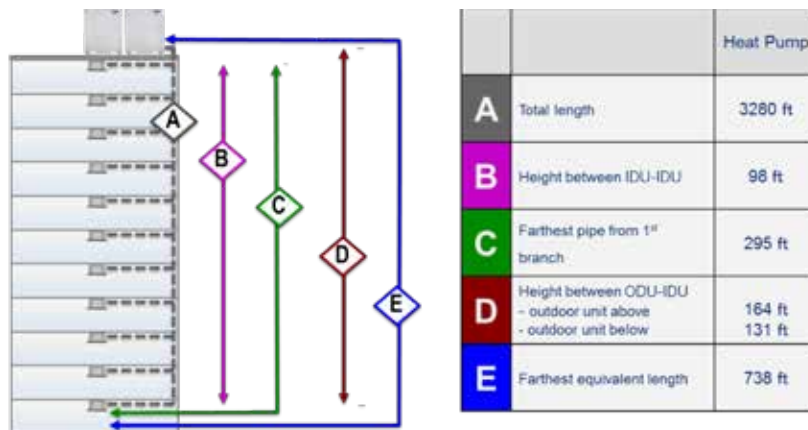
Operating Ranges

The operating ranges for Carrier® VRF heat pump systems provide heating down to -5 degrees with cooling up to 125 degrees Fahrenheit.



Piping Length and Height Difference

Carrier VRF heat pumps can deliver piping lengths of up to 3,280 feet. This leads to fewer limitations, making it much easier to design for floors with many small rooms, or for tenants who often rearrange their floor layouts. Y-shaped branching joints on the gas pipes between outdoor units ensure that refrigerant flow is equalized to each branch for enhanced system reliability.





Outdoor Units

Tons	Heat Recovery	Heat Pump Single-phase	Heat Pump		
	1 Module	1 Module	1	2	3
3		3			
4		4			
5		5			
6	6		6		
8	8		8		
10	10		10		
12	12		12		
14	14			8 + 6	
16	16			8 + 8	
18	18			10 + 8	
20	20			10 + 10	
22				12 + 10	
24				12 + 12	
26					10 + 8 + 8
28					10 + 10 + 8
30					10 + 10 + 10
32					12 + 10 + 10
34					12 + 12 + 10
36					12 + 12 + 12



Indoor Units

Non-Ducted Models	Cooling Capacity kBtu/h (Ton)	4-Way Cassette	Compact 4-Way Cassette	High Wall	Underceiling / Floor Console (Exposed)	Floor Console (Recessed)
	7,000		✓	✓		✓
	9,000	✓	✓	✓		✓
	12,000	✓	✓	✓	✓	✓
	15,000	✓	✓	✓	✓	✓
	18,000	✓		✓	✓	✓
	24,000	✓		✓	✓	✓
	30,000	✓		✓	✓	
	36,000	✓			✓	
	48,000	✓			✓	
	53,500					
	72,000					
	96,000					

Ducted Models	Cooling Capacity kBtu/h (Ton)	Low Static Duct (Slim Profile)	Medium Static Duct	High Static Duct	Vertical AHU	Outside Air Duct
	7,000	✓	✓			
	9,000	✓	✓			
	12,000	✓	✓			
	15,000	✓	✓			
	18,000	✓	✓		✓	
	24,000	✓	✓	✓	✓	
	30,000		✓	✓	✓	
	36,000		✓	✓	✓	✓
	48,000		✓	✓	✓	✓
	53,500			✓	✓	✓
	72,000			✓		✓
	96,000			✓		✓

38VMR Heat Recovery Outdoor Unit 208/230V-3-60

Appearance			
Nominal Tons	6	8	10
Model name	38VMA072RDS5-1	38VMA096RDS5-1	38VMA120RDS5-1

HEAT RECOVERY TECHNICAL SPECS

Single Module Technical Specifications

Outdoor unit model name				38VMA072RDS5-1	38VMA096RDS5-1	38VMA120RDS5-1
Nominal tons		Ton		6	8	10
Cooling capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	72	96	120
		Rated	kBtu/h	69	92	114
Heating capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	80	108	126
		Rated	kBtu/h	77	103	120
With non-ducted indoor units	Power supply (*2)			208/230V, 3-Phase, 60Hz		
	Cooling	Power consumption	kW	4.2	6.2	9.3
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	24.6	23.7	22.8
	Heating	Power consumption	kW	4.4	7.2	9.5
SCHE (Simultaneous Cooling & Heating Efficiency)		Btu/W	30.0	30.0	30.0	
With ducted indoor units	Power supply (*2)			208/230V, 3-Phase, 60Hz		
	Cooling	Power consumption	kW	5.0	7.1	9.5
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	24.2	24.3	23.2
	Heating	Power consumption	kW	5.7	8.0	9.8
SCHE (Simultaneous Cooling & Heating Efficiency)		Btu/W	27.4	27.7	26.7	
External dimensions	Height	in		64-3/8		
	Width	in		52-3/4		
	Depth	in		31-1/8		
Total weight	Unit	lb		672		
Compressor	Type/Quantity			Inverter-Driven Hermetic Scroll/1		
Fan unit	Air volume		cfm	6,900	7,600	8,100
Refrigerant (*3) (Charged refrigerant amount)			lb	26.5	26.5	26.5
Electrical specifications	Unit	MCA (*4)	A	43	45	46
		Recommended fuse size	A	45	50	50
Refrigerant piping	Connecting port diameter	Gas side (main pipe) (brazing)	in	3/4	7/8	1-1/8
		Liquid side (main pipe) (brazing)	in	5/8	3/4	3/4
Operation temperature range	Cooling		°F DB	5 to 125		
	Heating		°F WB	-13 to 64		
Maximum external static pressure			in WG	0.24		
Maximum number of connected indoor units				15	20	24
Maximum capacity of combined indoor units				50% to 150%		
Sound pressure level cooling/heating (*5)			dB(A)	58.4	61.7	62.7

Specifications subject to change.

(*1) Rated conditions.

Cooling: Indoor air temperature 80 °F dry bulb/67 °F wet bulb, outdoor air temperature 95 °F dry bulb.
Heating: Indoor air temperature 70 °F dry bulb, outdoor air temperature 47 °F dry bulb/43 °F wet bulb.

(*2) The source voltage must not fluctuate more than +/-10%.

(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).

(*5) These values, measured in anechoic chamber, at a point 1m in front of the unit at a height of 1.4m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

38VMR Heat Recovery Outdoor Unit 208/230V-3-60H

Appearance					
Nominal Tons	12	14	16	18	20
Model name	38VMA144DL5-1	38VMA168DS5-1	38VMA192DS5-1	38VMA216DS5-1	38VMA240DS5-1

Single Module

Technical Specifications

Outdoor unit model name			38VMA144DL5-1	38VMA168DS5-1	38VMA192DS5-1	38VMA216DS5-1	38VMA240DS5-1	
Nominal tons		Ton	12	14	16	18	20	
Cooling capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	144	168	192	216	234
		Rated	kBtu/h	136	158	182	204	220
Heating capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	160	188	215	243	257
		Rated	kBtu/h	150	180	204	222	236
With non-ducted indoor units	Power supply (*2)			208/230V, 3-Phase, 60Hz				
	Cooling	Power consumption	kW	9.0	11.9	14.7	16.8	19.7
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	24.4	23.1	23.9	23.0	22.4
	Heating	Power consumption	kW	9.6	13.3	16.2	18.0	20.2
SCHE (Simultaneous Cooling & Heating Efficiency)		Btu/W	26.5	27.0	28.2	27.3	27.0	
With ducted indoor units	Power supply (*2)			208/230V, 3-Phase, 60Hz				
	Cooling	Power consumption	kW	10.6	13.3	15.9	17.9	20.4
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	24.0	22.9	23.6	21.7	21.0
	Heating	Power consumption	kW	11.8	14.4	17.4	19.1	20.9
SCHE (Simultaneous Cooling & Heating Efficiency)		Btu/W	26.5	25.2	25.5	26.5	26.5	
External Dimensions	Height	in	64-3/8					
	Width	in	78-3/8					
	Depth	in	31-1/8					
Total weight	Unit	lb	1137					
Compressor	Type		Inverter-Driven Hermetic Scroll/2					
Fan unit	Air volume	cfm	10,100	10,100	11,300	12,300	12,300	
Refrigerant (*3) (Charged refrigerant amount)		lb	44.2	44.2	44.2	44.2	44.2	
Electrical specifications	Unit	MCA (*4)	A	70	70	71	81	81
		Recommended fuse size	A	80	80	80	90	90
Refrigerant piping	Connecting port diameter	Gas side (main pipe) (brazing)	in	1-1/8	1-1/8	1-1/8	1-1/8	1-3/8
		Liquid side (main pipe) (brazing)	in	7/8	7/8	7/8	1-1/8	1-1/8
Operation temperature range	Cooling	°F DB	5 to 125					
	Heating	°F WB	-13 to 64					
Maximum external static pressure		in WG	0.24					
Maximum number of connected indoor units			29	34	39	44	49	
Maximum capacity of combined indoor units			50% to 150%					
Sound pressure level cooling/heating (*5)		dB(A)	63.3	63.3	64.9	67.1	67.1	

38VMR Heat Recovery Outdoor Unit 460V-3-60

Appearance			
Nominal Tons	6	8	10
Model name	38VMA072RDS6-1	38VMA096RDS6-1	38VMA120RDS6-1

Single Module

Technical Specifications

Outdoor unit model name				38VMA072RDS6-1	38VMA096RDS6-1	38VMA120RDS6-1	
Nominal tons		Ton		6	8	10	
Cooling capacity (*1) (with non-ducted indoor units/ducted)	Nominal		kBtu/h	72	96	120	
	Rated		kBtu/h	69	92	114	
Heating capacity (*1) (with non-ducted indoor units/ducted)	Nominal		kBtu/h	80	108	126	
	Rated		kBtu/h	77	103	120	
With non-ducted indoor units	Power supply (*2)			460V, 3-Phase, 60Hz			
	Cooling	Power consumption		kW	4.2	6.2	9.3
		IEER (Integrated Energy Efficiency Ratio)		Btu/W	24.6	23.7	22.8
	Heating	Power consumption		kW	4.4	7.2	9.5
SCHE (Simultaneous Cooling & Heating Efficiency)		Btu/W	30.0	30.0	30.0		
With ducted indoor units	Power supply (*2)			460V, 3-Phase, 60Hz			
	Cooling	Power consumption		kW	5.0	7.1	9.6
		IEER (Integrated Energy Efficiency Ratio)		Btu/W	24.2	24.3	23.2
	Heating	Power consumption		kW	5.7	8.0	9.8
SCHE (Simultaneous Cooling & Heating Efficiency)		Btu/W	27.4	27.7	26.7		
External dimensions	Height		in	64-3/8			
	Width		in	52-3/4			
	Depth		in	31-1/8			
Total weight	Unit		lb	672			
Compressor	Type/Quantity		Inverter-Driven Hermetic Scroll/1				
Fan unit	Air volume		cfm	6,900	7,600	8,100	
Refrigerant (*3) (Charged refrigerant amount)			lb	26.5	26.5	26.5	
Electrical specifications	Unit	MCA (*4)		A	20	22	22
		Recommended fuse size		A	25	25	25
Refrigerant piping	Connecting port diameter	Gas side (main pipe) (brazing)		in	3/4	7/8	1-1/8
		Liquid side (main pipe) (brazing)		in	5/8	3/4	3/4
Operation temperature range	Cooling		°F DB	5 to 125			
	Heating		°F WB	-13 to 64			
Maximum external static pressure			in WG	0.24			
Maximum number of connected indoor units				15	20	24	
Maximum capacity of combined indoor units				50% to 150%			
Sound pressure level cooling/heating (*5)			dB(A)	58.4	61.7	62.7	

Specifications subject to change.

(*1) Rated conditions.

Cooling: Indoor air temperature 80 °F dry bulb/67 °F wet bulb, outdoor air temperature 95 °F dry bulb.

Heating: Indoor air temperature 70 °F dry bulb, outdoor air temperature 47 °F dry bulb/43 °F wet bulb.

(*2) The source voltage must not fluctuate more than +/-10%.

(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).

(*5) These values, measured in anechoic chamber, at a point 1m in front of the unit at a height of 1.4m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.



United Technologies
turn to the experts

38VMR Heat Recovery Outdoor Unit 460V-3-60

Appearance					
Nominal Tons	12	14	16	18	20
Model name	38VMA144DL6-1	38VMA168DL6-1	38VMA192DL6-1	38VMA216DL6-1	38VMA240DL6-1

Single Module

Technical Specifications

Outdoor unit model name			38VMA144RDL6-1	38VMA168RDL6-1	38VMA192RDL6-1	38VMA216RDL6-1	38VMA240RDL6-1	
Nominal tons		Ton	12	14	16	18	20	
Cooling capacity (*1) (with non-ducted indoor units/ducted)	Nominal	kBtu/h	144	168	192	216	236	
	Rated	kBtu/h	136	158	182	204	220	
Heating capacity (*1) (with non-ducted indoor units/ducted)	Nominal	kBtu/h	160	188	215	243	257	
	Rated	kBtu/h	150	180	204	222	236	
With non-ducted indoor units	Power supply (*2)		460V, 3-Phase, 60Hz					
	Cooling	Power consumption	kW	9.0	11.9	14.7	16.8	19.7
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	24.4	23.1	23.9	23.0	22.4
	Heating	Power consumption	kW	9.6	13.3	16.2	18.0	20.2
SCHE (Simultaneous Cooling & Heating Efficiency)		Btu/W	26.5	27.0	28.2	27.3	27.0	
With ducted indoor units	Power supply (*2)		460V, 3-Phase, 60Hz					
	Cooling	Power consumption	kW	10.6	13.3	15.9	17.9	20.4
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	24.0	22.9	23.6	21.7	21.0
	Heating	Power consumption	kW	11.8	14.4	17.4	19.1	20.9
SCHE (Simultaneous Cooling & Heating Efficiency)		Btu/W	26.5	25.2	25.5	26.5	26.5	
External Dimensions	Height	in	64-3/8					
	Width	in	78-3/8					
	Depth	in	31-1/8					
Total weight	Unit	lb	1,137					
Compressor	Type	Inverter-Driven Hermetic Scroll/2						
Fan unit	Air volume	cfm	10,100	10,100	11,300	12,300	12,300	
Refrigerant (*3) (Charged refrigerant amount)		lb	44.2	44.2	44.2	44.2	44.2	
Electrical specifications	Unit	MCA (*4)	A	35	35	35	38	38
		Recommended fuse size	A	40	40	40	40	40
Refrigerant piping	Connecting port diameter	Gas side (main pipe) (brazing)	in	1-1/8	1-1/8	1-1/8	1-1/8	1-3/8
		Liquid side (main pipe) (brazing)	in	7/8	7/8	7/8	1-1/8	1-1/8
Operation temperature range	Cooling	°F DB	5 to 125					
	Heating	°F WB	-13 to 64					
Maximum external static pressure		in WG	0.24					
Maximum number of connected indoor units			29	34	39	44	49	
Maximum capacity of combined indoor units			50% to 150%					
Sound pressure level cooling/heating (*5)		dB(A)	63.3	63.3	64.9	67.1	67.1	

40VMD Multi-port Distribution Controller for Heat Recovery

The Carrier® VRF multi-port distribution controller (MDC) allows you to connect from 6 to 16 indoor units based on number of ports. The main multi-port distribution controller can connect up to two sub multi-port distribution controllers.

Appearance				
Multi-ports	6	8	10	16
Model name	40VMD006M...3	40VMD008M...3	40VMD010M...3	40VMD016M...3

Main MDC		Technical Specifications			
Unit 40VMD		40VMD006M...3	40VMD008M...3	40VMD010M...3	40VMD016M...3
Power supply (V-Ph-Hz)		208/230-1-60			
Number of ports		6	8	10	16
Unit	Unit dimensions, W x H x D (in)	37 x 12-3/4 x 22-5/8			46-1/2 x 12-3/4 x 22-5/8
	Packing dimensions, W x H x D (in)	44-1/2 x 18 x 33-1/8			53-7/8 x 18 x 33-1/8
	Net/gross weight (lb)	132/205	137/209	143/216	190/269
Design pressure, high/low (psig)		580/320			
Connecting wiring	Power wiring	Sized Per NEC and Local Codes Based on Nameplate Electrical Data			
	Signal wiring	2-Core Stranded Shielded Twisted Pair Cable 20AWG-16AWG			
Condensate pipe diameter, OD (in)		1			
MCA (A)		0.73	0.89	1.05	1.54
Capacity per port	Kbtu	54			

Sub MDC		Technical Specifications			
Unit 40VMD		40VMD006S...3	40VMD008S...3	40VMD010S...3	40VMD016S...3
Power supply (V-Ph-Hz)		208/230-1-60			
Number of ports		6	8	10	16
Unit	Unit dimensions, W x H x D (in)	37 x 12-3/4 x 22-5/8			46-1/2 x 12-3/4 x 22-5/8
	Packing dimensions, W x H x D (in)	44-1/2 x 18 x 33-1/8			53-7/8 x 18 x 33-1/8
	Net/gross weight (lb)	126/168	130/203	137/209	183/262
Design pressure, high/low (psig)		580/320			
Connecting wiring	Power wiring	Sized Per NEC and Local Codes Based on Nameplate Electrical Data			
	Signal wiring	2-Core Stranded Shielded Twisted Pair Cable 20AWG-16AWG			
Condensate pipe diameter, OD (in)		1			
MCA (A)		0.69	0.85	1.01	1.49
Capacity per port	Kbtu	54 max			

38VMH Single-phase Heat Pump Outdoor Unit 208/230V-1-60

Appearance			
Nominal Tons	3	4	5
Model name	38VMA036HDS3-1	38VMA048HDS3-1	38VMA060HDS3-1

Technical Specifications

Outdoor unit model name				38VMA036HDS3-1	38VMA048HDS3-1	38VMA060HDS3-1	
Nominal tons		Ton		3	4	5	
Cooling capacity (*1) (with non-ducted indoor units/ducted)	Nominal		kBtu/h	36	48	60	
	Rated		kBtu/h	36	48	60	
Heating capacity (*1) (with non-ducted indoor units/ducted)	Nominal		kBtu/h	40	52.5	66	
	Rated		kBtu/h	40	52.5	66	
With non-ducted indoor units	Power supply (*2)		208/230V, 1-Phase, 60Hz				
	Cooling	Power consumption		kW	3.1	4.6	6.1
		SEER (Seasonal Energy Efficiency Ratio)		Btu/W	18.0	18.0	18.6
	Heating	Power consumption		kW	3.1	4.3	5.8
HSPF (Heating Seasonal Performance Factor)		Btu/W	9.2	9.2	9.6		
With ducted indoor units	Power supply (*2)		208/230V, 1-Phase, 60Hz				
	Cooling	Power consumption		kW	2.9	4.7	6.1
		SEER (Seasonal Energy Efficiency Ratio)		Btu/W	17.8	17.8	18.6
	Heating	Power consumption		kW	3.0	4.2	5.7
HSPF (Heating Seasonal Performance Factor)		Btu/W	9.6	9.6	10.0		
External dimensions	Height		in	52-1/4			
	Width		in	35-1/2			
	Depth		in	15-3/4			
Total weight	Unit		lb	220			
Compressor	Type/Quantity		Inverter-Driven Hermetic Rotary/1				
	Motor output		kW	13			
Fan unit	Motor output		W	90+90			
	Air volume		cfm	4,100			
Refrigerant (*3) (Charged refrigerant amount)			lb	8.6			
Electrical specifications	Unit	MCA (*4)		A	36	38	40
		Recommended fuse size		A	40	40	45
Refrigerant piping	Connecting port diameter	Gas side (main pipe) (brazing)		in	5/8		3/4
		Liquid side (main pipe) (brazing)		in	3/8		
Operation temperature range	Cooling		°F DB	5 to 118			
	Heating		°F WB	-13 to 64			
Maximum number of connected indoor units				5	7	9	
Maximum capacity of combined indoor units				50 to 130%			
Sound pressure level cooling/heating (*5)			dB(A)	58.7	60.1	60.7	

Specifications subject to change.

(*1) Rated conditions.

Cooling: Indoor air temperature 80 °F dry bulb/67 °F wet bulb, outdoor air temperature 95 °F dry bulb.
Heating: Indoor air temperature 70 °F dry bulb, outdoor air temperature 47 °F dry bulb/43 °F wet bulb.

(*2) The source voltage must not fluctuate more than +/-10%.

(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).

(*5) These values, measured in anechoic chamber, at a point 1m in front of the unit at a height of 1.4m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

38VMH Heat Pump Outdoor Unit 230V-3-60

Appearance				
Nominal Tons	6	8	10	12
Model name	38VMA072HDS5-1	38VMA096HDS5-1	38VMA120HDS5-1	38VMA144HDS5-1

Single Module

Technical Specifications

Outdoor unit model name			38VMA072HDS5-1	38VMA096HDS5-1	38VMA120HDS5-1	38VMA144HDS5-1	
Nominal tons		Ton	6	8	10	12	
Cooling capacity (*1) (with non-ducted indoor units/ducted)	Nominal	kBtu/h	72	96	120	144	
	Rated	kBtu/h	69	92	112	136	
Heating capacity (*1) (with non-ducted indoor units/ducted)	Nominal	kBtu/h	80	108	126	160	
	Rated	kBtu/h	77	103	120	150	
With non-ducted indoor units	Power supply (*2)		208/230V, 3-Phase, 60Hz				
	Cooling	Power consumption	kW	4.1	6.2	8.8	12.1
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	22.5	23.5	22.5	19.5
	Heating	Power consumption	kW	4.5	7.2	9.0	12.1
COP (Coefficient of Performance)		W/W	4.3	3.8	3.6	3.4	
With ducted indoor units	Power supply (*2)		208/230V, 3-Phase, 60Hz				
	Cooling	Power consumption	kW	5.1	7.5	9.6	12.3
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	23.6	23.0	21.9	19.5
	Heating	Power consumption	kW	5.6	8.0	9.8	12.6
COP (Coefficient of Performance)		W/W	3.9	3.6	3.5	3.4	
External dimensions	Height	in	64-3/8				
	Width	in	52-3/4				
	Depth	in	31-1/8				
Total weight	Unit	lb	659	659	659	780	
Compressor	Type/Quantity		Inverter-Driven Hermetic Scroll/1			Inverter-Driven Hermetic Scroll Compressor/2	
Fan unit	Air volume	cfm	7,650	7,650	8,250	8,830	
Refrigerant (*3) (Charged refrigerant amount)		lb	37.5	37.5	37.5	37.5	
Electrical specifications	Unit	MCA (*4)	A	45	46	46	70
		Recommended fuse size	A	50	50	50	80
Refrigerant piping	Connecting port diameter	Gas side (main pipe) (brazing)	in	7/8	7/8	1-1/8	1-1/8
		Liquid side (main pipe) (brazing)	in	3/8	3/8	1/2	1/2
		Balance pipe (brazing)	in	1/4	1/4	1/4	1/4
Operation temperature range	Cooling	°F DB	5 to 125				
	Heating	°F WB	-5 to 64				
Maximum external static pressure		in WG	0.24				
Maximum number of connected indoor units			13	16	20	26	
Maximum capacity of combined indoor units			50% to 135%				
Sound pressure level cooling/heating (*5)		dB(A)	62.5	63	63	65.5	

Specifications subject to change.

(*1) Rated conditions.

Cooling: Indoor air temperature 80 °F dry bulb/67 °F wet bulb, outdoor air temperature 95 °F dry bulb.

Heating: Indoor air temperature 70 °F dry bulb, outdoor air temperature 47 °F dry bulb/43 °F wet bulb.

(*2) The source voltage must not fluctuate more than +/-10%.

(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).

(*5) These values, measured in anechoic chamber, at a point 1m in front of the unit at a height of 1.4m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

38VMH Heat Pump Outdoor Unit 208/230V-3-60

Appearance						
Nominal Tons	14	16	18	20	22	24
Model name	38VMA164HDS5-1	38VMA192HDS5-1	38VMA216HDS5-1	38VMA240HDS5-1	38VMA264HDS5-1	38VMA288HDS5-1

Dual Module (Combined)

Technical Specifications

Combination model number			38VMA168HDS5-1	38VMA192HDS5-1	38VMA216HDS5-1	38VMA240HDS5-1	38VMA264HDS5-1	38VMA288HDS5-1	
Combination units			38VMA096HDS5-1	38VMA096HDS5-1	38VMA120HDS5-1	38VMA120HDS5-1	38VMA144HDS5-1	38VMA144HDS5-1	
Nominal tons			Ton	14	16	18	20	22	24
Cooling capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	168	192	216	240	264	288
		Rated	kBtu/h	156	176	196	214	246	270
Heating capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	188	216	234	252	286	320
		Rated	kBtu/h	180	206	224	240	270	300
With non-ducted indoor units	Power supply (*2)			208/230V, 3-Phase, 60Hz					
	Cooling	Power consumption	kW	11.0	12.9	15.3	18.6	23.9	27.0
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	22.0	21.5	20.5	20.0	19.0	18.0
	Heating	Power consumption	kW	12.4	14.7	16.7	18.4	22.8	26.0
COP (Coefficient of Performance)		W/W	3.8	3.8	3.6	3.5	3.3	3.2	
Electrical characteristics (Nominal) (*1)	Power supply (*2)			208/230V, 3-Phase, 60Hz					
	Cooling	Power consumption	kW	12.4	14.5	16.6	18.7	24.2	27.4
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	22.0	22.0	21.3	20.6	19.0	18.0
	Heating	Power consumption	kW	13.9	16.1	17.8	19.5	23.8	26.4
COP (Coefficient of Performance)		W/W	3.6	3.6	3.5	3.5	3.2	3.2	
External Dimensions	Height	in	64-3/8	64-3/8	64-3/8	64-3/8	64-3/8	64-3/8	
	Width	in	52-3/4 x 2	52-3/4 x 2	52-3/4 x 2	52-3/4 x 2	52-3/4 x 2	52-3/4 x 2	
	Depth	in	31-1/8	31-1/8	31-1/8	31-1/8	31-1/8	31-1/8	
Total weight	Unit	lb	659 x 2	659 x 2	659 x 2	659 x 2	780 + 659	780 + 780	
Compressor	Type/Quantity		Inverter-Driven Hermetic Scroll/2				Inverter-Driven Hermetic Scroll/3	Inverter-Driven Hermetic Scroll/4	
Fan unit	Air volume	cfm	7,650 x 2	7,650 x 2	8,250 + 7650	8,250 x 2	8,830 + 8,250	8,830 x 2	
Refrigerant (*3) (Charged refrigerant amount)		lb	37.5 x 2	37.5 x 2	37.5 x 2	37.5 x 2	37.5 x 2	37.5 x 2	
Electrical specifications	Unit	MCA (*4)	A	46 + 45	46 + 46	46 + 46	46 + 46	70 + 46	70 + 70
		Recommended fuse size	A	50 + 50	50 + 50	50 + 50	50 + 50	80 + 50	80 + 80
Refrigerant piping	Connecting port diameter	Gas side (main pipe) (brazing)	in	1-1/8	1-1/8	1-1/8	1-1/8	1-3/8	1-3/8
		Liquid side (main pipe) (brazing)	in	5/8	5/8	5/8	5/8	3/4	3/4
		Balance pipe (brazing)	in	1/4	1/4	1/4	1/4	1/4	1/4
Operation temperature range	Cooling	°F DB	5 to 125						
	Heating	°F WB	-5 to 64						
Maximum external static pressure		in WG	0.24						
Maximum number of connected indoor units			29	33	36	39	46	50	
Maximum capacity of combined indoor units			50% to 135%						
Sound pressure level cooling/heating (*5)		dB(A)	65	65	65	65	66.5	67.5	

Specifications subject to change.

(*1) Rated conditions.

Cooling: Indoor air temperature 80 °F dry bulb/67 °F wet bulb, outdoor air temperature 95 °F dry bulb.

Heating: Indoor air temperature 70 °F dry bulb, outdoor air temperature 47 °F dry bulb/43 °F wet bulb.

(*2) The source voltage must not fluctuate more than +/-10%.

(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).

(*5) These values, measured in anechoic chamber, at a point 1m in front of the unit at a height of 1.4m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

38VMH Heat Pump Outdoor Unit 208/230V-3-60

Appearance						
Nominal Tons	26	28	30	32	34	36
Model name	38VMA312HDS5-1	38VMA336HDS5-1	38VMA360HDS5-1	38VMA384HDS5-1	38VMA408HDS5-1	38VMA432HDS5-1

Triple Module (Combined)

Technical Specifications

Combination model number			38VMA312HDS5-1	38VMA336HDS5-1	38VMA360HDS5-1	38VMA384HDS5-1	38VMA408HDS5-1	38VMA432HDS5-1	
Combination units			38VMA120HDS5-1 38VMA096HDS5-1 38VMA096HDS5-1	38VMA120HDS5-1 38VMA120HDS5-1 38VMA096HDS5-1	38VMA120HDS5-1 38VMA120HDS5-1 38VMA120HDS5-1	38VMA120HDS5-1 38VMA120HDS5-1 38VMA120HDS5-1	38VMA144HDS5-1 38VMA144HDS5-1 38VMA120HDS5-1	38VMA144HDS5-1 38VMA144HDS5-1 38VMA144HDS5-1	
Nominal tons		Ton	26	28	30	32	34	36	
Cooling capacity (*1) (with non-ducted indoor units/ducted)	Nominal	kBtu/h	312	336	360	384	408	432	
	Rated	kBtu/h	284	304	326	356	380	400	
Heating capacity (*1) (with non-ducted indoor units/ducted)	Nominal	kBtu/h	342	360	378	412	446	480	
	Rated	kBtu/h	320	338	354	384	410	440	
With non-ducted indoor units	Power supply (*2)		208/230V, 3-Phase, 60Hz						
	Cooling	Power consumption	kW	24.1	27.0	30.5	34.9	38.6	40.7
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	20.0	19.0	17.5	18.0	17.5	17.0
	Heating	Power consumption	kW	25.9	28.5	31.0	33.7	36.1	38.9
COP (Coefficient of Performance)		W/W	3.4	3.31	3.2	3.2	3.2	3.2	
With ducted indoor units	Power supply (*2)		208/230V, 3-Phase, 60Hz						
	Cooling	Power consumption	kW	25.7	27.4	29.9	35.9	38.3	40.3
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	20.5	19.2	18.0	18.0	17.5	17.0
	Heating	Power consumption	kW	27.3	29.2	31.0	33.6	35.9	38.5
COP (Coefficient of Performance)		W/W	3.3	3.3	3.2	3.2	3.2	3.2	
External Dimensions	Height	in	64-3/8	64-3/8	64-3/8	64-3/8	64-3/8	64-3/8	
	Width	in	52-3/4 x 3	52-3/4 x 3	52-3/4 x 3	52-3/4 x 3	52-3/4 x 3	52-3/4 x 3	
	Depth	in	31-1/8	31-1/8	31-1/8	31-1/8	31-1/8	31-1/8	
Total weight	Unit	lb	659 x 3	659 x 3	659 x 3	780 + 659 x 2	780 x 2 + 659	780 x 3	
Compressor	Type/Quantity		Inverter-Driven Hermetic Scroll/3			Inverter-Driven Hermetic Scroll/4	Inverter-Driven Hermetic Scroll/5	Inverter-Driven Hermetic Scroll/6	
Fan unit	Air volume	cfm	8,250 + 7,650 x 2	8,250 x 2 + 7,650	8,250 x 3	8,830 + 8,250 x 2	8,830 x 2 + 8,250	8,830 x 3	
Refrigerant (*3) (Charged refrigerant amount)		lb	37.5 x 3	37.5 x 3	37.5 x 3	37.5 x 3	37.5 x 3	37.5 x 3	
Electrical specifications	Unit	MCA (*4)	A	46 + 46 + 46	46 + 46 + 46	46 + 46 + 46	70 + 46 + 46	70 + 70 + 46	70 + 70 + 70
		Recommended fuse size	A	50 + 50 + 50	50 + 50 + 50	50 + 50 + 50	80 + 50 + 50	80 + 80 + 50	80 + 80 + 80
Refrigerant piping	Connecting port diameter	Gas side (main pipe) (brazing)	in	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8
		Liquid side (main pipe) (brazing)	in	3/4	3/4	3/4	3/4	3/4	3/4
		Balance pipe (brazing)	in	1/4	1/4	1/4	1/4	1/4	1/4
Operation temperature range	Cooling	°F DB	5 to 125						
	Heating	°F WB	-5 to 64						
Maximum external static pressure		in WG	0.24						
Maximum number of connected indoor units			53	56	59	63	64	64	
Maximum capacity of combined indoor units			50% to 135%						
Sound pressure level cooling/heating (*5)		dB(A)	66.5	66.5	66.5	67	68.5	69	

Specifications subject to change.

(*1) Rated conditions. Cooling: Indoor air temperature 80 °F dry bulb/67 °F wet bulb, outdoor air temperature 95 °F dry bulb. Heating: Indoor air temperature 70 °F dry bulb, outdoor air temperature 47 °F dry bulb/43 °F wet bulb.

(*2) The source voltage must not fluctuate more than +/-10%.


(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).

(*5) These values, measured in anechoic chamber, at a point 1m in front of the unit at a height of 1.4m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

38VMH Heat Pump Outdoor Unit 460V-3-60

Appearance				
Nominal Tons	6	8	10	12
Model name	38VMA072HDS6-1	38VMA096HDS6-1	38VMA120HDS6-1	38VMA144HDS6-1

Single Module

Technical Specifications

Outdoor unit model name			38VMA072HDS6-1	38VMA096HDS6-1	38VMA120HDS6-1	38VMA144HDS6-1	
Nominal tons	Ton		6	8	10	12	
Cooling capacity (*1) (with non-ducted indoor units/ducted)	Nominal	kBtu/h	72	96	120	144	
	Rated	kBtu/h	69	92	112	136	
Heating capacity (*1) (with non-ducted indoor units/ducted)	Nominal	kBtu/h	80	108	126	160	
	Rated	kBtu/h	77	103	120	150	
With non-ducted indoor units	Power supply (*2)		460V, 3-Phase, 60Hz				
	Cooling	Power consumption	kW	4.1	6.2	8.8	12.1
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	22.5	23.5	22.5	19.5
	Heating	Power consumption	kW	4.5	7.2	9.0	12.1
COP (Coefficient of Performance)		W/W	4.3	3.8	3.6	3.4	
With ducted indoor units	Power supply (*2)		460V, 3-Phase, 60Hz				
	Cooling	Power consumption	kW	5.1	7.5	9.6	12.3
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	23.6	23.0	21.9	19.5
	Heating	Power consumption	kW	5.6	8.0	9.8	12.6
COP (Coefficient of Performance)		W/W	3.9	3.6	3.5	3.4	
External dimensions	Height	in	64-3/8				
	Width	in	52-3/4				
	Depth	in	31-1/8				
Total weight	Unit	lb	659	659	659	772	
Compressor	Type/Quantity		Inverter-Driven Hermetic Scroll/1			Inverter-Driven Hermetic Scroll/2	
Fan unit	Air volume	cfm	7,650	7,650	8,250	8,830	
Refrigerant (*3) (Charged refrigerant amount)		lb	37.5	37.5	37.5	37.5	
Electrical specifications	Unit	MCA (*4)	A	22	25	25	33
		Recommended fuse size	A	25	30	30	35
Refrigerant piping	Connecting port diameter	Gas side (main pipe) (brazing)	in	7/8	7/8	1-1/8	1-1/8
		Liquid side (main pipe) (brazing)	in	3/8	3/8	1/2	1/2
		Balance pipe (brazing)	in	1/4	1/4	1/4	1/4
Operation temperature range	Cooling	°F DB	5 to 125				
	Heating	°F WB	-5 to 64				
Maximum external static pressure		in WG	0.24				
Maximum number of connected indoor units			13	16	20	26	
Maximum capacity of combined indoor units			50% to 135%				
Sound pressure level cooling/heating (*5)		dB(A)	62.5	63	63	65.5	

Specifications subject to change.

(*1) Rated conditions.

Cooling: Indoor air temperature 80 °F dry bulb/67 °F wet bulb, outdoor air temperature 95 °F dry bulb.

Heating: Indoor air temperature 70 °F dry bulb, outdoor air temperature 47 °F dry bulb/43 °F wet bulb.

(*2) The source voltage must not fluctuate more than +/-10%.

(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).

(*5) These values, measured in anechoic chamber, at a point 1m in front of the unit at a height of 1.4m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

38VMH Heat Pump Outdoor Unit 460V-3-60

Appearance						
Nominal Tons	14	16	18	20	22	24
Model name	38VMA168HDS6-1	38VMA192HDS6-1	38VMA216HDS6-1	38VMA240HDS6-1	38VMA264HDS6-1	38VMA288HDS6-1

Dual Module (Combined)

Technical Specifications

Combination model number			38VMA168HDS6-1	38VMA192HDS6-1	38VMA216HDS6-1	38VMA240HDS6-1	38VMA264HDS6-1	38VMA288HDS6-1	
Combination units			38VMA096HDS6-1	38VMA096HDS6-1	38VMA096HDS6-1	38VMA120HDS6-1	38VMA120HDS6-1	38VMA144HDS6-1	
Nominal tons	Ton		14	16	18	20	22	24	
Cooling capacity (*1) (with non-ducted indoor units/ducted)	Nominal	kBtu/h	168	192	216	240	264	288	
	Rated	kBtu/h	156	176	196	214	246	270	
Heating capacity (*1) (with non-ducted indoor units/ducted)	Nominal	kBtu/h	188	216	234	252	286	320	
	Rated	kBtu/h	180	206	224	240	270	300	
With non-ducted indoor units	Power supply (*2)		460V, 3-Phase, 60Hz						
	Cooling	Power consumption	kW	11.0	12.9	15.3	18.6	23.9	27.0
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	22.0	21.5	20.5	20.0	19.0	18.0
	Electrical characteristics (Nominal) (*1)	Heating	Power consumption	kW	12.4	14.7	16.7	18.4	22.8
COP (Coefficient of Performance)			W/W	3.8	3.8	3.6	3.5	3.3	3.2
With ducted indoor units	Power supply (*2)		460V, 3-Phase, 60Hz						
	Cooling	Power consumption	kW	12.4	14.5	16.6	18.7	24.2	27.4
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	22.0	22.0	21.3	20.6	19.0	18.0
	Electrical characteristics (Nominal) (*1)	Heating	Power consumption	kW	13.9	16.1	17.8	19.5	23.8
COP (Coefficient of Performance)			W/W	3.6	3.6	3.5	3.5	3.2	3.2
External Dimensions	Height	in	64-3/8	64-3/8	64-3/8	64-3/8	64-3/8	64-3/8	
	Width	in	52-3/4 x 2	52-3/4 x 2	52-3/4 x 2	52-3/4 x 2	52-3/4 x 2	52-3/4 x 2	
	Depth	in	31-1/8	31-1/8	31-1/8	31-1/8	31-1/8	31-1/8	
Total weight	Unit	lb	659 x 2	659 x 2	659 x 2	659 x 2	772 + 659	772 + 772	
Compressor	Type/Quantity		Inverter-Driven Hermetic Scroll/2				Inverter-Driven Hermetic Scroll/3	Inverter-Driven Hermetic Scroll/4	
Fan unit	Air volume	cfm	7,650 x 2	7,650 x 2	8,250 + 7,650	8,250 x 2	8,250 + 8,830	8,830 x 2	
Refrigerant (*3) (Charged refrigerant amount)		lb	37.5 x 2	37.5 x 2	37.5 x 2	37.5 x 2	37.5 x 2	37.5 x 2	
Electrical specifications	Unit	MCA (*4)	A	25 + 22	25 + 25	25 + 25	25 + 25	33 + 25	33 + 33
		Recommended fuse size	A	30 + 25	30 + 30	30 + 30	30 + 30	35 + 30	35 + 35
Refrigerant piping	Connecting port diameter	Gas side (main pipe) (brazing)	in	1-1/8	1-1/8	1-1/8	1-1/8	1-3/8	1-3/8
		Liquid side (main pipe) (brazing)	in	5/8	5/8	5/8	5/8	3/4	3/4
		Balance pipe (brazing)	in	1/4	1/4	1/4	1/4	1/4	1/4
Operation temperature range	Cooling	°F DB	5 to 125						
	Heating	°F WB	-5 to 64						
Maximum external static pressure	in WG		0.24						
Maximum number of connected indoor units			29	33	36	39	46	50	
Maximum capacity of combined indoor units			50% to 135%						
Sound pressure level cooling/heating (*5)		dB(A)	65	65	65	65	66.5	67.5	

Specifications subject to change.

(*1) Rated conditions.

Cooling: Indoor air temperature 80 °F dry bulb/67 °F wet bulb, outdoor air temperature 95 °F dry bulb.

Heating: Indoor air temperature 70 °F dry bulb, outdoor air temperature 47 °F dry bulb/43 °F wet bulb.

(*2) The source voltage must not fluctuate more than +/-10%.

(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).

(*5) These values, measured in anechoic chamber, at a point 1m in front of the unit at a height of 1.4m. During actual operation these values are normally somewhat higher as a result of ambient conditions.

38VMH Heat Pump Outdoor Unit 460V-3-60

Appearance						
Nominal Tons	26	28	30	32	34	36
Model name	38VMA312HDS6-1	38VMA336HDS6-1	38VMA360HDS6-1	38VMA384HDS6-1	38VMA408HDS6-1	38VMA432HDS6-1

Triple Module (Combined)

Technical Specifications

Combination model number			38VMA312HDS6-1	38VMA336HDS6-1	38VMA360HDS6-1	38VMA384HDS6-1	38VMA408HDS6-1	38VMA432HDS6-1	
Combination units			38VMA120HDS6-1	38VMA120HDS6-1	38VMA120HDS6-1	38VMA144HDS6-1	38VMA144HDS6-1	38VMA144HDS6-1	
			38VMA096HDS6-1	38VMA120HDS6-1	38VMA120HDS6-1	38VMA120HDS6-1	38VMA144HDS6-1	38VMA144HDS6-1	
			38VMA096HDS6-1	38VMA096HDS6-1	38VMA120HDS6-1	38VMA120HDS6-1	38VMA120HDS6-1	38VMA144HDS6-1	
Nominal tons		Ton	26	28	30	32	34	36	
Cooling capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	312	336	360	384	408	
		Rated	kBtu/h	284	304	326	356	380	
Heating capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	342	360	378	412	446	
		Rated	kBtu/h	320	338	354	384	410	
With non-ducted indoor units	Power supply (*2)		460V, 3-Phase, 60Hz						
	Cooling	Power consumption	kW	24.1	27.0	30.5	34.9	38.6	
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	20.5	19.2	18.0	18.0	17.5	
	Heating	Power consumption	kW	25.9	28.5	31.0	33.7	36.1	
COP (Coefficient of Performance)		W/W	3.4	3.3	3.2	3.2	3.2		
With ducted indoor units	Power supply (*2)		460V, 3-Phase, 60Hz						
	Cooling	Power consumption	kW	25.7	27.4	29.9	35.9	40.3	
		IEER (Integrated Energy Efficiency Ratio)	Btu/W	20.0	19.0	17.5	18.0	17.5	
	Heating	Power consumption	kW	27.3	29.2	31.0	33.6	35.9	
COP (Coefficient of Performance)		W/W	3.3	3.3	3.2	3.2	3.2		
External Dimensions		Height	in	64-3/8	64-3/8	64-3/8	64-3/8	64-3/8	
		Width	in	52-3/4 x 3	52-3/4 x 3	52-3/4 x 3	52-3/4 x 3	52-3/4 x 3	
		Depth	in	31-1/8	31-1/8	31-1/8	31-1/8	31-1/8	
Total weight	Unit	lb	659 x 3	659 x 3	659 x 3	772 + 659 x 2	772 x 2 + 659	772 x 3	
Compressor	Type/Quantity	Inverter-Driven Hermetic Scroll/3						Inverter-Driven Hermetic Scroll/4	Inverter-Driven Hermetic Scroll/5
Fan unit	Air volume	cfm	8,250 + 7,650 x 2	8,250 x 2 + 7,650	8,250 x 3	8,830 + 8,250 x 2	8,250 x 2 + 8,830	8,830 x 3	
Refrigerant (*3) (Charged refrigerant amount)		lb	37.5 x 3	37.5 x 3	37.5 x 3	37.5 x 3	37.5 x 3	37.5 x 3	
Electrical specifications	Unit	MCA (*4)	A	25 + 25 + 25	25 + 25 + 25	25 + 25 + 25	33 + 25 + 25	33 + 33 + 25	33 + 33 + 33
		Recommended fuse size	A	30 + 30 + 30	30 + 30 + 30	30 + 30 + 30	35 + 30 + 30	35 + 35 + 30	35 + 35 + 35
Refrigerant piping	Connecting port diameter	Gas side (main pipe) (brazing)	in	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8
		Liquid side (main pipe) (brazing)	in	3/4	3/4	3/4	3/4	3/4	3/4
		Balance pipe	in	1/4	1/4	1/4	1/4	1/4	1/4
Operation temperature range		Cooling	°F DB	5 to 125					
		Heating	°F WB	-5 to 64					
Maximum external static pressure		in WG	0.24						
Maximum number of connected indoor units			53	56	59	63	64	64	
Maximum capacity of combined indoor units			50% to 135%						
Sound pressure level cooling/heating (*5)		dB(A)	66.5	66.5	66.5	67	68.5	69	

Specifications subject to change.

(*1) Rated conditions.

Cooling: Indoor air temperature 80 °F dry bulb/67 °F wet bulb, outdoor air temperature 95 °F dry bulb.

Heating: Indoor air temperature 70 °F dry bulb, outdoor air temperature 47 °F dry bulb/43 °F wet bulb.

(*2) The source voltage must not fluctuate more than +/-10%.

(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).

(*5) These values, measured in anechoic chamber, at a point 1m in front of the unit at a height of 1.4m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.



40VMF 4-Way Cassette

The Carrier® VRF 4-Way Cassette provides supreme comfort by delivering conditioned airflow in four directions to customize the airflow control based on user comfort preferences.

- Integrated condensate lift up to 30"
- Panel accessory required, model number 40VMF00...

Technical Specifications

Unit 40VMF	40VMF009...3	40VMF012...3	40VMF015...3	40VMF018...3	40VMF024...3	40VMF030...3	40VMF036...3	40VMF048...3	
Power supply (V-Ph-Hz)	208/230-1-60								
Cooling capacity (Btuh)	9,000	12,000	15,000	18,000	24,000	30,000	36,000	48,000	
Heating capacity (Btuh)	10,000	13,500	17,000	21,000	27,000	34,000	40,000	54,000	
Indoor fan motor	Type	DC							
	Input (W)	16.5	23	35	45		75	100	
Indoor airflow (cfm)	Low	350	400	400	460	560	700	780	
	Medium	400	460	500	560	650	850	950	
	High	460	560	650	725	780	950	1,100	
Indoor unit sound level dB(A)	Low	31.3	32.6	32.4	31.3	35	34.1	39.9	43.1
	Medium	32.6	33	34	35.2	38.8	37.1	43.9	47.9
	High	34.4	35.2	37.3	40.8	44.2	40.8	46.7	49.3
Unit	Unit dimension, W x H x D (in)	33-1/8 x 9 x 33-1/8					33-1/8 x 11-3/4 x 33-1/8		
	Panel/grille dimension, W x H x D (in)	37-3/8 x 1-3/4 x 37-3/8							
	Total weight (lb)	13.2/20							
Refrigeration type	R410a								
Expansion device	EXV								
Design pressure, high/low (psig)	580/320								
Refrigerant piping (in)	Liquid side, OD (Flare)	1/4		3/8					
	Suction side, OD (Flare)	1/2		5/8					
Connecting wiring	Power wiring	Sized Per NEC and Local Codes Based on Nameplate Electrical Data							
	Signal wiring	2-Core Stranded Shielded Twisted Pair Cable 18AWG-16AWG							
Condensate drain pipe diameter, OD (in)	1-1/4								
Electrical data	MCA (A)	0.98				2.08			
	MOPD (A)	15							



40VMC Compact 4-Way Cassette

The Carrier® VRF Compact 4-Way Cassette provides supreme comfort by delivering conditioned airflow in four directions while fitting in a standard T grid ceiling.

- Integrated condensate lift up to 24"
- Panel accessory required, model number 40VMC001---

Technical Specifications

Unit 40VMC	40VMC007---3	40VMC009---3	40VMC012---3	40VMC015---3
Power supply (V-Ph-Hz)	208/230-1-60			
Cooling capacity (Btuh)	7,000	9,000	12,000	15,000
Heating capacity (Btuh)	8,000	10,000	13,000	17,000
Indoor fan motor	Type	DC		
	Input (W)	16		24
Indoor airflow (cfm)	Low	229		253
	Medium	282		306
	High	306		359
Indoor unit sound level dB(A)	Low	34.7		38.1
	Medium	38.5		42.3
	High	40.4		45.5
Unit	Unit dimension, W x H x D (in)	24-7/8 x 10-1/4 x 22-7/16		
	Panel/grille dimension, W x H x D (in)	25-1/2 x 2 x 25-1/2		
	Total weight (lb)	5.5/9.9		
Refrigeration type	R410a			
Expansion device	EXV			
Design pressure, high/low (psig)	580/320			
Refrigerant piping (in)	Liquid side, OD (Flare)	1/4		
	Suction side, OD (Flare)	1/2		
Connecting wiring	Power wiring	Sized Per NEC and Local Codes Based on Nameplate Electrical Data		
	Signal wiring	2-Core Stranded Shielded Twisted Pair Cable 18AWG-16AWG		
Condensate drain pipe diameter, OD (in)	1			
Electrical data	MCA (A)	0.38		0.53
	MOPD (A)	15		



40VMW High Wall Unit

The Carrier® VRF High Wall unit mounts on the wall providing conditioned air to fit any type of space.

- Condensate pump is accessory
- Filter is washable

Technical Specifications

Unit 40VMW		40VMW007...3	40VMW009...3	40VMW012...3	40VMW015...3	40VMW018...3	40VMW024...3	40VMW030...3
Power supply (V-Ph-Hz)		208/230-1-60						
Cooling capacity (Btuh)		7,500	9,500	12,000	15,000	18,000	24,000	30,000
Heating capacity (Btuh)		8,500	10,900	13,500	17,000	21,000	27,000	34,000
Indoor fan motor	Type	DC						
	Input (W)	25	30	35	45	75	85	
Indoor airflow (cfm)	Low	245	250	380	440	460	480	
	Medium	270	280	420	470	530	600	
	High	320	360	480	560	650	770	
Indoor unit sound level dB(A)	Low	31.2	31.8	32.8	38.4	38.9	36.8	38.1
	Medium	32.2	32.6	34.6	39.6	40.2	42	43.6
	High	34	34.5	36.4	41.7	41.8	43.2	48.3
Unit	Unit dimension, W x H x D (in)	36 x 11-3/8 x 9			42-1/4 x 12-3/8 x 9		47 x 13-1/2 x 10-1/8	
	Total weight (lb)	28/35			32/40.5		38/50.5	
Refrigeration type		R410a						
Expansion device		EEV						
Design pressure, high/low (psig)		580/320						
Refrigerant piping (in)	Liquid side, OD (Flare)	1/4				3/8		
	Suction side, OD (Flare)	1/2				5/8		
Connecting wiring	Power wiring	Sized Per NEC and Local Codes Based on Nameplate Electrical Data						
	Signal wiring	2-Core Stranded Shielded Twisted Pair Cable 18AWG-16AWG						
Condensate drain pipe diameter, OD (in)		3/4						
Electrical data	MCA (A)	0.45					0.86	
	MOPD (A)	15						



40VMU Underceiling Unit – Floor Console (Exposed)

The Carrier® VRF Underceiling unit can be installed exposed below the ceiling or floor standing as an exposed Floor Console unit.

- Condensate pump is accessory
- Filter is washable

Technical Specifications

Unit 40VMU	40VMU012...3	40VMU015...3	40VMU018...3	40VMU024...3	40VMU030...3	40VMU036...3	40VMU048...3	
Power supply (V-Ph-Hz)	208/230-1-60							
Cooling capacity (Btuh)	12,000	15,000	18,000	24,000	30,000	36,000	48,000	
Heating capacity (Btuh)	13,500	17,000	21,000	27,000	34,000	40,000	54,000	
Indoor fan motor	Type	DC Motor						
	Input (W)	24	47	53	80	107	67 x 2	115 x 2
Indoor airflow (cfm)	Low	259	359	394	494	624	906	929
	Medium	294	412	424	529	676	976	1,000
	High	335	441	471	571	729	1,094	1,353
Indoor unit sound level dB(A)	Low	35.8	41.7	44.1	50.2	50.4	48.4	50.6
	Medium	37.7	45.4	46.5	52	52.1	50.3	52.3
	High	40.5	47.2	48.5	53.8	53.9	53	59.8
Unit	Unit dimension, W x H x D (in)	39 x 26 x 8			50-1/2 x 26 x 8		66 x 27 x 10	
	Total weight (lb)	57/71	62/75		77/90		106/128	
Refrigeration type	R410a							
Expansion device	EXV							
Design pressure, high/low (psig)	580/320							
Refrigerant piping (in)	Liquid side, OD (Flare)	1/4		3/8				
	Suction side, OD (Flare)	1/2		5/8				
Connecting wiring	Power wiring	Sized Per NEC and Local Codes Based on Nameplate Electrical Data						
	Signal wiring	2-Core Stranded Shielded Twisted Pair Cable 18AWG-16AWG						
Condensate drain pipe diameter, OD (in)	5/8							
Electrical data	MCA (A)	0.44	0.73	0.87	1.2	1.4	1.8	2.8
	MOPD (A)	15						



40VMR Floor Console (Recessed)

The Carrier® VRF Floor Console (recessed) units can be installed inside a wall or custom-built cabinet to match interior space design.

Adjustable filter rack 1"–2".

- Condensate pump is accessory
- Filter is washable
- External static pressure up to 0.15

Technical Specifications

Unit 40VMR	40VMR007...3	40VMR009...3	40VMR012...3	40VMR015...3	40VMR018...3	40VMR024...3	
Power supply (V-Ph-Hz)	208/230-1-60						
Cooling capacity (Btuh)	7,000	9,000	12,000	15,000	18,000	24,000	
Heating capacity (Btuh)	8,000	10,000	13,000	17,000	20,000	27,000	
Indoor fan motor	Type	DC					
	Input (W)	19	25	41	27	79	
Indoor airflow (cfm)	Low	253	271	347	365	553	
	Medium	276	335	424	418	635	
	High	300	400	500	488	776	
Indoor external static pressure	in. wg	0.15					
Indoor unit sound level dB(A)	Low	35.7	35.8	32.5	36.8	32.8	42.5
	Medium	38.2	37.9	36.3	41.7	35.5	45.2
	High	39.9	39.8	40.3	45.3	39	49.9
Unit	Unit dimension, W x H x D (in)	35-1/4 x 24 x 8-3/8		43-1/8 x 24 x 8-3/8		55 x 24 x 8-3/8	
	Total weight (lb)	48.9/80		59.1/91.5		69.2/102.1	
Refrigeration type	R410a						
Expansion device	EEV						
Refrigerant piping (in)	Liquid side, OD (Flare)	1/4			3/8		
	Suction side, OD (Flare)	1/2			5/8		
Connecting wiring	Power wiring	Sized Per NEC and Local Codes Based on Nameplate Electrical Data					
	Signal wiring	2-Core Stranded Shielded Twisted Pair Cable 20AWG-16AWG					
Condensate drain pipe diameter, OD (in)	5/8						
Electrical data	MCA (A)	0.55	0.63	0.83	0.72	1.38	
	MOPD (A)	15					
External static pressure	in. wg	0.15					



40VML Low Static Duct (Slim Profile)

The Carrier® VRF Slim Duct (low static) unit is only 8-1/4" in height, making it an ideal candidate for narrow soffit space applications. Air return can be rear or bottom, but rear is default.

- Integrated condensate lift up to 28"
- Filter is washable

Technical Specifications

Unit 40VML	40VML007...3	40VML009...3	40VML012...3	40VML015...3	40VML018...3	40VML024...3	
Power supply (V-Ph-Hz)	208/230-1-60						
Cooling capacity (Btuh)	7,000	9,000	12,000	15,000	18,000	24,000	
Heating capacity (Btuh)	8,000	10,000	13,500	17,000	21,000	27,000	
Indoor fan motor	Type	DC					
	Input (W)	25	32	43	56	68	
Indoor airflow (cfm)	Low	224	236	306	353	471	
	Medium	253	294	367	424	565	
	High	283	353	459	530	701	
Indoor external static pressure	in. wg	0.20					
Indoor unit sound level dB(A)	Low	31.4	31	33	33.2	36	37
	Medium	32	32	34.6	35.2	38	38.8
	High	34	34.5	37	36.7	40.2	41.3
Unit	Unit dimension, W x H x D (in)	30-3/4 x 8-1/4 x 19-3/4		39-1/4 x 8-1/4 x 19-3/4		48 x 8-1/4 x 19-3/4	
	Total weight (lb)	41/48.5		48.5/57.5		59.5/71.5	
Refrigeration type	R410a						
Expansion device	EEV						
Refrigerant piping (in)	Liquid side, OD (Flare)	1/4			3/8		
	Suction side, OD (Flare)	1/2			5/8		
Connecting wiring	Power wiring	Sized Per NEC and Local Codes Based on Nameplate Electrical Data					
	Signal wiring	2-Core Stranded Shielded Twisted Pair Cable 18AWG-16AWG					
Condensate drain pipe diameter, OD (in)	1						
Electrical data	MCA (A)	0.5	0.6	0.8	0.95	1.18	
	MOPD (A)	15					



40VMM Medium Static Duct

The Carrier® VRF Medium Static Duct unit is ideal for single room hideaway or ducted applications. Air return can be rear or bottom, but rear is default.

- Integrated condensate lift up to 28"
- Filter is washable

Technical Specifications

Unit 40VMM	40VMM007--3	40VMM009--3	40VMM012--3	40VMM015--3	40VMM018--3	40VMM024--3	40VMM030--3	40VMM036--3	40VMM048--3	
Power supply (V-Ph-Hz)	208/230-1-60									
Cooling capacity (Btuh)	7,000	9,000	12,000	15,000	19,000	24,000	30,000	38,000	48,000	
Heating capacity (Btuh)	8,000	10,000	13,500	17,000	21,000	27,000	34,000	42,000	54,000	
Indoor fan motor	Type	DC								
	Input (W)	50	115	140	155	195	260	310	430	
Indoor airflow (cfm)	Low	230	250	326	376	501	626	751	1,001	
	Medium	271	294	385	444	592	740	888	1,184	
	High	312	375	462	565	707	908	1,117	1,366	
Indoor external static pressure	in. wg	0.32	0.6							
Indoor unit sound level dB(A)	Low	28.1	29.3	30	31.9	35.5	36.4	40.8	39.2	44.7
	Medium	29.3	30.9	32	34.5	38.2	38.6	43.7	42.6	47.5
	High	31.3	32.2	36.1	38.5	41.1	41.8	46.9	46.2	50.8
Unit	Unit dimension, W x H x D (in)	39-1/4 x 8-1/4 x 19-3/4		39-3/4 x 10-5/8 x 25			48-1/2 x 10-5/8 x 30-1/2		50-3/4 x 11-7/8 x 34-1/8	
	Total weight (lb)	48.5/57.5		76/88		97/115		99/117		124/143
Refrigeration type	R410a									
Expansion device	EXV									
Design pressure, high/low (psig)	580/320									
Refrigerant piping (in)	Liquid side, OD (Flare)	1/4				3/8				
	Suction side, OD (Flare)	1/2				5/8				
Connecting wiring	Power wiring	Sized Per NEC and Local Codes Based on Nameplate Electrical Data								
	Signal wiring	2-Core Stranded Shielded Twisted Pair Cable 18AWG-16AWG								
Condensate drain pipe diameter, OD (in)	1	3/4								
Electrical data	MCA (A)	1.25			3.13				5	
	MOPD (A)	15								



40VMH High Static Duct

The Carrier® VRF High Static Ducted indoor units can handle higher static to support longer ductwork for a given space and are ideal for hideaway applications serving multiple zones.

- Integrated condensate lift up to 28", for sizes up to 54
- For sizes 72 and 96, condensate pump is an accessory

Technical Specifications

Unit 40VMH	40VMH024...3	40VMH030...3	40VMH036...3	40VMH048...3	40VMH054...3	40VMH072...3	40VMH096...3		
Power supply (V-Ph-Hz)	208/230-1-60								
Cooling capacity (Btuh)	24,000	30,000	36,000	48,000	53,500	72,000	96,000		
Heating capacity (Btuh)	27,000	34,000	40,000	54,000	60,000	81,000	108,000		
Indoor fan motor	Type	DC Motor							
	Input (W)	81	140	190	220	420	245*2	395*2	
Indoor airflow (cfm)	Low	524	647	882	1,041	1,412	1,559	2,076	
	Medium	600	753	1,029	1,200	1,618	1,794	2,400	
	High	735	971	1,188	1,429	1,835	2,235	2,824	
Indoor external static pressure	in. wg	0.8					1		
	Indoor unit sound level dB(A)	Low	44.7	43.3	49.1	48.3	52	48.7	52.4
		Medium	47.8	46.9	52.8	51.8	55.7	52.2	54.7
		High	50.9	51.2	55.5	54.9	58.1	55.9	56.4
Unit	Unit dimension, W x H x D (in)	37-1/2 x 16-1/2 x 27-1/4			51-1/4 x 16-1/2 x 27-1/4		56-3/4 x 20 x 36-1/2		
	Total weight (lb)	110/168.4	114.6/171		159.2/231.5		254.2/342.8		
Refrigeration type	R410a								
Expansion device	EXV								
Design pressure, high/low (psig)	580/320								
Refrigerant piping (in)	Liquid side, OD (Flare)	3/8							
	Suction side, OD (Flare)	5/8				7/8			
Connecting wiring	Power wiring	Sized per NEC and Local Codes based on Nameplate Electrical Data							
	Signal wiring	2-core stranded shielded twisted pair cable 18AWG-16AWG							
Condensate drain pipe diameter, OD (in)	1					1-5/8			
Electrical data	MCA (A)	5.7	7.1	7.3	7.6	7.8	9.7	10.2	
	MOPD (A)	15							



40VMV Vertical AHU

The Carrier® VRF Vertical Air Handling unit is a multi-positional unit – vertical and horizontal – ideal for closet applications. Comes standard with a constant CFM ECM motor to ensure you always get the air flow you need.

- Constant CFM motor

Technical Specifications

Unit 40VMV	40VMV018...3	40VMV024...3	40VMV030...3	40VMV036...3	40VMV048...3	40VMV054...3	
Power supply (V-Ph-Hz)	208/230-1-60						
Cooling capacity (Btuh)	18,000	24,000	30,000	36,000	48,000	53,500	
Heating capacity (Btuh)	21,000	27,000	34,000	40,000	54,000	60,000	
Indoor fan motor	Type	DC					
	Input (W)	60	100	151	187	355	466
Indoor airflow (cfm)	Low	420	560	700	840	1,120	1,260
	Medium	510	680	850	1,020	1,360	1,530
	High	600	800	1,000	1,200	1,600	1,800
Indoor external static pressure	in. wg	0.8					
Indoor unit sound level dB(A)	Low	34.4	37.9	44.4	39.3	43.8	47.9
	Medium	37.1	42.3	48.4	44.1	48.5	52.6
	High	41.6	46.2	52.2	46.9	53	57.1
Unit	Unit dimension, W x H x D (in)	19-5/8 x 46-1/2 x 20-5/8			22 x 54-1/2 x 24		
	Total weight (lb)	123/147			163/189		
Refrigeration type	R410a						
Expansion device	EXV						
Design pressure, high/low (psig)	580/320						
Refrigerant piping (in)	Liquid side, OD (Flare)	3/8					
	Suction side, OD (Flare)	5/8					
Connecting wiring	Power wiring	Sized Per NEC and Local Codes Based on Nameplate Electrical Data					
	Signal wiring	2-Core Stranded Shielded Twisted Pair Cable 18AWG-16AWG					
Condensate drain pipe diameter, OD (in)	3/4 NPT						
Electrical data	MCA (A)	3.8			5.3		7.2
	MOPD (A)	15					



40VMA Outside Air Duct

The Carrier® Outside Air unit draws in ventilation air into the space to provide fresh air. The units are installed in plenum and can be connected to a heat pump system along with other styles of indoor unit.

- Discharge temperature control

Technical Specifications

Unit 40VMA	40VMA036...3	40VMA048...3	40VMA054...3	40VMA072...3	40VMA096...3	
Power supply (V-Ph-Hz)	208/230-1-60					
Cooling capacity (Btuh)	36,000	48,000	12,000	15,000	96,000	
Heating capacity (Btuh)	24,000	30,000	13,500	17,000	59,000	
Indoor fan motor	Type	DC Motor				
	Input (W)	64	71	87	60*2	80*2
Indoor airflow (cfm)	Low	441	471	529	882	1,029
	Medium	529	559	647	971	1,176
	High	588	647	765	1,059	1,294
Indoor external static pressure	in. wg	0.8			1	
Indoor unit sound level dB(A)	Low	43.8	43.4	43.9	48.5	47.7
	Medium	47.8	47.8	47.8	50	50.8
	High	49.5	50.4	51.4	52.1	53.5
Unit	Unit dimension, W x H x D (in)	51-1/4 x 16-1/2 x 27-1/4			56-3/4 x 20 x 36-1/2	
	Total weight (lb)	161.4/233.7			255.7/346.2	
Refrigeration type	R410a					
Expansion device	EXV					
Design pressure, high/low (psig)	580/320					
Refrigerant piping (in)	Liquid side, OD (Flare)	3/8			3/8	
	Suction side, OD (Flare)	5/8			7/8	
Connecting wiring	Power wiring	Sized per NEC and Local Codes based on Nameplate Electrical Data				
	Signal wiring	2-core stranded shielded twisted pair cable 18AWG-16AWG				
Condensate drain pipe diameter, OD (in)	1			1-5/8		
Electrical data	MCA (A)	5.7	6.3	6.9	8.5	10
	MOPD (A)	15				

Individual Zone Controls

REMOTE CONTROLS



Wireless Remote Controller – 40VM900001

- Mode
- Fan Speed
- Set Point
- Swing
- ON/OFF
- Clock
- Timer
- Lock Function
- 1° F Temperature Indication
- Addressing Capability



Simple Wired Remote Controller – 40VM900002

- Simple, Easy to Use
- Backlight
- ON/OFF
- Mode
- Fan Speed
- Set Point
- Swing
- Group Control (Max 16 indoor units)
- Dual Set Point
- Set Temperature Range Limiting
- Room Temperature Display
- Error Display
- 1° F Temperature Indication
- Addressing Capability



Scheduling Wired Remote Controller – 40VM900003

- Weekly Scheduling
- ON/OFF
- Mode
- Fan Speed
- Set Point
- Swing
- Backlight
- Group Control (Max 16 indoor units)
- Dual Set Point
- Set Temperature Range Limiting
- Room Temperature Display
- Error Display
- 1° F Temperature Indication
- Addressing Capability



Touchscreen Wired Remote Controller – 40VM900005

- Display Resolution Is 800*480
- Weekly Scheduling
- Touchscreen
- Backlight
- ON/OFF
- Mode
- Fan Speed
- Set Point
- Swing
- Group Control (Max 16 indoor units)
- Dual Set Point
- Set Temperature Range
- Room Temperature Display
- Error Display
- 1°F Temperature Indication
- Addressing Capability



24V Interface – 40VM900008

- Works With All Indoor Units
- Allows Standard 24V Thermostat Connection
- Integration With Thermostat Features Including Wi-Fi®
- One Per Indoor Unit
- ON/OFF
- Mode
- Fan Speed
- Set Point
- Room Temperature Display

Sold Separately



Côt® Thermostat



33CONNECTSTAT

Central Control



Schedule Central Controller – 40VM900004

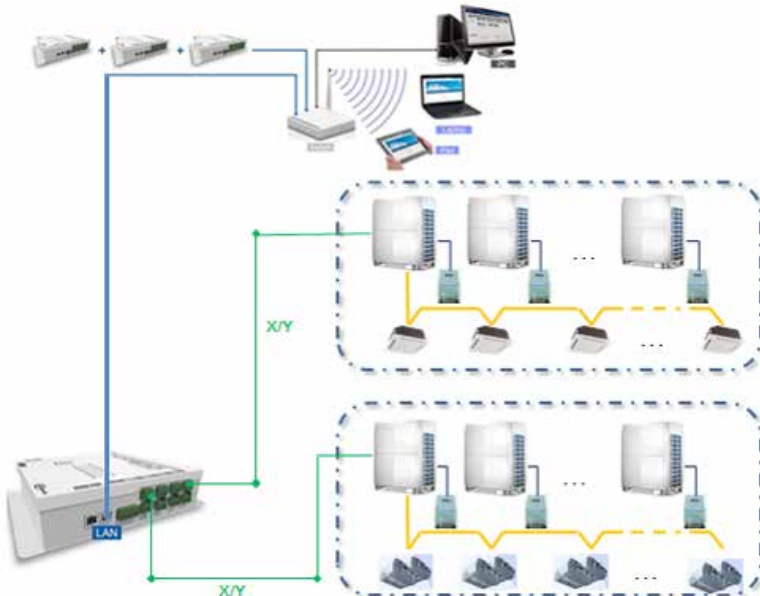
- Group Control (Max 64 indoor units)
- Backlight
- ON/OFF
- Mode
- Fan Speed
- Set Point
- Swing
- Set Temperature Range Limiting
- Room Temperature Display
- Error Display



Touchscreen Central Controller – 40VM900006

- Group Control (Max 512 indoor units & 20 outdoor units)
- 10.1 Inch Screen, 1200*800 Resolution
- 3 Levels of Account Management, Can Set Up 20 Users
- Remote Access
- Alarm Notification Via Email
- Fire Alarm and Interacting Information
- 4-path DI and DO
- Recognize Units Automatically
- ON/OFF
- Weekly Scheduling
- Mode
- Fan Speed
- Set Point
- Swing
- Dual Set Point
- Set Temperature Range Limiting
- Error Display
- Remote Access and Web Control

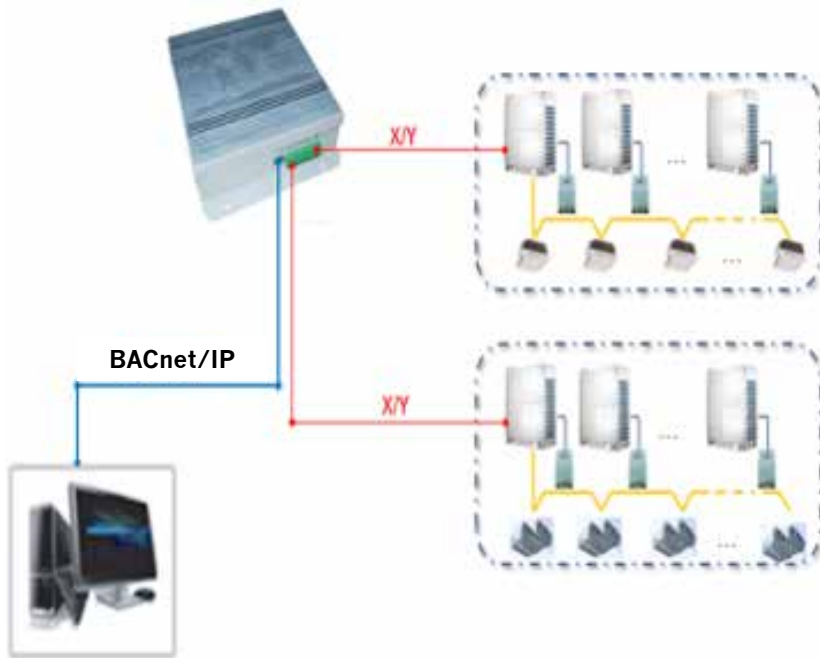
Building Automation



Intelligent Manager – 40VM900051

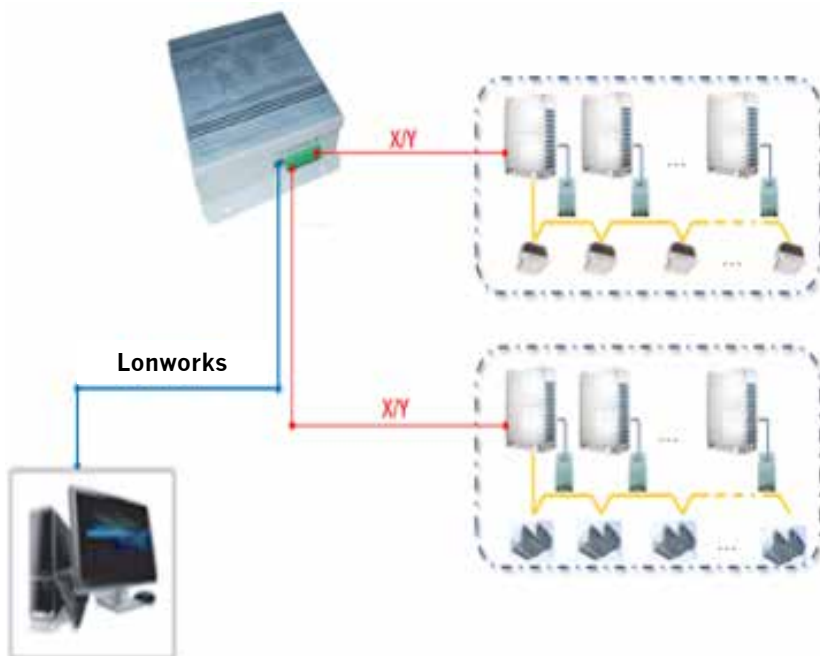
- Manage 64 Refrigerant Systems (1,024 indoor units, 256 outdoor units)
- Monitor Both Outdoor and Indoor Unit Operation
- Scheduling (Daily/Weekly)
- Energy-Saving Management:
 - Set Temperature Range Limiting
 - Lock Mode, Etc.
- Group Management
- Export Software Log

Building Automation



BACnet – 40VM900052

- Four 485 Ports, Each Port Can Access 64 Indoor Units or 8 Refrigeration Systems
- WEB Service Allows Log In Through Web
- Indoor Unit
 - Temperature Set
 - Indoor Temperature
 - Operate Mode
 - Error Code
 - Set Mode
- Outdoor Unit
 - Mode
 - Outdoor Temperature
 - Error Code



Lonworks – 40VM900053

- Supports 64 Indoor Units
- Indoor Unit
 - Temperature Set
 - Indoor Temperature
 - Operate Mode
 - Fault Code
- Outdoor Unit
 - Mode
 - Fault
 - Outdoor Temperature
 - Fault Code



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