

Mini VRF Super XS Series -Heat pump 1 Phase

(50/60 Hz)

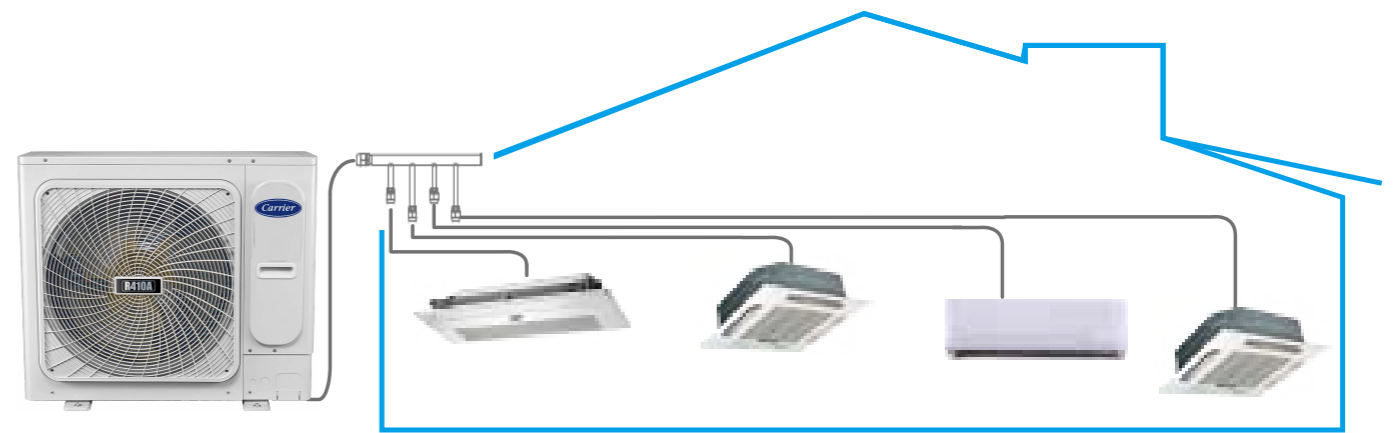


Mini VRF Super XS Series -Heat pump 1 Phase Wide Application Range

- IEER up to 22
- Compact Dimension
- Up to 9 indoor units can be connected
- WiFi connection enabled
- R410A Refrigerant
- Full DC Inverter Technology
- High Efficiency Compressor and Fan Motor
- Long Piping Capability (Longer than Flex systems)
- Indoor units free capacity combination (No combination restriction compare with Flex systems)
- Wide Range of Indoor Units for residential, commercial and building applications (With 10 types and more than 100 models, same as Carrier VRF)
- Anti-Corrosion Blue Fin protection for a high performance heat exchanger

Wide range of outdoor units

Hp		3	4	5	6
kBtu/h		27.3	35.8	47.8	52.9
Air Cooled - Heat pump	Mini VRF Super XS Series – Heat pump 220-240V/1Ph/50/60Hz				



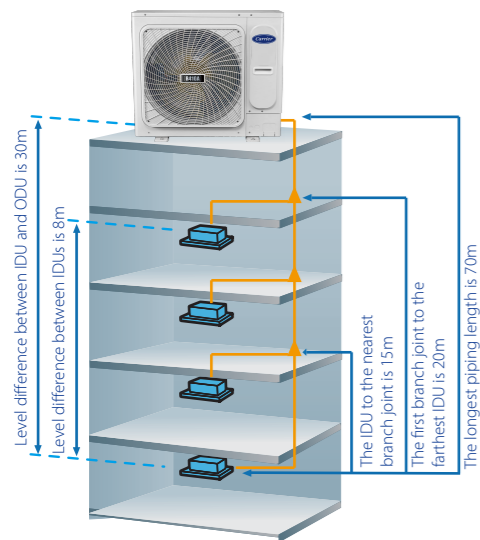
Flexible indoor units connection

Mini VRF with intelligent control gives you independent zoning control with maximum flexibility. A single outdoor unit supports up to nine indoor units, freeing up considerable space outside.

- Max. 7 indoor units for a 6HP (52.9kBtu/h) outdoor unit installation
- Max. 6 indoor units for a 5HP (47.8kBtu/h) outdoor unit installation
- Max. 6 indoor units for a 4HP (40.9kBtu/h) outdoor unit installation
- Max. 5 indoor units for a 4HP (35.8kBtu/h) outdoor unit installation
- Max.4 indoor units for a 3HP (27.3kBtu/h) outdoor unit installation

Flexible piping design

The Mini VRF provides a total piping length possibility of 100m, a maximum height difference between outdoor and indoor units of 30m. The height difference between indoors unit can be up to 8m. These generous allowances facilitate an extensive array of system designs.



Mini H VRF piping capability

Permitted value		3HP/4HP (27.3/35.8kBtu/h)	5HP/6HP (47.8/52.9kBtu/h)
Piping length	Total piping length (Actual)	≤100m	≤100m
	Longest piping (L)	Actual length	≤45m
		Equivalent length	≤50m
	Equivalent piping length (from the first line branch pipe to furthest indoor unit)	≤20m	≤20m
Equivalent piping length (from the nearest branch pipe equivalent length)	≤15m	≤15m	
Level difference	Level difference between IDU-ODU	Outdoor unit up	≤30m
		Outdoor unit down	≤20m
	Level difference between IDU-IDU	≤8m	≤8m

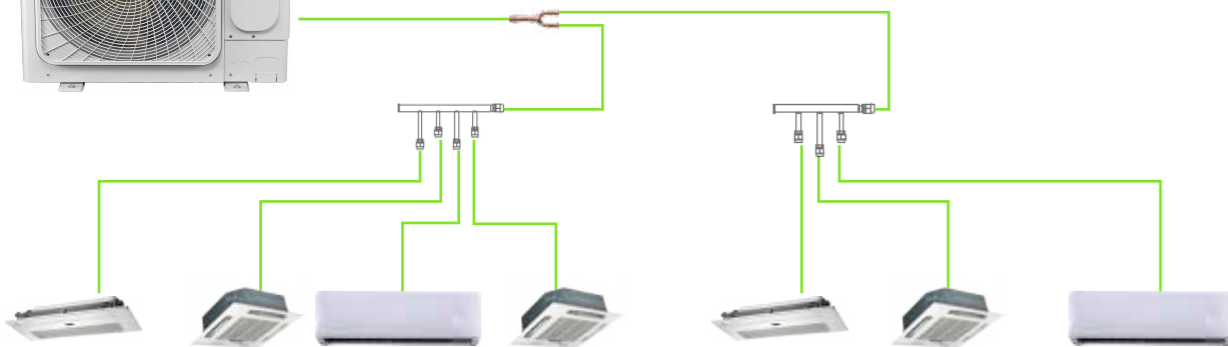
1 Total pipe length is equal to all the liquid pipe or all the gas pipe length.

2 When the total equivalent pipe length of liquid side plus gas side is more than 90m(295.2ft),

New piping connection design

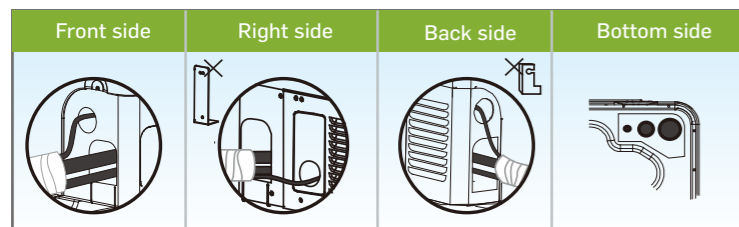


Branch-headers and Y-branches require only a single connection from the condenser to supply multiple units with sufficient amount of refrigerant. Improving savings from installation costs and allowing installers more flexible designs under typical conditions, for limited ceiling spaces in residential and light commercial applications.



More convenience in installation

A four-direction space is available for connecting pipes and wiring in various installation sites.



Dimension Comparison

- Smaller size with same cooling capacity.

Carrier Super XS line up



38VR003H112016
Capacity: **3HP**
Dimensions (mm):
W982 x H712 x D440
Volume: **0.31m³**



38VR004SH112016
38VR004H112016
Capacity: **4HP**
Dimensions (mm):
W950 x H840 x D426
Volume: **0.34m³**



38VR005H112016
38VR006H112016
Capacity: **5HP & 6HP**
Dimensions (mm):
W1040 x H865 x D523
Volume: **0.47m³**

Other Brand

Capacity: **5HP**;
Volume:
1000*1200*375mm
=**0.45m³**

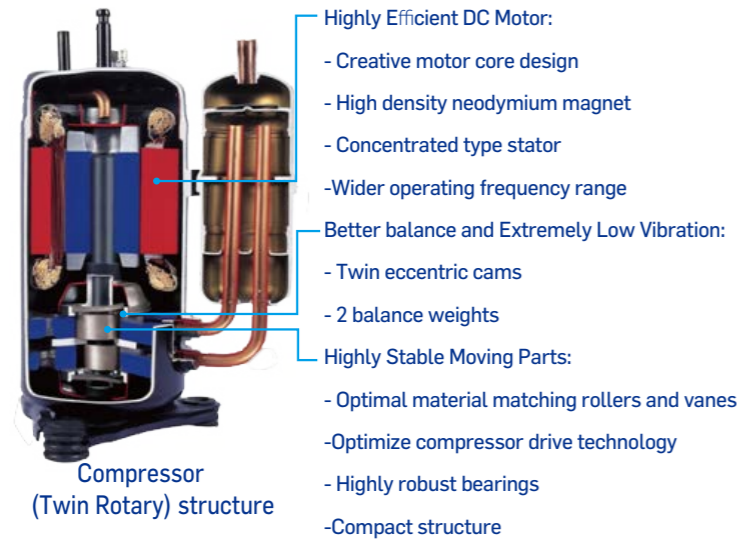


Carrier Super XS Series outdoor units are 50% smaller compare to other brands, as well delivering same cooling capacity. As a result, from our new compact design and reduced footprint, residential and light commercial applications become the best solution in the market for space savings.

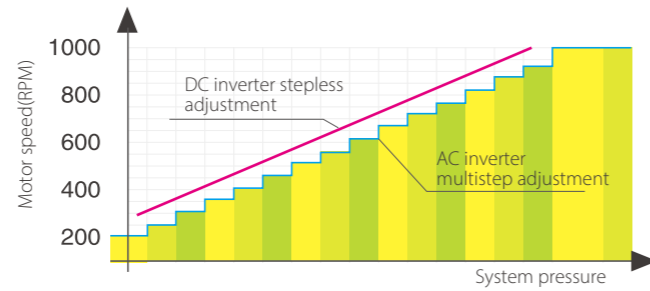
Advanced Technologies

Full DC inverter technology

At the heart of our system is a highly intelligent inverter driven compressor. This advanced technology enables the output of the outdoor unit to be modulated by the cooling or heating demands of the zone that it controls. This advanced system ensures precise temperature regulation and highly efficient energy usage, making a significant contribution to the limiting the impact on the environment.



High efficiency DC fan motor saved power up to 50%.

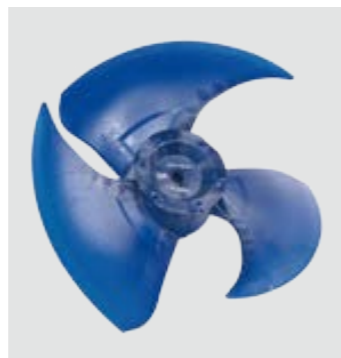


Noise reducing design

Optimally designed fan shape and air discharge grille increases air volume and reduces running noise.



Newly Designed Fan Guard



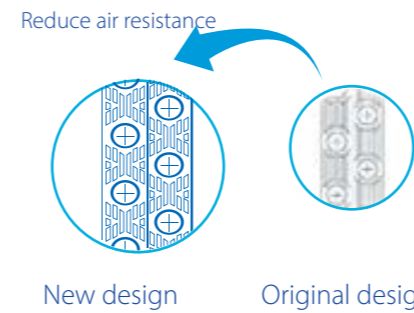
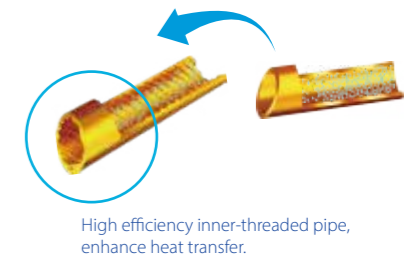
Powerful Large Propeller

High performance heat exchanger – Built to last



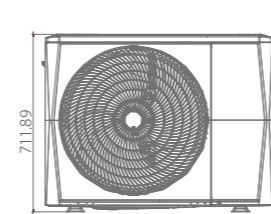
The outdoor unit is built to last with a coil blue fin anti-corrosive treatment, enhances durability and protects against corrosion from air, water and other corrosive agents, for a longer coil service life.

The new designed window fins enlarge the heat-exchanging area, decreases the air resistance, saves more power and enhances heat exchange performance.

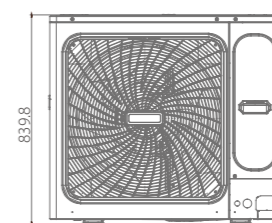
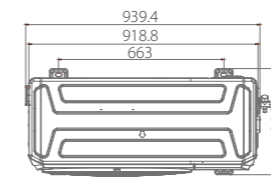


Hydrophilic film fins and inner-threaded copper pipes optimize heat exchange efficiency.

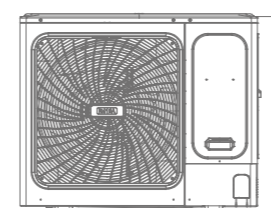
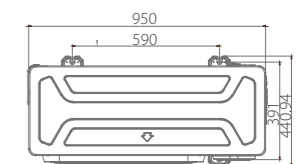
Dimensions: Mini VRF Super XS Series – Heat pump 1 Phase



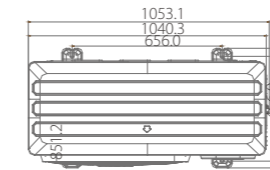
8kW



10-12kW



14-16kW



Mini VRF Super XS Series – Heat pump 1 Phase

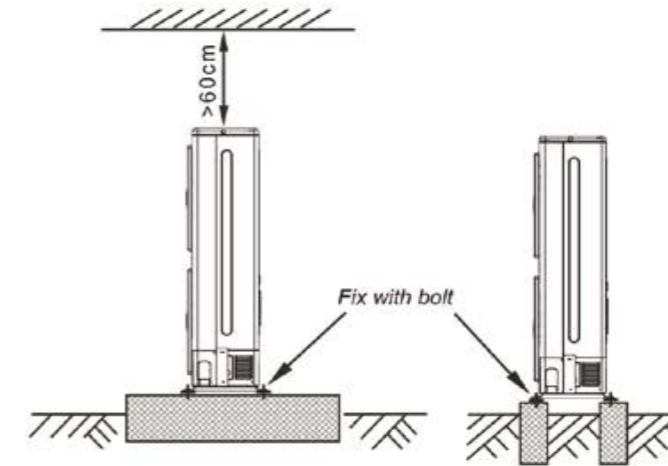
Specifications 50/60Hz

HP	3		4		4.5	
Model	38VR003H112016		38VR0S4H112016		38VR004H112016	
Power supply	V/N/Hz	220-240/1/ 50(60)				
Cooling ¹	Capacity	kW	8.0	10.0	12.0	
		kBtu/h	27.3	34.1	40.9	
	Power input	kW	2	2.55	3.1	
		EER	4	3.92	3.87	
Heating ²	Capacity	kW	9.0	12.0	14.0	
		kBtu/h	30.7	40.9	47.8	
	Power input	kW	1.95	2.97	3.45	
		COP	4.62	4.04	4.06	
Connectable indoor unit	Total capacity	45~130% of outdoor unit capacity				
	Max. quantity	4	6	7		
Compressor	Type	DC inverter				
	Quantity	1				
Fan motor	Type	DC				
	Quantity	1				
Refrigerant	Type	R410A				
	Factory charge	kg	2.2	2.35	3	
Pipe connections ³	Liquid pipe	mm	Φ9.53			
	Gas pipe	mm	Φ15.9			
Airflow rate	m ³ /h	3700	5200	5000		
Sound pressure level	dB(A)	54	54	56		
Net dimensions (W×H×D)	mm	982×712×440	950×840×426			
Packed dimensions (W×H×D)	mm	1048×810×485	1025×950×510			
Net weight	kg	53	71.5	83		
Gross weight	kg	57.5	81	92		
Operating temperature range	°C	Cooling: -5~55, Heating: -15~27				

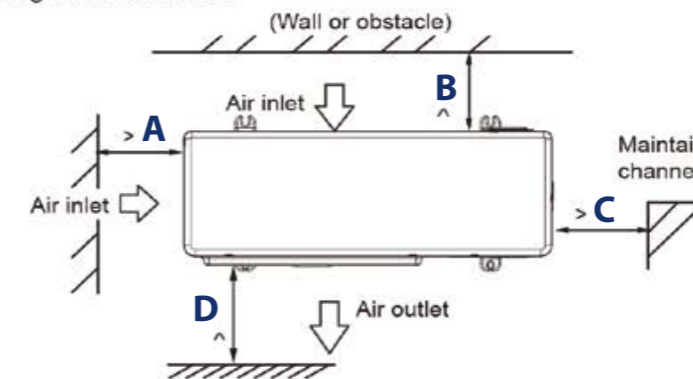
HP	5		6	
Model	38VR005H112016		38VR006H112016	
Power supply	V/N/Hz	220-240/1/ 50(60)		
Cooling ¹	Capacity	kW	14.0	15.5
		kBtu/h	47.8	52.9
	Power input	kW	3.75	4.8
		EER	3.73	3.23
Heating ²	Capacity	kW	16.0	18.0
		kBtu/h	54.6	61.4
	Power input	kW	3.85	4.65
		COP	4.16	3.87
Connectable indoor unit	Total capacity	45~130% of outdoor unit capacity		
	Max. quantity	8	9	
Compressor	Type	DC inverter		
	Quantity	1		
Fan motor	Type	DC		
	Quantity	1		
Refrigerant	Type	R410A		
	Factory charge	kg	3.4	3.8
Pipe connections ³	Liquid pipe	mm	Φ9.53	
	Gas pipe	mm	Φ15.9	
Airflow rate	m ³ /h	5400	5200	
Sound pressure level	dB(A)	56	56	
Net dimensions (W×H×D)	mm	1040×865×523		
Packed dimensions (W×H×D)	mm	1120×980×560		
Net weight	kg	90.4	94.4	
Gross weight	kg	100.4	104.4	
Operating temperature range	°C	Cooling: -5~55, Heating: -15~27		

Notes:
 1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level
 2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level
 3. Sound pressure level is measured at a position 1m in front of the unit and 1m above the floor in a semi-anechoic chamber.

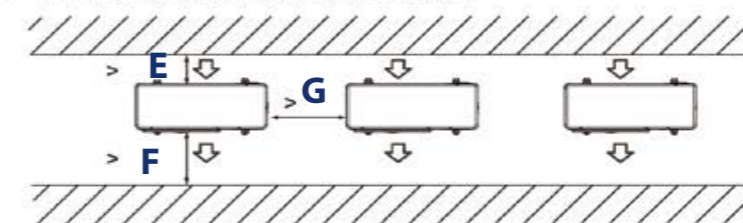
Unit install space allowance



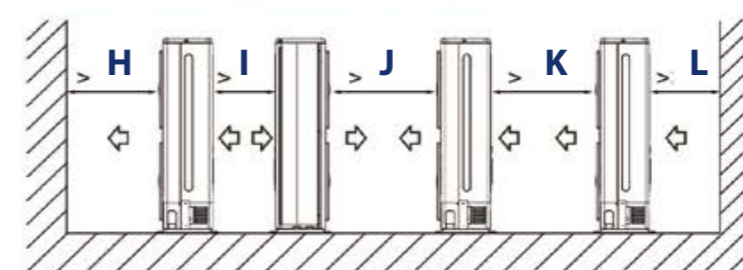
• Single unit installation



• Parallel connect the two units or above



• Parallel connect the front with rear sides



Model (kW)	A	B	C	D	E	F	G	H	I	G	K	L
8-18kW	300	300	600	2000	300	2000	600	2000	500	3000	3000	300
20-33.5kW	300	300	600	3000	300	3000	600	3000	1000	6000	4000	300
40-45kW	400	400	600	4000	400	4000	600	4000	1000	8000	6000	400

*length in CMS

Indoor Unit Range

■ 10 types, more than 100 models.

	1-way cassette (6-24Kbtu)		2-way cassette (7-24Kbtu)
	4-way cassette (9-24Kbtu)		Compact 4-way cassette (7-16Kbtu)
	Medium static pressure duct (7-60Kbtu)		Wall-mounted (7-30Kbtu)
	High static pressure duct (24-190Kbtu)		Ceiling & Flooring (12-60Kbtu)
	Heat Recovery Ventilator (42-96Kbtu)		Vertical (18-54kbtu)

Wide Application Range

Wide Range of Indoor Units

The new Mini VRF line up has a variety of 9 indoor unit types, designed to meet all residential and light commercial projects requirements.



Indoor Unit Range

Two-way Cassette	Four-way Cassette	Ceiling & Floor	Wall-mounted	High ESP Duct
For narrow spaces and corners	For open spaces, air supply balance	For spaces already decorated	For small spaces with low-noise requirements	ESP up to 196Pa -specially designed for large spaces

Mini VRF AHU Control Box for retrofit applications

High Efficiency

AHU kit facilitates raising the EER/COP of the complete AHU system.



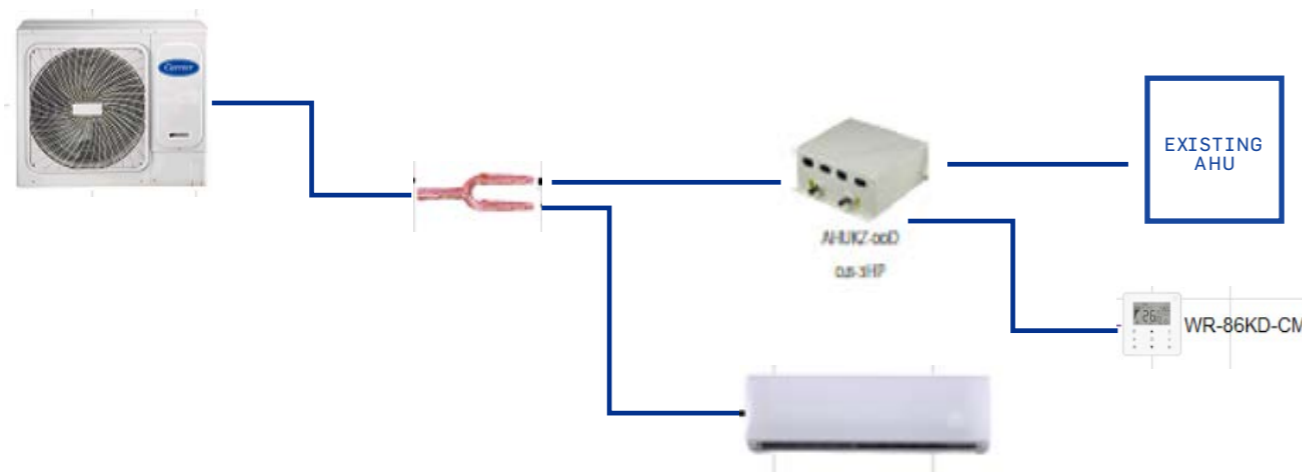
Wide Capacity Range

Two AHU Control box options for one-to-one retrofit applications, for an overall capacity range up to 6HP



Compatible with All VRF Systems

AHU kits are compatible with all Carrier VRF outdoor units and can be used together with all types of Carrier VRF indoor units.



Branch Header

Welding type (Applicable with Side discharge and top discharge VRF)

Dimension



Name	Gas side joints	Liquid side joints	Heat insulation material
header for 4 branches (DXFQT4-01)			
header for 8 branches (DXFQT8-01)			

Specification

Model		DXFQT4-01	DXFQT8-01
Max. total capacity of downstream indoor units		28kW	68kW
Max. number of downstream indoor units		4	8
Max. capacity of units per branch		16kW	16kW
Max. number of units per branch		1	1
Branch piping diameter (liquid pipe)		16mm	19mm
Branch piping diameter (gas pipe)		22mm	32mm
Max. connectable piping diameter (liquid pipe)		16mm	19mm
Max. connectable piping diameter (gas pipe)		25mm	32mm
Additional refrigerant charge		150g	250g
Diameter (indoor side)	Liquid pipe	ID6/ID9	ID6/ID9
	Gas pipe	ID12/ID16	ID12/ID16
Diameter (outdoor side)	Liquid pipe	ID9/ID12/ID16	ID12/ID16/ID19
	Gas pipe	ID19/ID22/ID25	ID25/ID28/ID32

Thread type (Applicable with MINI VRF only 8-16kW)

Name	Gas side joints (Φ15.9→Φ12.7)	Liquid side joints (Φ9.52→Φ6.35)	Heat insulation material	Adaptor
DXFQT2-02				Φ6.35→Φ9.52 (2 PC) Φ12.7→Φ15.9 (2 PC) Φ15.9→Φ19.1 (1 PC)
DXFQT3-02			 (Please cut off the excess)	Φ6.35→Φ9.52 (3 PC) Φ12.7→Φ15.9 (3 PC) Φ15.9→Φ19.1 (1 PC)
DXFQT4-02			 (Please cut off the excess)	Φ6.35→Φ9.52 (3 PC) Φ12.7→Φ15.9 (3 PC) Φ15.9→Φ19.1 (1 PC)
DXFQT5-02			 (Please cut off the excess)	Φ6.35→Φ9.52 (2 PC) Φ12.7→Φ15.9 (2 PC) Φ15.9→Φ19.1 (1 PC)
DXFQT6-02			 (Please cut off the excess)	Φ6.35→Φ9.52 (2 PC) Φ12.7→Φ15.9 (2 PC) Φ15.9→Φ19.1 (1 PC)

Wireless Remote Controllers	Wired Controllers	Centralized Controllers	Accessories
WL-12B-CM  Standard wireless remote for all non-ducted indoor units	WR-86KD-CM  Factory recommended thermostat	CRF-270C-CM 	Hotel Key Card Interface Module  CA-HKCW  CA-HKCS
WL-12F-CM 	WR-120G-CM 	CRF-15B-CM 	Infrared Sensor Controller  CA-IS
CONTROL SOLUTIONS 			Diagnosis software  VRF-DIAG-B XYE Extension Kit Indoor Unit Online Kit   CA-EK CAC-PIDU

WIFI Enable System

The Carrier Mini VRF can be controlled via WIFI with the installation of our Data Converter. For maximum comfort and convenience. Data converter sold separately, part# CIF-15B-CM

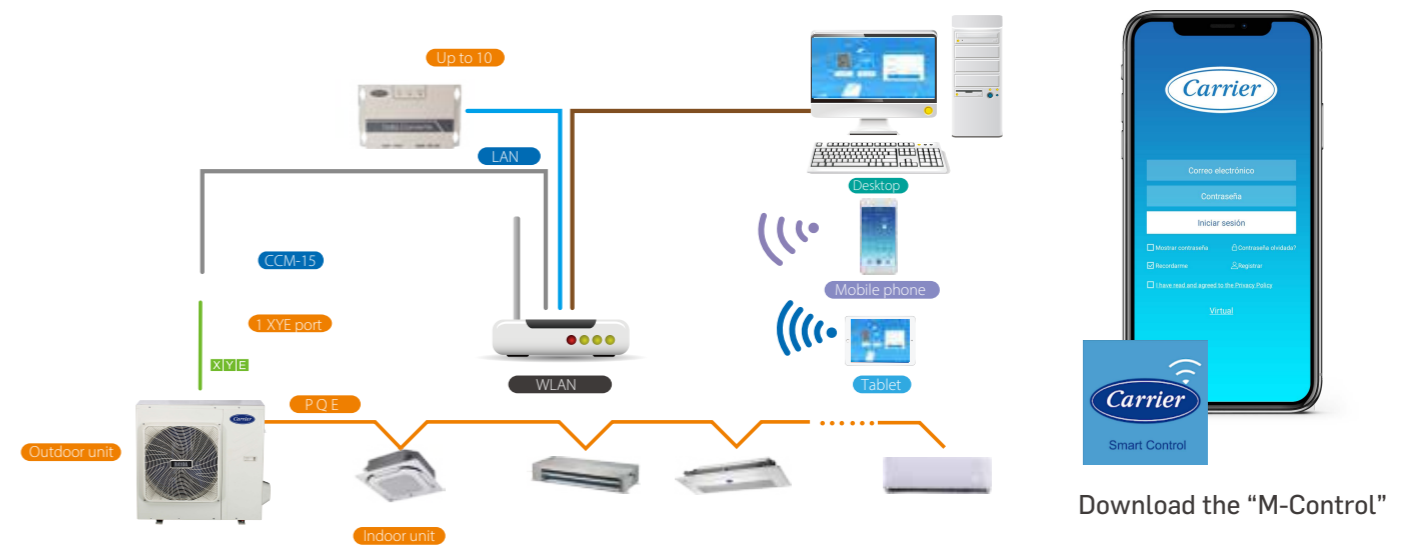


Compatible with
iphone, android, windows



Flexibility

The Data Converter can be connected directly to a network of indoor / outdoor units.



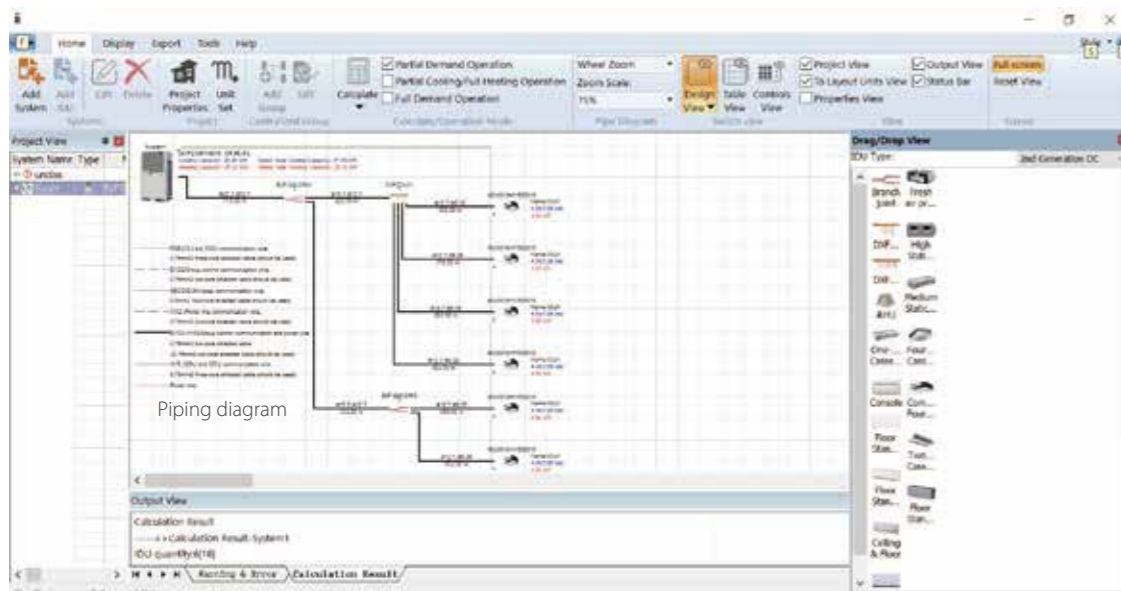


Selection Software "CSSP"

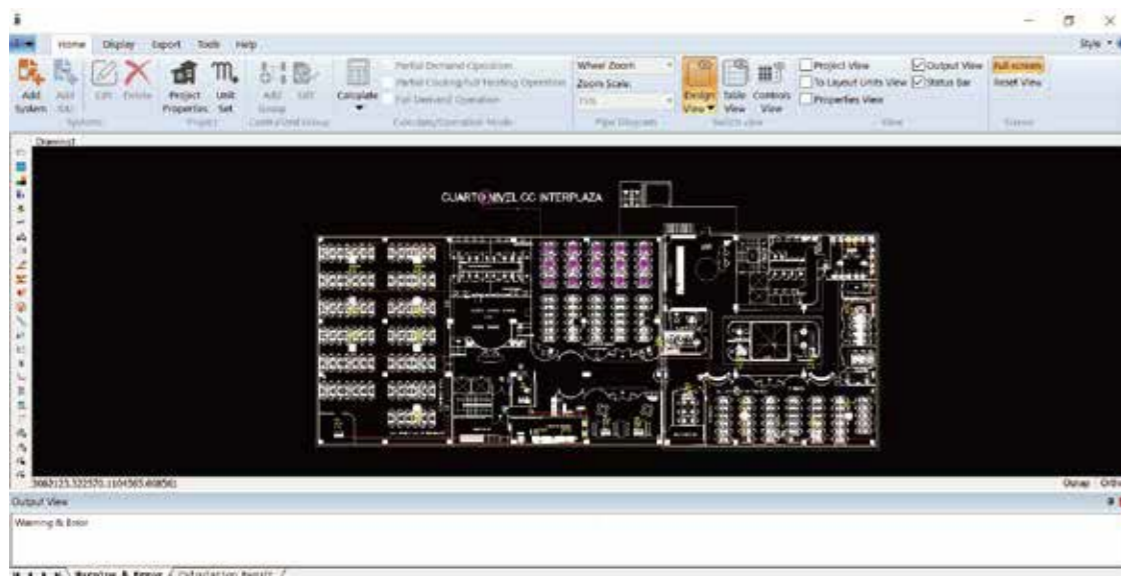
High Efficiency

Carrier's advanced design automation tool can be used by designers, consultants and distributors to greatly reduce the time and effort that must be devoted to the selection process. The software provides quick and convenient selectable options for users, supports multiple languages, and greatly improves the selection process.

The Selection Software provides distributors' sales team with a comprehensive selection of system design reports and calculations. Load calculations may be on either an initial estimate basis or detailed room-by-room basis. Based on the indoor units, outdoor units and controllers selected, the software produces detailed system layout diagrams and piping requirement calculations.



CAD View



Turn to the experts

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