

## Mini VRF H Series - Cooling Only 1 Phase

(50/60 Hz)



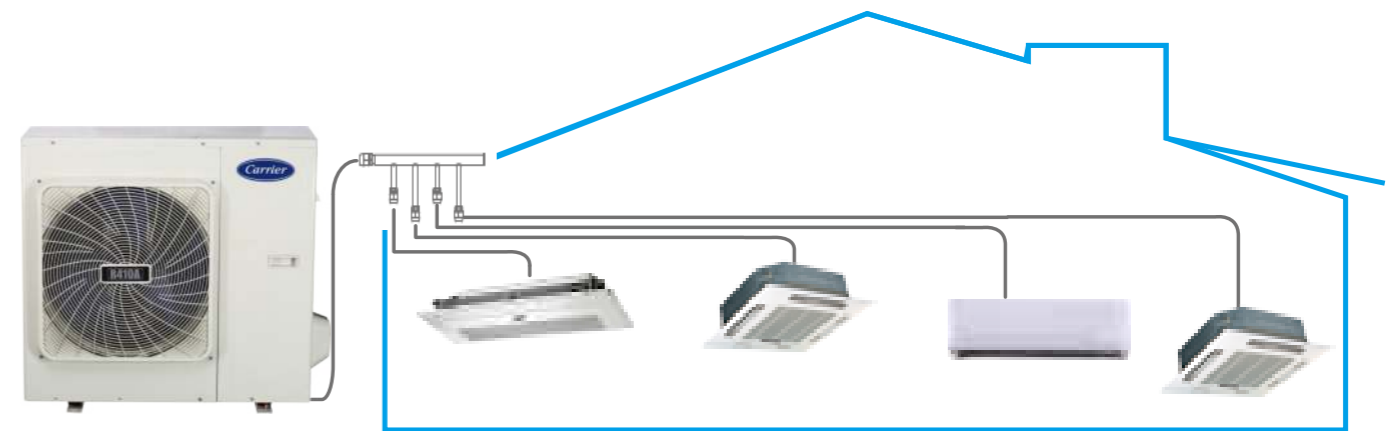
## Mini H Series-Cooling Only 1 Phase

### 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 - Cooling Only | Mini H Series-Cooling Only<br>220-240V/1Ph/50Hz &<br>208-230V/1Ph/60Hz |      |      |      |      |



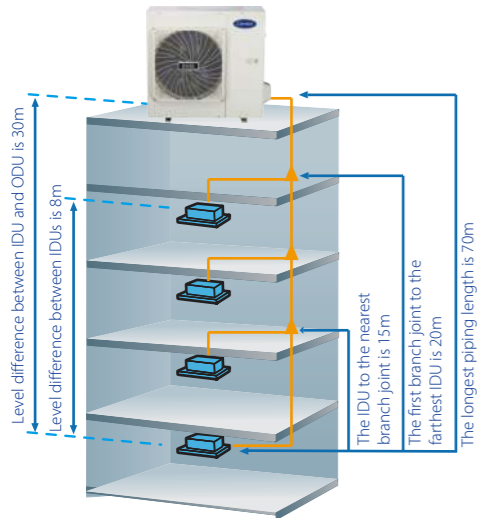
### Flexible indoor units connection

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.



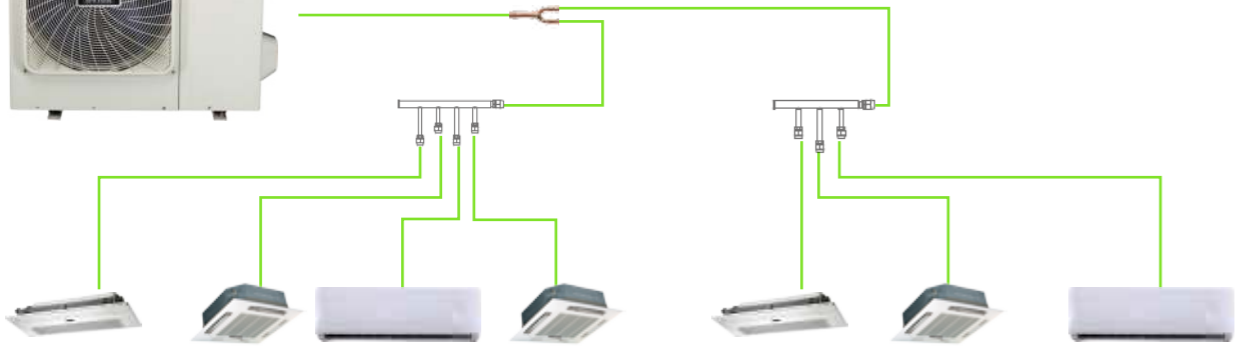
Mini H VRF piping capability

| Permitted value   |  | 3HP/4HP<br>(27.3/35.8kBTU/h) | 5HP/6HP<br>(47.8/52.9kBTU/h) |      |
|---|--|------------------------------|------------------------------|------|
| Piping length   | Total piping length (Actual)   | ≤100m                        | ≤100m                        |      |
|   | Longest piping (L)   | Actual length                | ≤45m                         | ≤60m |
|   |  | Equivalent length            | ≤50m                         | ≤70m |
|   | 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                         | ≤30m |
|   |  | Outdoor unit down            | ≤20m                         | ≤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),

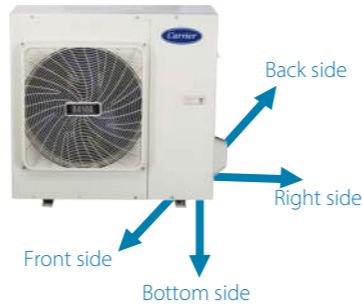
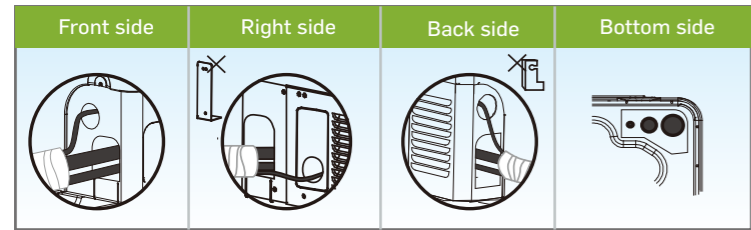
## New piping connection design

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.

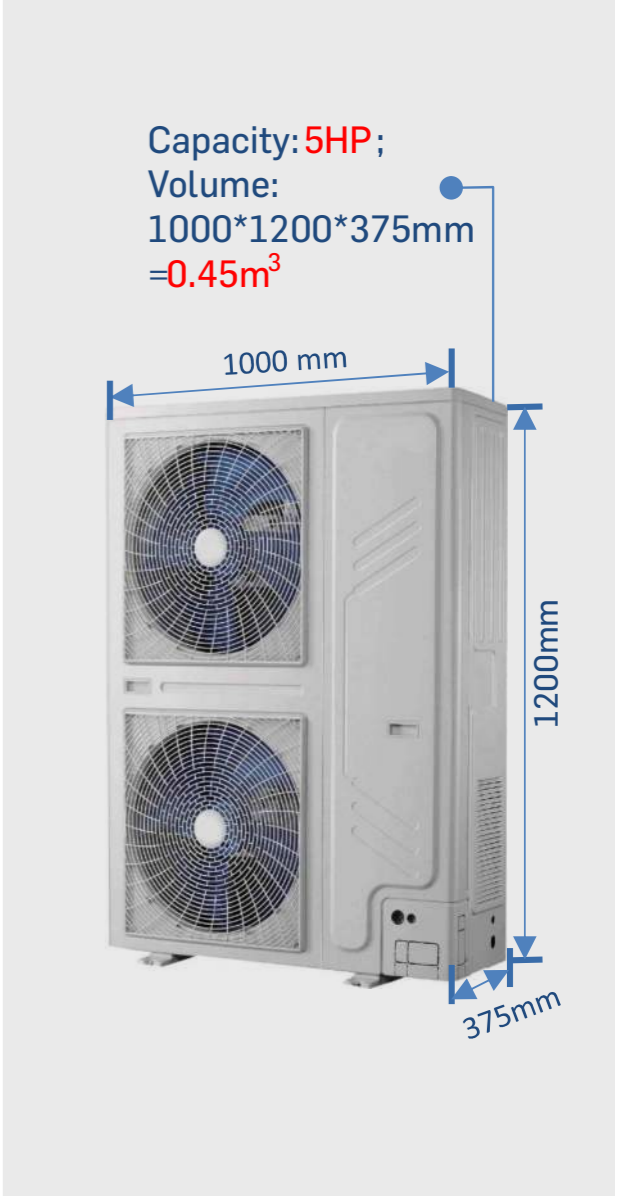
### Carrier Cooling Only line up vs Other Brand



38VR003C11A010  
38VR004C11A01S  
38VR004C11A010  
Capacity: 3HP / 4HP  
Volume: 973\*862\*302mm = 0.253m<sup>3</sup>



38VR005C11A010  
38VR006C11A010  
Capacity: 5HP / 6HP  
Volume: 1040\*865\*410mm = 0.47m<sup>3</sup>



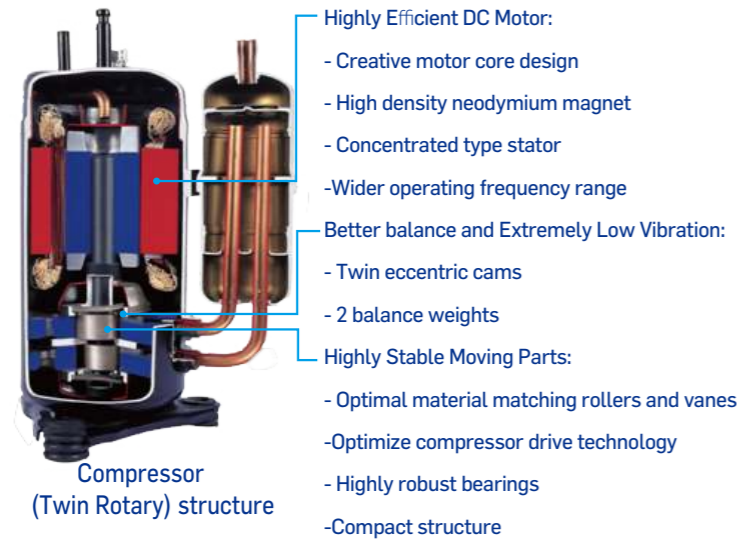
Capacity: 5HP;  
Volume: 1000\*1200\*375mm = 0.45m<sup>3</sup>

Carrier Mini H 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.

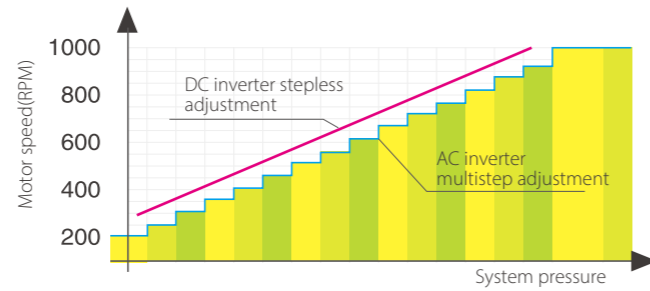
# Advanced Technologies

## 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.

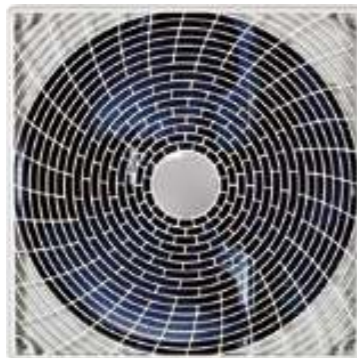


High efficiency DC fan motor saved power up to 50%.

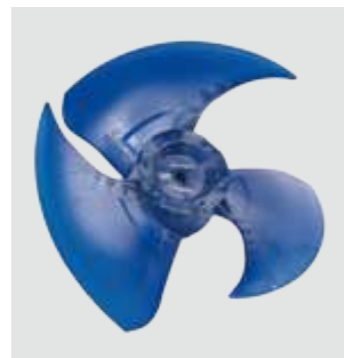


## Noise reducing design

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

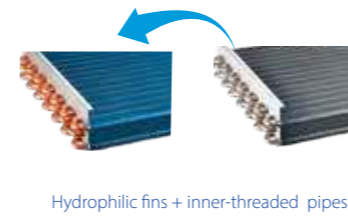


Newly Designed Fan Guard



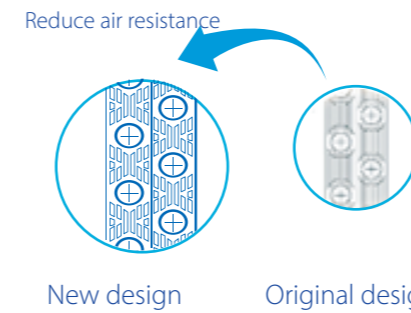
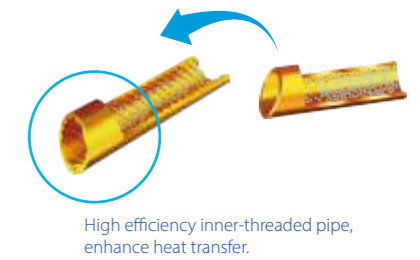
Powerful Large Propeller

## 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.

## Efficiency base on test result

Our units are tested under severe scenarios to ensure the efficiency under full and partial load. Representing a great option for those Hvac projects where energy savings is a key feature.

| Model          | Capacity (HP) | Capacity (kBtu/h) | EER (Btu/kw) | SEER | IEER |
|----------------|---------------|-------------------|--------------|------|------|
| 38VR003C11A010 | 3             | 24.6              | 15.0         | 17.2 | 31   |
| 38VR004C11A01S | 4             | 31.4              | 15.2         | 17.6 | 32.6 |
| 38VR004C11A010 | 4             | 37.5              | 13.6         | 15.6 | 30.1 |
| 38VR005C11A010 | 5             | 49.5              | 13.8         | 16   | 31.1 |
| 38VR006C11A010 | 6             | 58.0              | 14.5         | 16.7 | 31.5 |

EER: Efficiency energy ratio at full load (100%)

SEER: Seasonal energy efficiency ratio.

IEER: Integrated energy efficiency ratio (100%,75%, 50%, 25%)

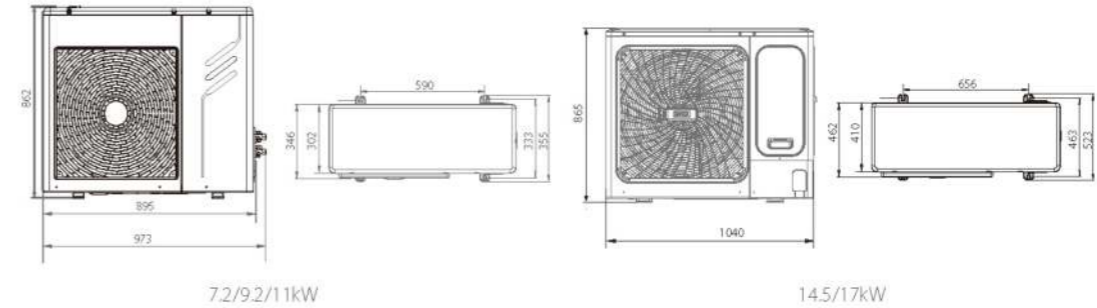
# Mini H Series-Cooling Only 1 Phase

## Specifications 50/60Hz

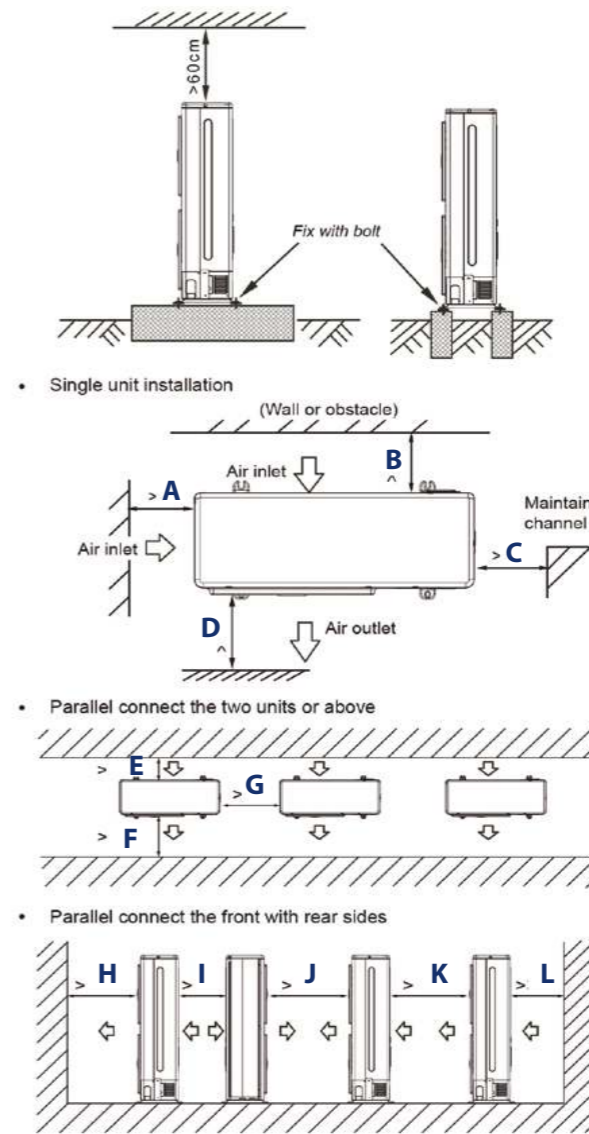
| Model name                        |                   | 38VR003C11A010                                  | 38VR004C11A01S | 38VR004C11A010 | 38VR005C11A010 | 38VR006C11A010 |       |
|-----------------------------------|-------------------|---|----------------|----------------|----------------|----------------|-------|
| Power supply                      | V-Ph-Hz           | 1-phase, 220-240V, 50Hz 1-phase, 208-230V, 60Hz |                |                |                |                |       |
| Cooling <sup>1</sup>              | Capacity          | kW  | 7.2            | 9.2            | 11             | 14.5           | 17    |
|                                   | Power input       | kW  | 1.64           | 2.13           | 2.75           | 3.57           | 4.24  |
|                                   | EER               |   | 4.39           | 4.32           | 4              | 4.06           | 4.26  |
| Connected indoor units            | Total capacity    | 45-130% of outdoor unit capacity                |                |                |                |                |       |
|                                   | Maximum quantity  |   | 4              | 5              | 6              | 8              | 9     |
| Compressor                        | Type              | DC inverter                                     |                |                |                |                |       |
|                                   | Quantity          | 1   |                |                |                |                |       |
| Fan motor                         | Motor Type        | DC  |                |                |                |                |       |
|                                   | Quantity          | 1   |                |                |                |                |       |
| Refrigerant                       | Type              | R410A   |                |                |                |                |       |
|                                   | Factory charging  | kg  | 1.4            | 1.4            | 1.4            | 2.6            | 2.6   |
| Pipe connections                  | Liquid pipe       | mm  | Φ9.53          | Φ9.53          | Φ9.53          | Φ9.53          | Φ9.53 |
|                                   | Gas pipe          | mm  | Φ15.9          | Φ15.9          | Φ15.9          | Φ15.9          | Φ15.9 |
| Airflow rate                      | m <sup>3</sup> /h | 3400  | 3400           | 3400           | 5100           | 5100           |       |
| Sound pressure level <sup>2</sup> | dB(A)             | 54  | 54             | 54             | 55             | 55             |       |
| Net dimensions (WxHxD)            | mm                | 973x862x302                                     | 973x862x302    | 973x862x302    | 1053x865x523   | 1053x865x523   |       |
| Packed dimensions (WxHxD)         | mm                | 1025x910x410                                    | 1025x910x410   | 1025x910x410   | 1120x890x560   | 1120x890x560   |       |
| Net weight                        | kg                | 58  | 58             | 58             | 85             | 85             |       |
| Gross weight                      | kg                | 63  | 63             | 63             | 92             | 92             |       |
| Operating temperature range       | °C                | Cooling: -5 to 48                               |                |                |                |                |       |

**Notes:**  
 1. Indoor air temperature 27°C (80.6°F), 19°C (66.2°F) WB; outdoor air temperature 35°C (95°F); equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.  
 2. Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.  
 3. For a system with more than one IDU, to ensure even distribution of refrigerant, the capacity of each indoor unit should not exceed 8kW.

## Mini H Series-Cooling Only



## Unit install space allowance



| 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<br>(6-24Kbtu)                 |  | 2-way cassette<br>(7-24Kbtu)            |
|  | 4-way cassette<br>(9-24Kbtu)                 |  | Compact<br>4-way cassette<br>(7-16Kbtu) |
|  | Medium static<br>pressure duct<br>(7-60Kbtu) |  | Wall-mounted<br>(7-30Kbtu)              |
|  | High static<br>pressure duct<br>(24-190Kbtu) |  | Ceiling & Flooring<br>(12-60Kbtu)       |
|  | Heat Recovery<br>Ventilator<br>(42-96Kbtu)   |  | Vertical<br>(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.



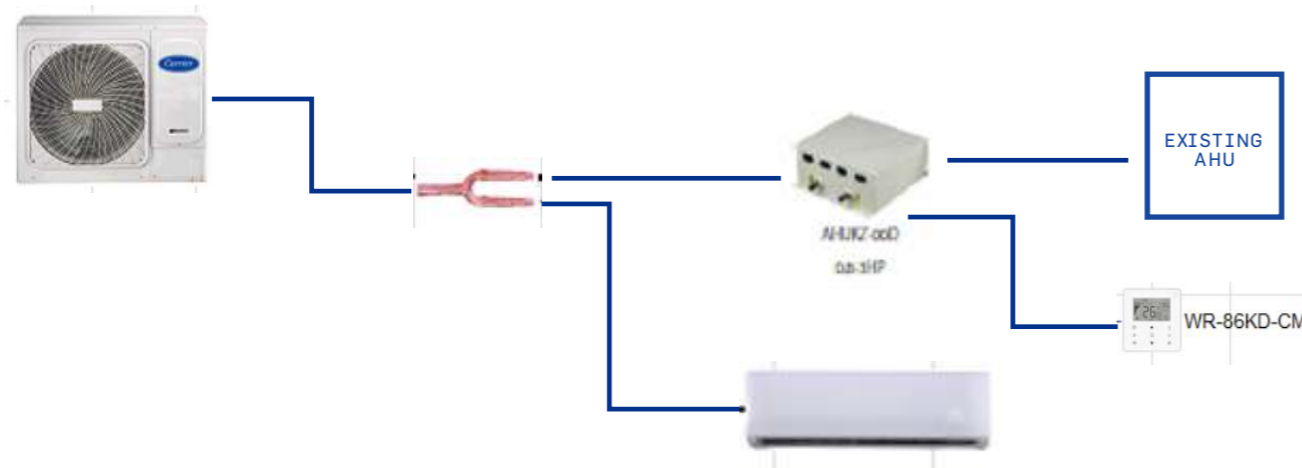
### Wide Capacity Range

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













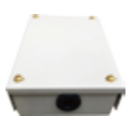
| Name                              | Gas side joints | Liquid side joints | Heat insulation material |
|-----------------------------------|-----------------|--------------------|--------------------------|
| header for 4 branches (DXFQT4-01) |                 |                    |                          |
| 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)<br>Φ12.7→Φ15.9 (2 PC)<br>Φ15.9→Φ19.1 (1 PC) |
| DXFQT3-02 |                               |                                  | <br>(Please cut off the excess) | Φ6.35→Φ9.52 (3 PC)<br>Φ12.7→Φ15.9 (3 PC)<br>Φ15.9→Φ19.1 (1 PC) |
| DXFQT4-02 |                               |                                  | <br>(Please cut off the excess) | Φ6.35→Φ9.52 (3 PC)<br>Φ12.7→Φ15.9 (3 PC)<br>Φ15.9→Φ19.1 (1 PC) |
| DXFQT5-02 |                               |                                  | <br>(Please cut off the excess) | Φ6.35→Φ9.52 (2 PC)<br>Φ12.7→Φ15.9 (2 PC)<br>Φ15.9→Φ19.1 (1 PC) |
| DXFQT6-02 |                               |                                  | <br>(Please cut off the excess) | Φ6.35→Φ9.52 (2 PC)<br>Φ12.7→Φ15.9 (2 PC)<br>Φ15.9→Φ19.1 (1 PC) |

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

## 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

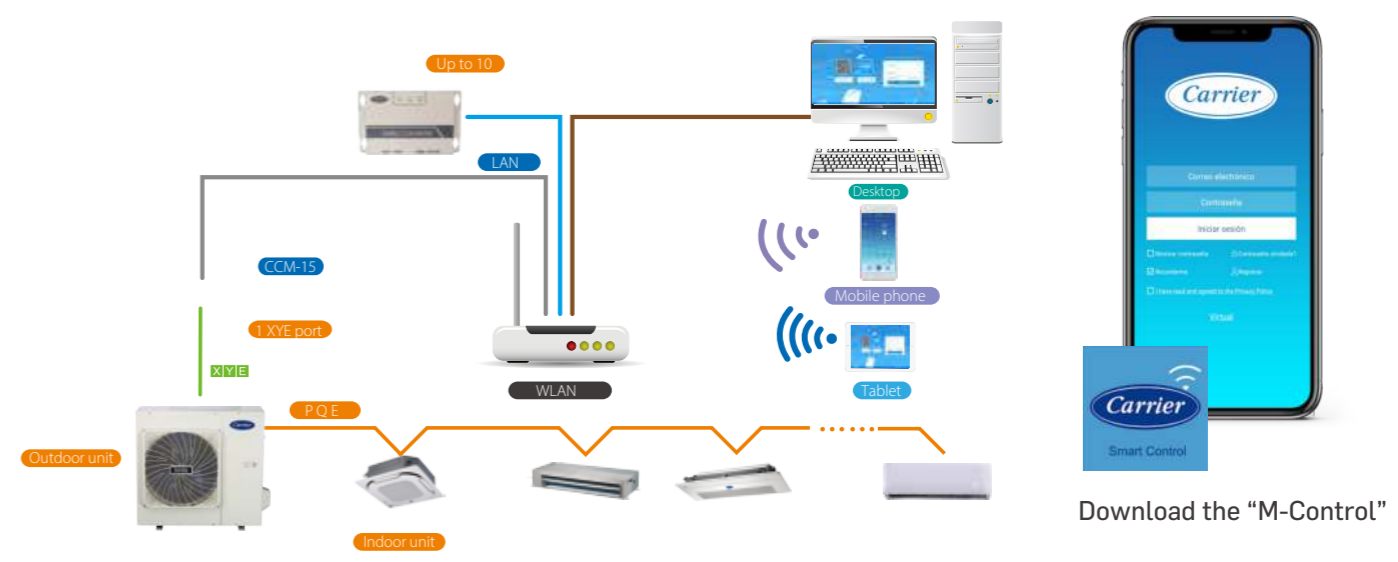


Compatible with  
iphone, android, windows



## Flexibility

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



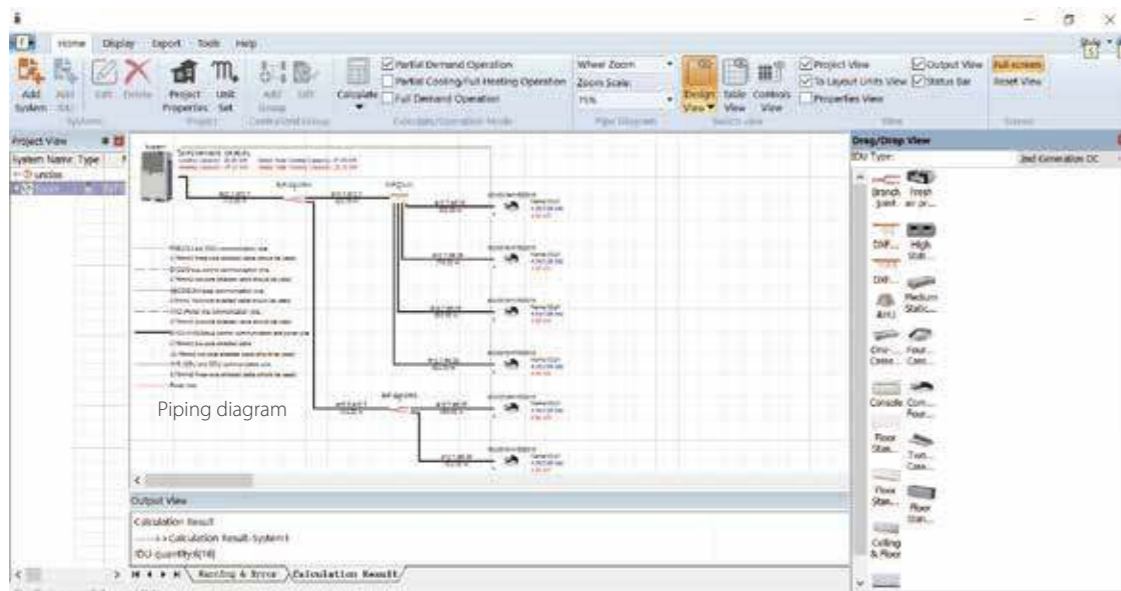
Download the "M-Control"

# Selection Software "CSSP"

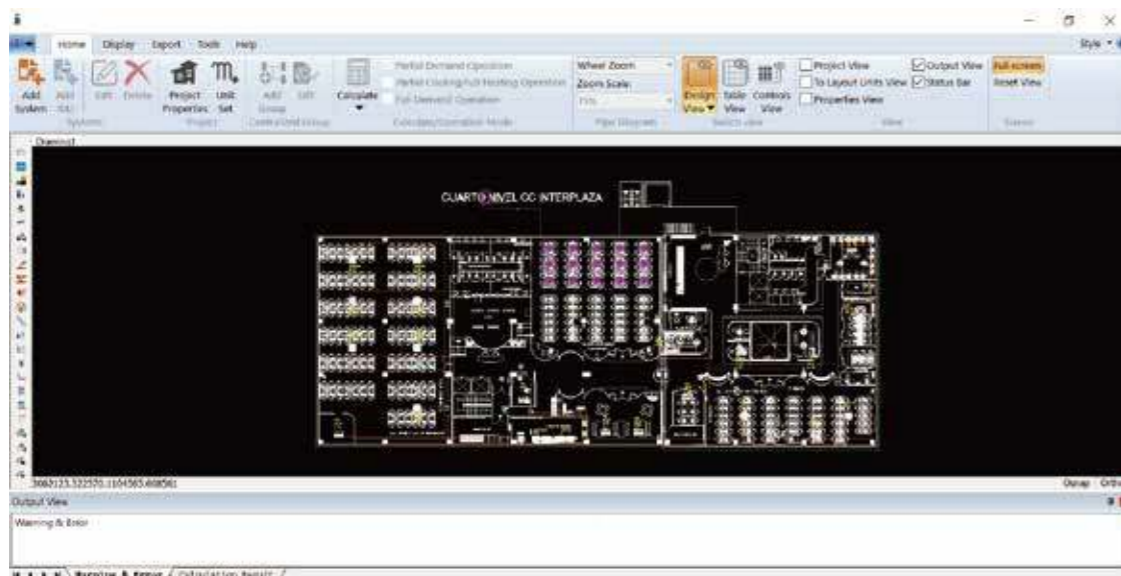
## High Efficiency

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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