

# VRF SYSTEMS



- Quiet operation
- Low noise design
- Precise temperature control
- Intelligent defrost technology
- Individual control
- Modular operating

- Emergency operation
- Wide voltage range operation
- Power supply security
- Continuous operation of indoor unit
- PCB protection design
- Anti-corrosion

- New generation of oil return control
- High efficiency oil-balanced technology
- Compact design
- Various combinations
- Easier maintainability
- Easier transportation and installations

### VRF MINI

#### HIGH EFFICIENCY DC INVERTER COMPRESSOR

Twin-rotary DC inverter compressor

- Use high efficiency and reliability compressor
- Rotating speed can be down to 20RPS
- Has very good efficiency in part load condition

High Efficiency, Low Noise:

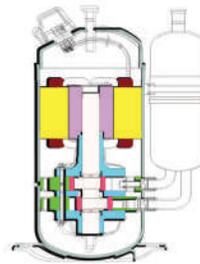
- Optimized the efficiency and noise during operation with the latest technology

Environmental Protection:

- Developed the compressor with alternative refrigerant which can protect environment.

Low Vibration:

- Reduced the vibration during compressor start and operation by using 2CYL Structure, simplified the match of air-conditioning.



High efficiency

High reliability

Low vibration

Low noise

Long life



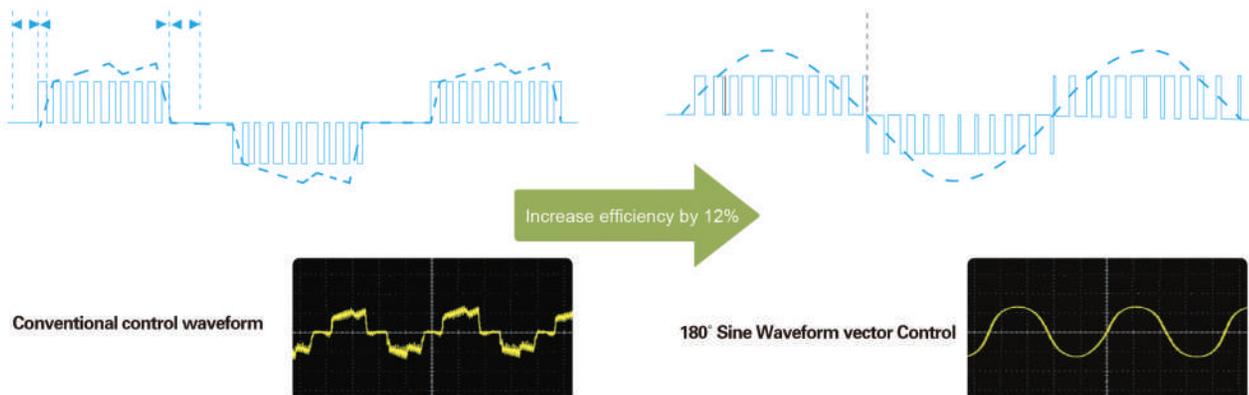
#### HIGH EFFICIENCY DC MOTOR



- > High efficiency DC motor
- > Low noise and high efficiency because of high-density wire winding engineering
- > Brushless with built-in sensor

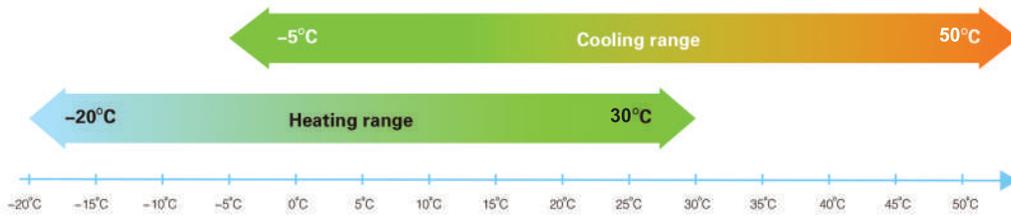
#### 180° SINE WAVE CONTROL

The perfect combination of 180° Sine wave rotor frequency drive control technology and excellent IPM inverters, reduces the reactive loss of motor-driven, increases motor efficiency by 12%.



## WIDE OUTDOOR OPERATION RANGE

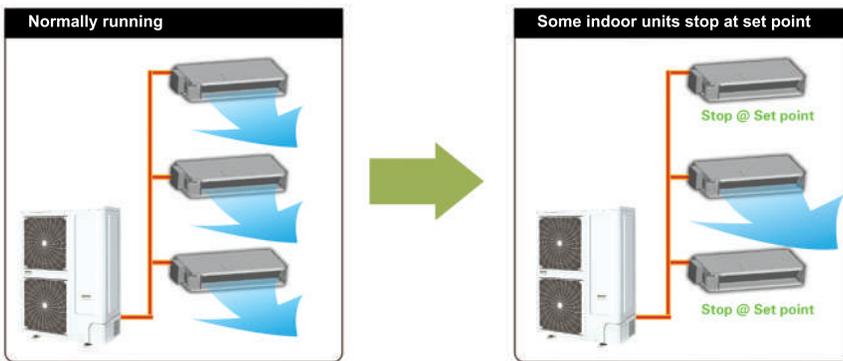
Because global warming is getting worse, Max. cooling operating temperature is increased to 50°C. Heating operating temperature is down to -20°C. In the cold winter, system can heat the room continuously.



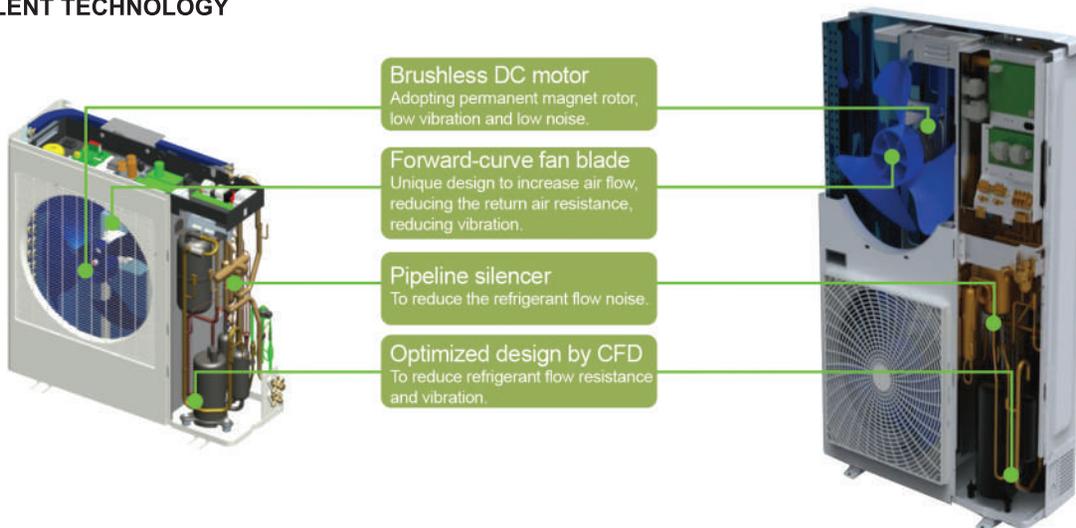
Outdoor unit running at temperature above 50°C need customized in factory, please consult to sales engineer.

## FAST COOLING AND HEATING

Every rooms meet set point most quickly and comfortably by optimized refrigerant control.

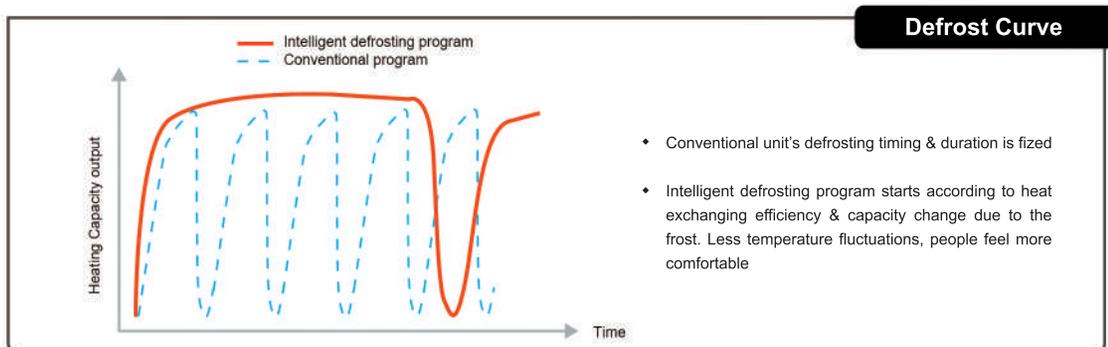


## SILENT TECHNOLOGY



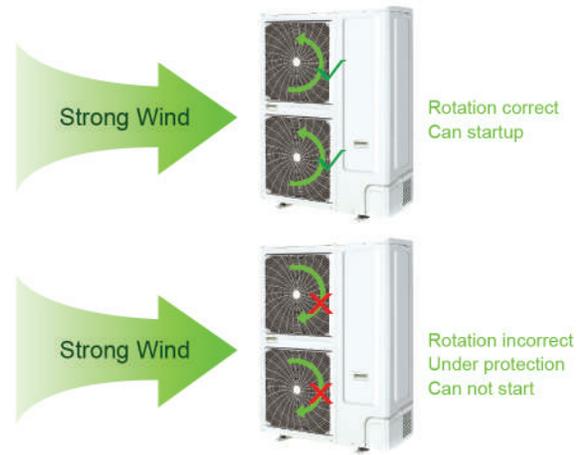
## INTELLIGENT DEFROSTING PROGRAM

Program starts only when unit needs to. Whereas conventional unit's defrosting timing & duration is fixed, causing fluctuations in temperature and personal comfort.



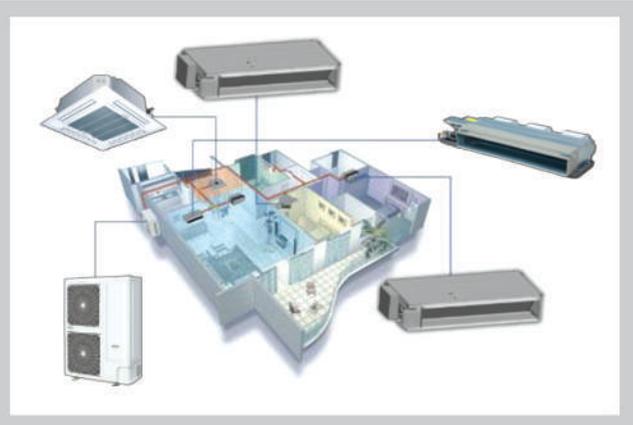
## FAN REVERSAL PROTECTION

If standby, if the outdoor fan motor is rotating in opposite direction at a high speed by the wind or other natural factors, the unit can't start so as to keep the fan motor from broken down. It will start when the fan motor speed slow down.



## SPACE SAVING INSTALLATION

Multiple indoor units can be connected to 1 outdoor unit, and long piping connection is also possible. Compare to one-drive-one type, the outdoor unit can be installed in various places to realize the space-saving installation.



## ACTIVE PFC MODULE

PFC: Power Factor Corrector

There will be a power loss because of the different phases between the voltage and current.

With the PFC module, the power utilization rate is higher, power factor can be up to 98%. System will be more efficiency.

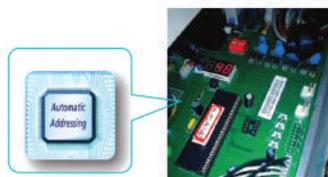


- **Power factor** refers to the relationship between effective power and total power consumption, power factor is effective power divided by total power consumption.
- **Power factor** can measure power utilization rate, the power factor bigger, the higher power utilization rate.

## AUTOMATICALLY ADDRESSING

Automatically addressing: system will distribute address to indoor unit automatically

Automatic addressing will reduce artificial faults and manual works.

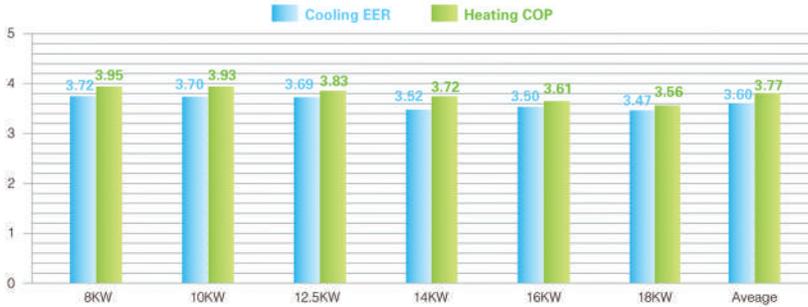


## LED DISPLAY ON PCB

LED display on the PCB, it can show system's operation status and error codes.



## EER & COP



## LONG PIPING & HEIGHT DIFFERENCE

The total pipe length: 100m

The longest pipe:

- Actual length: 60m
- Equivalent length: 70m

Equivalent length from first indoor distributor to last indoor unit: 20m

Height difference between indoor and outdoor unit:

- Outdoor unit above <30m
- Outdoor unit below <20m

Height difference between indoor units: 8m

## DC INVERTER SERIES, 1-PHASE

| Model                                |             |         | RCOF080AR1         | RCOF100AR1        |
|--------------------------------------|-------------|---------|--------------------|-------------------|
| Capacity                             | Cooling     | kW      | 8,0                | 10,0              |
|                                      | Heating     |         | 9,0                | 11,0              |
| EER / COP                            | W           |         | 3,72/3,95          | 3,7/3,93          |
| Power supply                         | F, V, Hz    |         | 1F, 220~240V, 50HZ |                   |
| Power input                          | Cooling     | kW      | 2,15               | 2,68              |
|                                      | Heating     |         | 2,28               | 2,9               |
| Refrigerant charge volume            | kg          |         | 3                  | 3                 |
| Compressor                           | Quantity    | unit    | 1                  | 1                 |
| Outline dimension                    | HxWxD       | mm      | 1054 x 994 x 399   | 1054 x 994 x 399  |
| Package dimension                    | HxWxD       | mm      | 1145 x 1120 x 475  | 1145 x 1120 x 475 |
| Weight                               | Net / Gross | kg      | 80/92              | 80/92             |
| Sound pressure level                 | dB          |         | 56                 | 56                |
| Operating temperature                | Cooling     | °C      | -5~+50             | -5~+50            |
|                                      | Heating     |         | -20~+30            | -20~+30           |
| Piping connection                    | Gas         | mm (in) | 15,9 (5/8)         | 15,9 (5/8)        |
|                                      | Liquid      |         | 9,52 (3/8)         | 9,52 (3/8)        |
| Maximum indoor unit                  | Quantity    | unit    | 4                  | 6                 |
| Maximum total length of fitting pipe | m           |         | 100                | 100               |



### BENEFITS:

- ♦ Long pipe and height difference
- ♦ High efficiency DC inverter compressor
- ♦ High efficiency DC motor
- ♦ Fast cooling and heating
- ♦ Intelligent defrosting program
- ♦ Fan reversal protector
- ♦ Active PFC (power factor corrector) module

## DC INVERTER SERIES, 3-PHASE

| Model                                |             |         | RCOF125FR1        | RCOF140FR1       | RCOF160FR1       | RCOF180FR1       | RCOF224FR1        | RCOF260FR1        | RCOF275FR1        | RCOF330FR1        |
|--------------------------------------|-------------|---------|-------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| Capacity                             | Cooling     | kW      | 12,5              | 14,0             | 16,0             | 18,0             | 22,4              | 26,0              | 28,0              | 33,5              |
|                                      | Heating     |         | 14,0              | 16,0             | 18,0             | 20,0             | 25,0              | 28,5              | 31,5              | 37,5              |
| EER / COP                            | W           |         | 3,69 / 3,83       | 3,52 / 3,72      | 3,5/3,61         | 3,47/3,56        | 3,32/4,27         | 3,45 / 4,21       | 3,37/3,85         | 3,54 / 4,17       |
| Power supply                         | F, V, Hz    |         | 3F,380~415V, 60Hz |                  |                  |                  |                   |                   |                   |                   |
| Power input                          | Cooling     | kW      | 3,38              | 3,98             | 4,58             | 5,19             | 6,74              | 7,54              | 8,32              | 9,45              |
|                                      | Heating     |         | 3,66              | 4,30             | 5,13             | 5,62             | 5,85              | 6,77              | 7,93              | 9,00              |
| Refrigerant charge volume            | kg          |         | 3,10              | 3,45             | 4,20             | 4,55             | 6,10              | 6,10              | 8,00              | 8,00              |
| Compressor                           | Quantity    | unit    | 1                 | 1                | 1                | 1                | 1                 | 1                 | 1                 | 1                 |
| Outline dimension                    | HxWxD       | mm      | 900 x 1328 x 345  | 900 x 1328 x 345 | 900 x 1328 x 345 | 900 x 1328 x 345 | 1120 x 1549 x 528 |
| Package dimension                    | HxWxD       | mm      | 964 x 1445 x 402  | 964 x 1445 x 402 | 964 x 1445 x 402 | 964 x 1445 x 402 | 1278 x 1696 x 560 |
| Weight                               | Net / Gross | kg      | 93 / 104,0        | 93 / 104,0       | 100,0 / 111,0    | 102/112          | 145,0 / 165,0     | 145,0 / 165,0     | 176,0 / 196,0     | 176,0 / 196,0     |
| Sound pressure level                 | dB          |         | 56                | 56               | 58               | 58               | 58                | 60                | 60                | 60                |
| Operating temperature                | Cooling     | °C      | -5~+50            | -5~+50           | -5~+50           | -5~+50           | -5~+50            | -5~+50            | -5~+50            | -5~+50            |
|                                      | Heating     |         | -20~+30           | -20~+30          | -20~+30          | -20~+30          | -20~+30           | -20~+30           | -20~+30           | -20~+30           |
| Piping connection                    | Gas         | mm (in) | 15,9 (5/8)        | 15,9 (5/8)       | 15,9 (5/8)       | 19,1 (3/4)       | 22,2 (7/8)        | 22,2 (7/8)        | 28,6 (1 1/8)      | 28,6 (1 1/8)      |
|                                      | Liquid      |         | 9,52 (3/8)        | 9,52 (3/8)       | 9,52 (3/8)       | 9,52 (3/8)       | 9,52 (3/8)        | 9,52 (3/8)        | 12,7 (1/2)        | 12,7 (1/2)        |
| Maximum indoor unit                  | Quantity    | unit    | 7                 | 8                | 9                | 10               | 13                | 15                | 16                | 19                |
| Maximum total length of fitting pipe | m           |         | 100               | 100              | 100              | 100              | 120               | 120               | 120               | 120               |

# VRF MODULAR SERIES

## BENEFITS FOR USERS:

- ◆ *Livable environment creator*
- ◆ *Excellent in EER and COP*
- ◆ *Outstanding comfort ability*
- ◆ *Wide operating range*
- ◆ *Improvements to reduce noise*
- ◆ *Low noise fan blade*
- ◆ *Silent mode, night time noise control*
- ◆ *Anti-snow function*
- ◆ *All outdoor units cycle operation*
- ◆ *Intelligent defrosting program*
- ◆ *Emergency stop operation function*
- ◆ *Flexible for all kinds of rooms*
- ◆ *Environment friendly*

## BENEFITS FOR INSTALLERS:

- ◆ *4 units combinations*
- ◆ *Adjustable outdoor fan external static pressure*
- ◆ *Automatic addressing*
- ◆ *Addressing methods*
- ◆ *LED display on the PCB*
- ◆ *Service window on the electric control box*
- ◆ *Mode restriction*
- ◆ *Oil control technology*
- ◆ *3-Phase power protector*
- ◆ *Easy for transportation*
- ◆ *Long pipe and height difference*
- ◆ *Use 2-core shielded wire as signal wire*

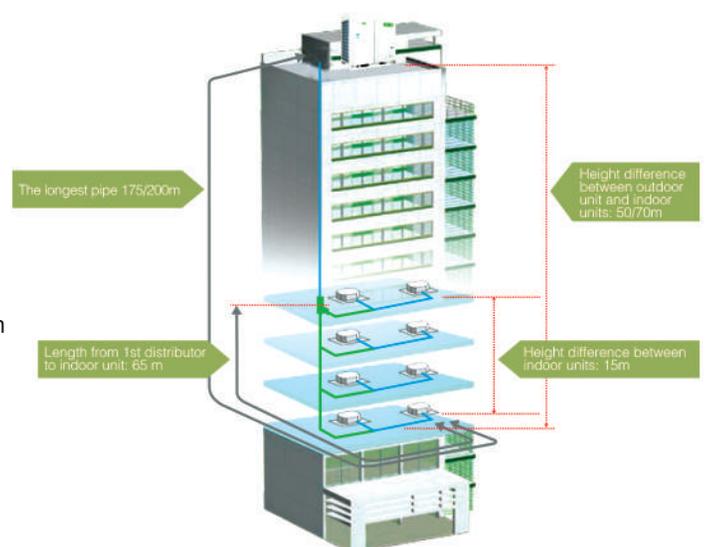
## 7 IMPROVEMENTS TO REDUCE NOISE

Maximum 10dB(A) of operating sound decrease.



## LONG PIPING & HEIGHT DIFFERENCE

- The total pipe length: 1000m
- The longest pipe :  
Actual length 175m  
Equivalent length 200m
- Equivalent length from first indoor distributor to last indoor unit: 65m
- Height difference between indoor and outdoor unit:  
Outdoor unit above <50m  
Outdoor unit below <70m
- Height difference between indoor units: 15m



# BENEFITS FOR USER

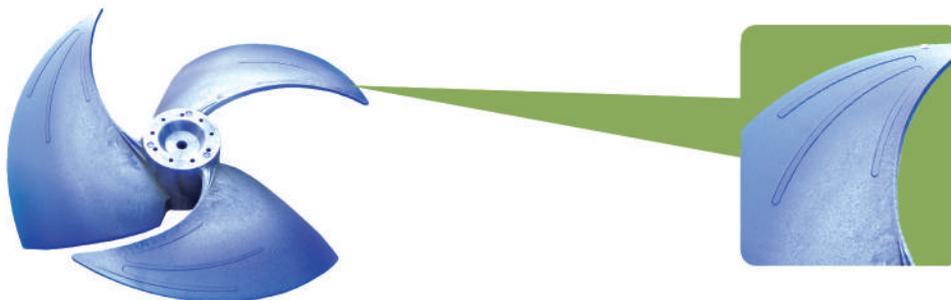
## Livable environment creator

Refra focuses on starting point of AC system: create a friendly, comfortable and pleasant living environment as always. New VRF DC VRF system's comfort technologies include quick cooling and heating, precise temperature control, low noise, use environmental friendly refrigerant and so on, we strive to create livable environment for users...



### LOW NOISE FAN BLADE

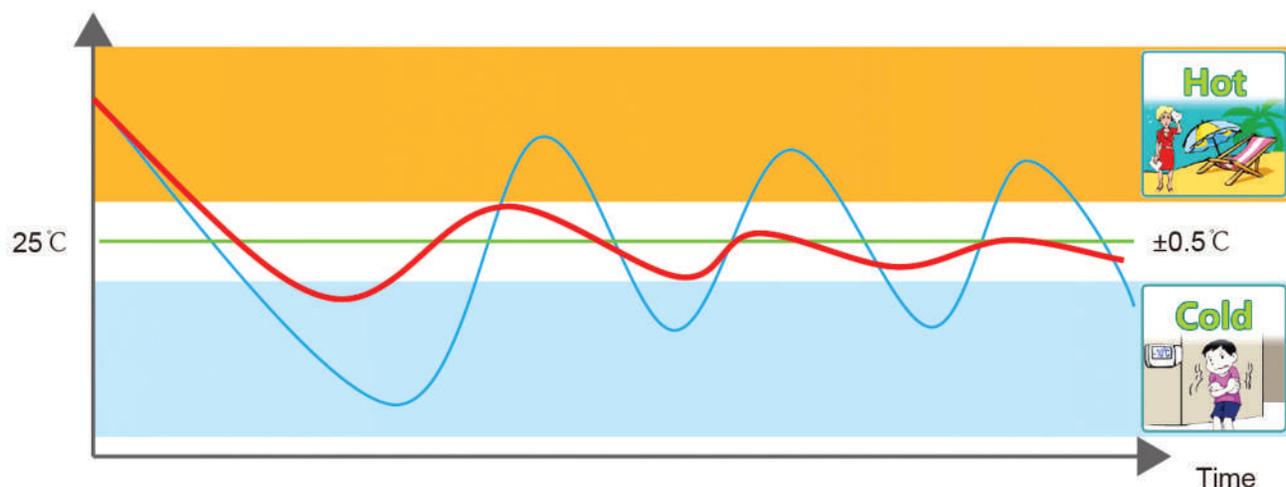
- > Anti-vibration forward fan blade.
- > Special design to reduce the air vibration and disturbance.



### OUTSTANDING COMFORT ABILITY

- > Refra VRF system have excellent cooling & heating performance, thanks to the high efficiency DC fan motor, DC compressor and optimized refrigerant flow control logic.
- > Precisely room temperature control by adopting 2000 pulse EXV. Indoor temperature fluctuation can be maintain within 0,5 °C, offers outstanding comfort ability.

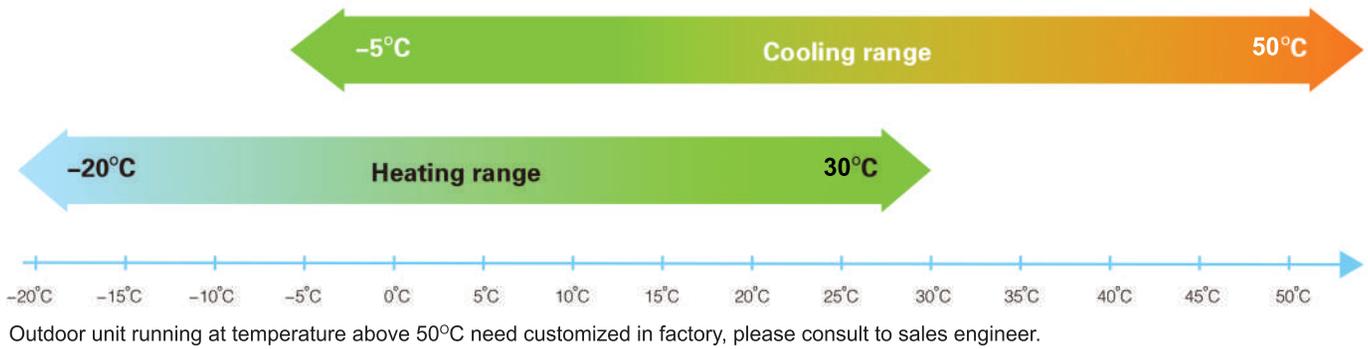
Room Temperature      — Refra system      — Conventional fixed speed system



## WIDE OPERATION RANGE

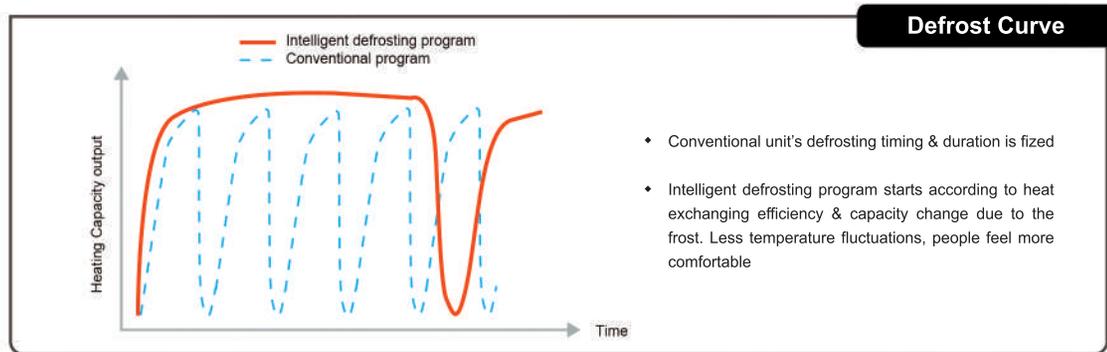
Cooling operating temperature is up to 50°C, suitable for the hot region.

Heating operating temperature is down to -20°C. In the cold winter, VRF system can stably produce heat.



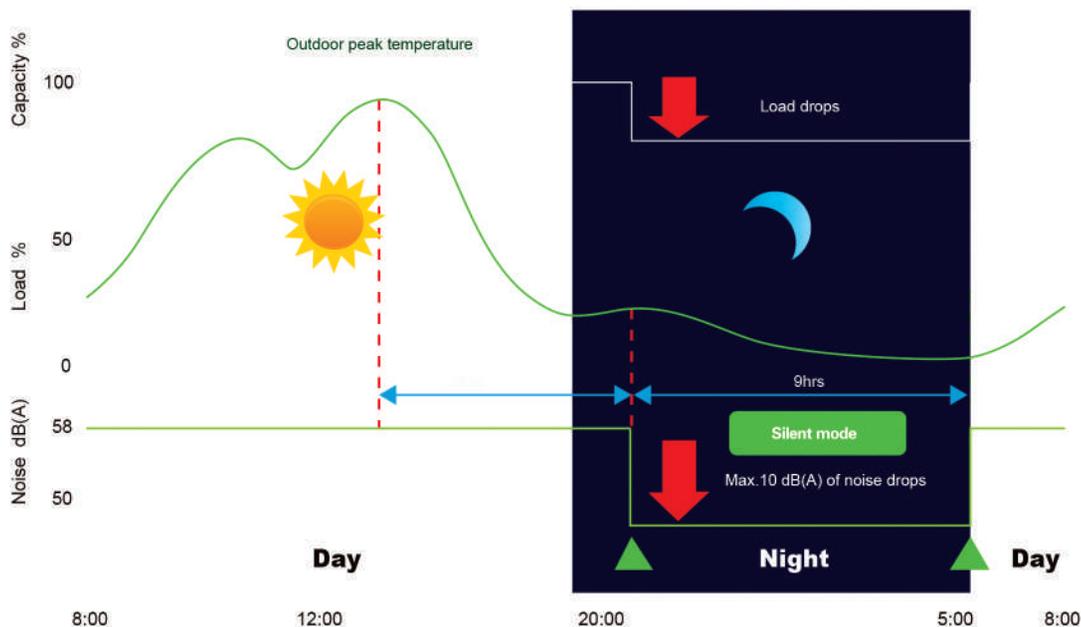
## INTELLIGENT DEFROSTING PROGRAM

Program starts only when unit needs to. Whereas conventional unit's defrosting timing & duration is fixed, causing fluctuations in temperature and personal comfort.



## SILENT MODE, NIGHT TIME NOISE CONTROL

Compressor and fan motor rotating speed can be reduced to lower the noise at night. Maximum 10dB(A) decrease.



### SNOW-PROOF FUNCTION

In the cold weather, outdoor fan will start to run for a while at intervals, for preventing the snow to accumulate on fan blade. Because accumulated snow will freeze and block fan blade rotating, even worse it will damage the motor.

It only start when temperature is lower than 0°C.



### THE PHE ECONOMIZER

PHE Economizer technology provide a additional sub cooling.

Improved heat exchanger + PHE economizer + Optimized control logic

Heating performance highly increased



The PHE economizer need customization.

### 3-STAGE BACK UP FUNCTION

- > Module back up function.
- > When some modules are failure, the others can keep running by simply settings.



- > Compressor back up function
- > When one compressor is failure, the other one can keep running by simply settings.



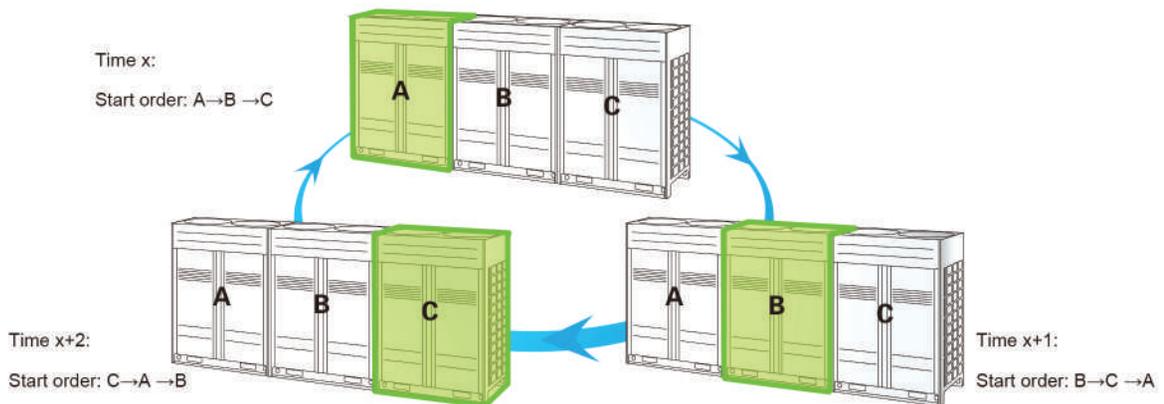
- > Fan motor back up function.
- > When one fan motor is failure, the other one can keep running by simply settings.



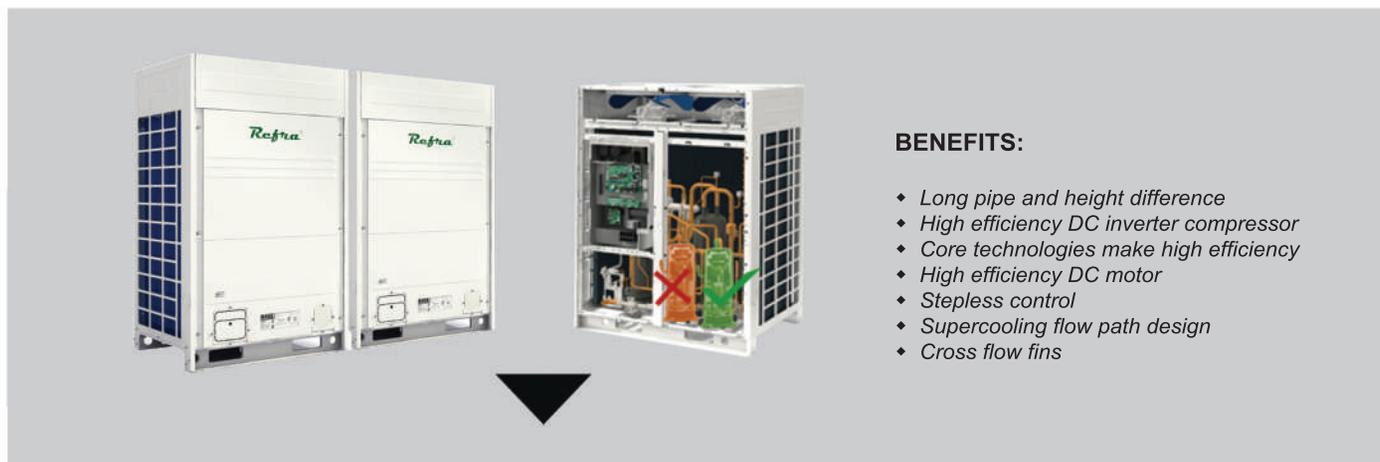
### ALL OUTDOORS UNITS CYCLE OPERATION

In one combination system, any outdoor unit can run as master unit.

Balance the lifespan among outdoor units in one system.



## DC INVERTER MODULAR SERIES



### BENEFITS:

- ◆ Long pipe and height difference
- ◆ High efficiency DC inverter compressor
- ◆ Core technologies make high efficiency
- ◆ High efficiency DC motor
- ◆ Stepless control
- ◆ Supercooling flow path design
- ◆ Cross flow fins

| Model                                |             |      | RCOF252FR1         | RCOF280FR1    | RCOF335FR1    | RCOF400FR1    | RCOF450FR1    | RCOF500FR1    |
|--------------------------------------|-------------|------|--------------------|---------------|---------------|---------------|---------------|---------------|
| Capacity                             | Cooling     | kW   | 25,2               | 28,0          | 33,5          | 40,0          | 45,0          | 50,0          |
|                                      | Heating     |      | 27,4               | 31,5          | 37,5          | 45,0          | 50,0          | 56,0          |
| EER / COP                            | W           |      | 4,35 / 4,66        | 4,04 / 4,38   | 3,95 / 4,26   | 3,78 / 4,10   | 3,54 / 4,02   | 3,46 / 3,96   |
| Power supply                         | F, V, Hz    |      | 3F, 380~415V, 50Hz |               |               |               |               |               |
| Power input                          | Cooling     | kW   | 5,79               | 6,93          | 8,48          | 10,58         | 12,71         | 14,45         |
|                                      | Heating     |      | 5,88               | 7,19          | 8,80          | 10,98         | 12,44         | 14,14         |
| Refrigerant charge volume            | kg          |      | 10,00              | 10,00         | 12,00         | 16,00         | 16,00         | 16,00         |
| Compressor                           | Type        |      | Scroll             |               |               |               |               |               |
|                                      | Quantity    | unit | 1                  | 1             | 1             | 2             | 2             | 2             |
| Outline dimension                    | WxHxD       | mm   | 970x1620x765       | 970x1620x765  | 1260x1620x765 | 1260x1620x765 | 1260x1620x765 | 1260x1620x765 |
| Package dimension                    | WxHxD       | mm   | 1030x1750x825      | 1030x1750x825 | 1315x1750x825 | 1315x1750x825 | 1315x1750x825 | 1315x1750x825 |
| Weight                               | Net / Gross | kg   | 208 / 218          | 208 / 218     | 242 / 254     | 286 / 298     | 286 / 298     | 314 / 326     |
|                                      | dB          |      | 58                 | 58            | 58            | 60            | 60            | 60            |
| Operating temperature                | Cooling     | °C   | -5~+50             | -5~+50        | -5~+50        | -5~+50        | -5~+50        | -5~+50        |
|                                      | Heating     |      | -20~+30            | -20~+30       | -20~+30       | -20~+30       | -20~+30       | -20~+30       |
| Piping connection                    | Gas         | mm   | 25,4               | 25,4          | 28,6          | 31,8          | 31,8          | 31,8          |
|                                      | Liquid      | (in) | 12,7               | 12,7          | 15,9          | 15,9          | 15,9          | 15,9          |
| Maximum indoor unit                  | Quantity    | unit | 13                 | 16            | 16            | 20            | 20            | 20            |
| Maximum total length of fitting pipe | m           |      | 200                | 200           | 200           | 200           | 200           | 200           |

Cooling: indoor temperature t=27°C DB, t=19°C WB, outdoor temperature t=35°C DB, t=24°C WB.  
 Heating: indoor temperature t=20°C DB, t=15°C WB, outdoor temperature t=7°C DB, t=6°C WB.  
 The above data may be changed without notice for future improvement on quality and performance.



OUTDOOR UNITS COMBINATION TABLE

| Cooling capacity |       |            |            |            |            |            |            |                            |
|------------------|-------|------------|------------|------------|------------|------------|------------|----------------------------|
| Model            | kW    | RCOF252FR1 | RCOF280FR1 | RCOF335FR1 | RCOF400FR1 | RCOF450FR1 | RCOF500FR1 | Max. Connected indoor unit |
| RCOF252FR1       | 25,2  | ●          |            |            |            |            |            | 13                         |
| RCOF280FR1       | 28,0  |            | ●          |            |            |            |            | 16                         |
| RCOF335FR1       | 33,5  |            |            | ●          |            |            |            | 20                         |
| RCOF400FR1       | 40,0  |            |            |            | ●          |            |            | 23                         |
| RCOF450FR1       | 45,0  |            |            |            |            | ●          |            | 26                         |
| RCOF500FR1       | 53,2  |            |            |            |            |            | ●          | 29                         |
| RCOF560FR1       | 56,0  |            | ●●         |            |            |            |            | 33                         |
| RCOF615FR1       | 61,5  |            | ●          | ●          |            |            |            | 36                         |
| RCOF680FR1       | 68,0  |            | ●          |            | ●          |            |            | 39                         |
| RCOF730FR1       | 73,0  |            | ●          |            |            | ●          |            | 43                         |
| RCOF785FR1       | 78,5  |            |            | ●          |            | ●          |            | 46                         |
| RCOF850FR1       | 85,0  |            |            |            | ●          | ●          |            | 50                         |
| RCOF900FR1       | 90,0  |            |            |            |            | ●●         |            | 53                         |
| RCOF950FR1       | 95,0  |            |            |            |            | ●          | ●          | 56                         |
| RCOF1000FR1      | 100,0 |            |            |            |            |            | ●●         | 59                         |
| RCOF1065FR1      | 106,5 |            | ●          | ●          |            | ●          |            | 63                         |
| RCOF1130FR1      | 113,0 |            | ●          |            | ●          | ●          |            | 64                         |
| RCOF1180FR1      | 118,0 |            | ●          |            |            | ●●         |            | 64                         |
| RCOF1235FR1      | 123,5 |            |            | ●          |            | ●●         |            | 64                         |
| RCOF1300FR1      | 130,0 |            |            |            | ●          | ●●         |            | 64                         |
| RCOF1350FR1      | 135,0 |            |            |            |            | ●●●        |            | 64                         |
| RCOF1400FR1      | 140,0 |            |            |            |            | ●●         | ●          | 64                         |
| RCOF1450FR1      | 145,0 |            |            |            |            | ●          | ●●         | 64                         |
| RCOF1500FR1      | 150,0 |            |            |            |            |            | ●●●        | 64                         |
| RCOF1560FR1      | 156,0 |            | ●●         |            |            |            | ●●         | 64                         |
| RCOF1630FR1      | 163,0 |            | ●          |            |            | ●●●        |            | 64                         |
| RCOF1685FR1      | 168,5 |            |            | ●          |            | ●●●        |            | 64                         |
| RCOF1750FR1      | 175,0 |            |            |            | ●          | ●●●        |            | 64                         |
| RCOF1800FR1      | 180,0 |            |            |            |            | ●●●●       |            | 64                         |
| RCOF1850FR1      | 185,0 |            |            |            |            | ●●●        | ●          | 64                         |
| RCOF1900FR1      | 190,0 |            |            |            |            | ●●         | ●●         | 64                         |
| RCOF1950FR1      | 195,0 |            |            |            |            | ●          | ●●●        | 64                         |
| RCOF2000FR1      | 200,0 |            |            |            |            |            | ●●●●       | 64                         |

# VRF 3-PIPE SYSTEMS

## BENEFITS FOR USERS:

- ◆ *Livable environment creator*
- ◆ *Excellent in EER and COP*
- ◆ *Outstanding comfort ability*
- ◆ *Wide operating range*
- ◆ *Improvements to reduce noise*
- ◆ *Low noise fan blade*
- ◆ *Silent mode, night time noise control*
- ◆ *Anti-snow function*
- ◆ *All outdoor units cycle operation*
- ◆ *Intelligent defrosting program*
- ◆ *Emergency stop operation function*
- ◆ *Flexible for all kinds of rooms*
- ◆ *Environment friendly*

## BENEFITS FOR INSTALLERS:

- ◆ *4 units combinations*
- ◆ *Adjustable outdoor fan external static pressure*
- ◆ *Automatic addressing*
- ◆ *Addressing methods*
- ◆ *LED display on the PCB*
- ◆ *Service window on the electric control box*
- ◆ *Mode restriction*
- ◆ *Oil control technology*
- ◆ *3-Phase power protector*
- ◆ *Easy for transportation*
- ◆ *Long pipe and height difference*
- ◆ *Use 2-core shielded wire as signal wire*

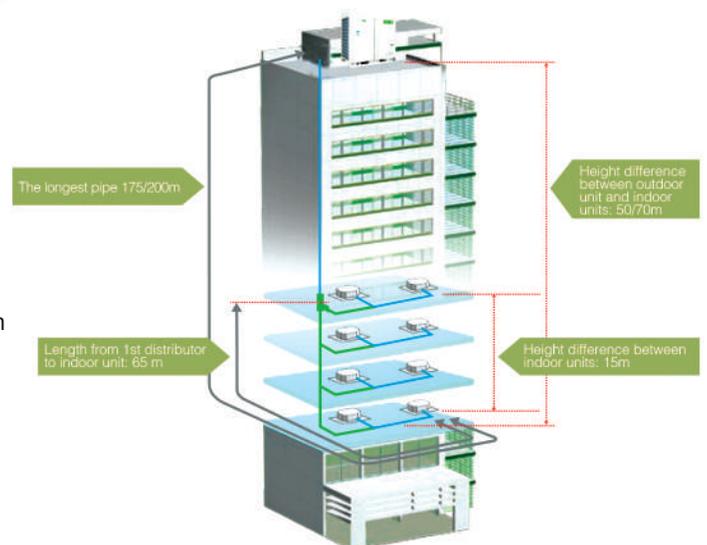
## 7 IMPROVEMENTS TO REDUCE NOISE

Maximum 10dB(A) of operating sound decrease.



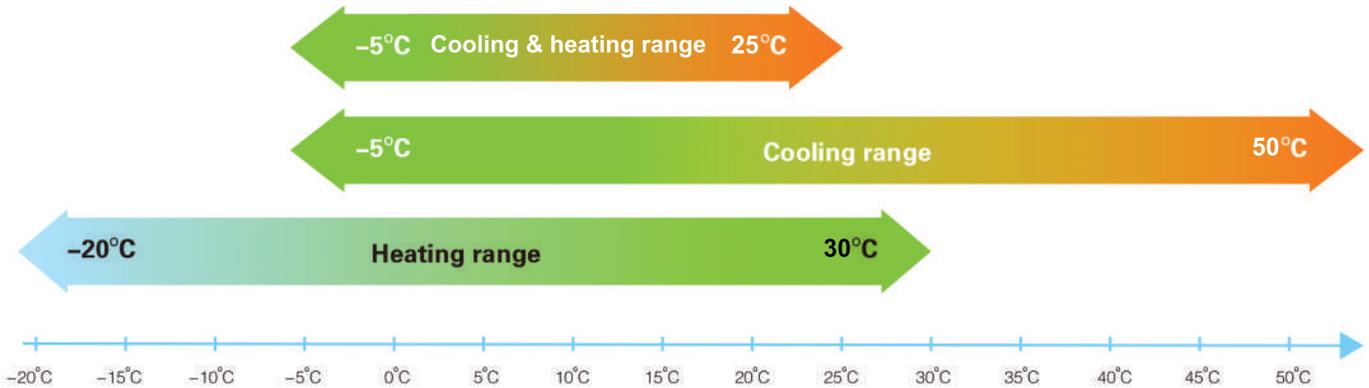
## LONG PIPING & HEIGHT DIFFERENCE

- The total pipe length: 1000m
- The longest pipe :
  - Actual length 175m
  - Equivalent length 200m
- Equivalent length from first indoor distributor to last indoor unit: 65m
- Height difference between indoor and outdoor unit:
  - Outdoor unit above <50m
  - Outdoor unit below <70m
- Height difference between indoor units: 15m



## WIDE OPERATION RANGE

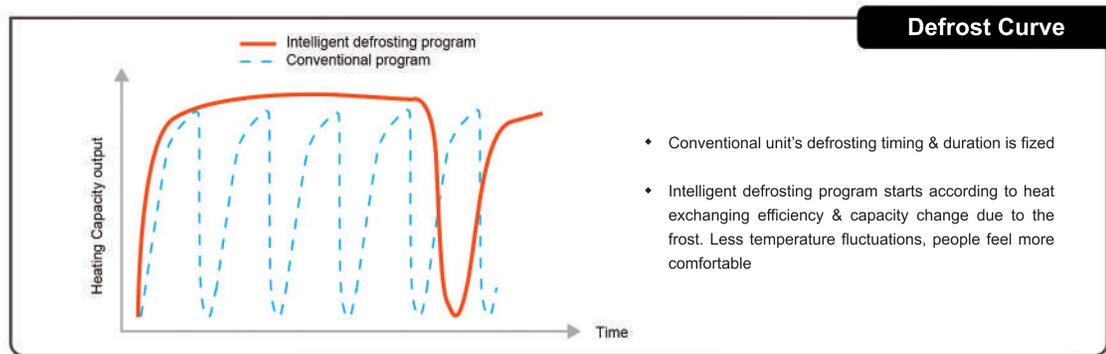
Cooling operating temperature is up to 50°C, suitable for the hot region.  
 Heating operating temperature is down to -20°C. In the cold winter, VRF system can stably produce heat.  
 Cooling and heating at the same time operation range is -5°C to 25°C.



Outdoor unit running at temperature above 50°C need customized in factory, please consult to sales engineer.

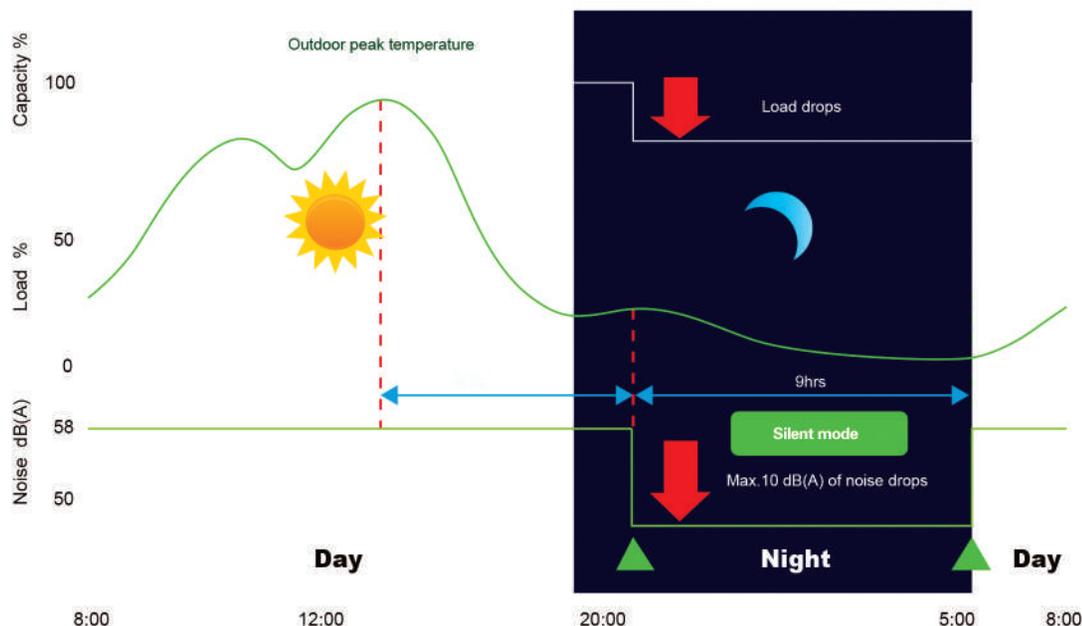
## INTELLIGENT DEFROSTING PROGRAM

Program starts only when unit needs to. Whereas conventional unit's defrosting timing & duration is fixed, causing fluctuations in temperature and personal comfort.



## SILENT MODE, NIGHT TIME NOISE CONTROL

Compressor and fan motor rotating speed can be reduced to lower the noise at night.  
 Maximum 10dB(A) decrease.



### SNOW-PROOF FUNCTION

In the cold weather, outdoor fan will start to run for a while at intervals, for preventing the snow to accumulate on fan blade. Because accumulated snow will freeze and block fan blade rotating, even worse it will damage the motor.

It only start when temperature is lower than 0°C.



### THE PHE ECONOMIZER

PHE Economizer technology provide a additional sub cooling.

Improved heat exchanger + PHE economizer + Optimized control logic

Heating performance highly increased



The PHE economizer need customization.

### 3-STAGE BACK UP FUNCTION

- > Module back up function.
- > When some modules are failure, the others can keep running by simply settings.



- > Compressor back up function
- > When one compressor is failure, the other one can keep running by simply settings.



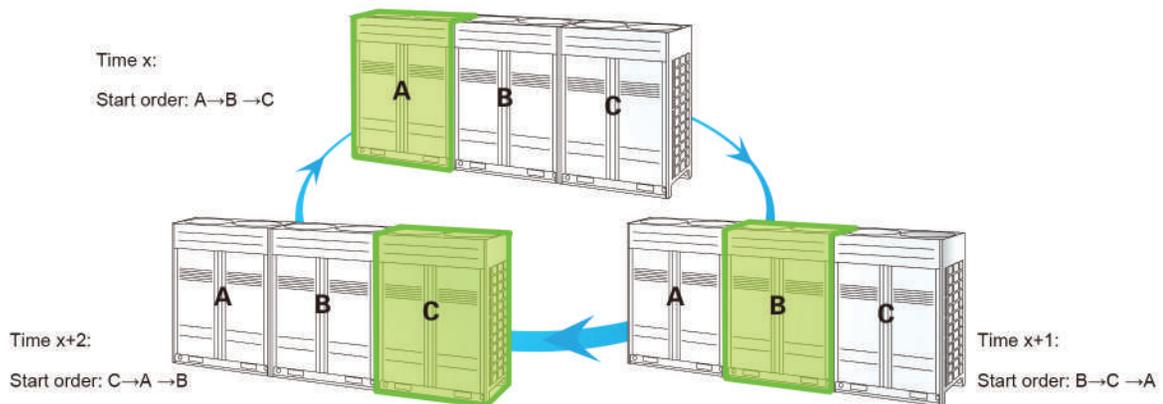
- > Fan motor back up function.
- > When one fan motor is failure, the other one can keep running by simply settings.



### ALL OUTDOORS UNITS CYCLE OPERATION

In one combination system, any outdoor unit can run as master unit.

Balance the lifespan among outdoor units in one system.



## DC INVERTER 3-PIPE SERIES



### BENEFITS:

- ◆ Long pipe and height difference
- ◆ High efficiency DC inverter compressor
- ◆ High efficiency DC motor
- ◆ Stepless control
- ◆ Supercooling flow path design
- ◆ Cross flow fins
- ◆ Cooling and heating at the same time

| Model                                |   |      | RCO3F252FR1        | RCO3F280FR1   | RCO3F335FR1   | RCO3F400FR1   | RCO3F450FR1   |
|--------------------------------------|---|------|--------------------|---------------|---------------|---------------|---------------|
| Capacity                             | Cooling                                 | kW   | 25,2               | 28,0          | 33,5          | 40,0          | 45,0          |
|                                      | Heating                                 |      | 27,4               | 31,5          | 37,5          | 45,0          | 50,0          |
| EER / COP                            | W                                       |      | 4,42 / 4,66        | 4,04 / 4,38   | 3,95 / 4,26   | 3,78 / 4,10   | 3,54 / 4,02   |
| Power supply                         | F, V, Hz                                |      | 3F, 380~415V, 50Hz |               |               |               |               |
| Power input                          | Cooling                                 | kW   | 5,70               | 6,93          | 8,48          | 10,58         | 12,71         |
|                                      | Heating                                 |      | 5,88               | 7,19          | 8,80          | 10,98         | 12,44         |
| Refrigerant charge volume            | kg                                      |      | 12,00              | 12,00         | 12,00         | 16,00         | 16,00         |
| Compressor                           | Type                                    |      | Scroll             |               |               |               |               |
|                                      | Quantity                                | unit | 1                  | 1             | 1             | 2             | 2             |
| Outline dimension                    | WxHxD                                   | mm   | 1260x1620x765      | 1260x1620x765 | 1260x1620x765 | 1260x1620x765 | 1260x1620x765 |
| Package dimension                    | WxHxD                                   | mm   | 1315x1750x825      | 1315x1750x825 | 1315x1750x825 | 1315x1750x825 | 1315x1750x825 |
| Weight                               | Net / Gross                             | kg   | 270 / 279          | 270 / 279     | 270 / 279     | 310 / 319     | 310 / 319     |
| Sound pressure level                 | dB                                      |      | 58                 | 58            | 60            | 60            | 60            |
| Operating temperature                | Cooling                                 | °C   | -5~+50             | -5~+50        | -5~+50        | -5~+50        | -5~+50        |
|                                      | Heating                                 |      | -20~+30            | -20~+30       | -20~+30       | -20~+30       | -20~+30       |
|                                      | Cooling/<br>Heating at the<br>same time |      | -5~+25             | -5~+25        | -5~+25        | -5~+25        | -5~+25        |
| Piping connection                    | LP Gas                                  | mm   | 22,2               | 25,4          | 25,4          | 28,6          | 28,6          |
|                                      | HP Gas                                  |      | 19,05              | 19,05         | 19,05         | 22,2          | 22,2          |
|                                      | Liquid                                  |      | 12,7               | 12,7          | 12,7          | 15,9          | 15,9          |
| Maximum indoor unit                  | Quantity                                | unit | 13                 | 16            | 20            | 23            | 26            |
| Maximum total length of fitting pipe |   | m    | 200                | 200           | 200           | 200           | 200           |

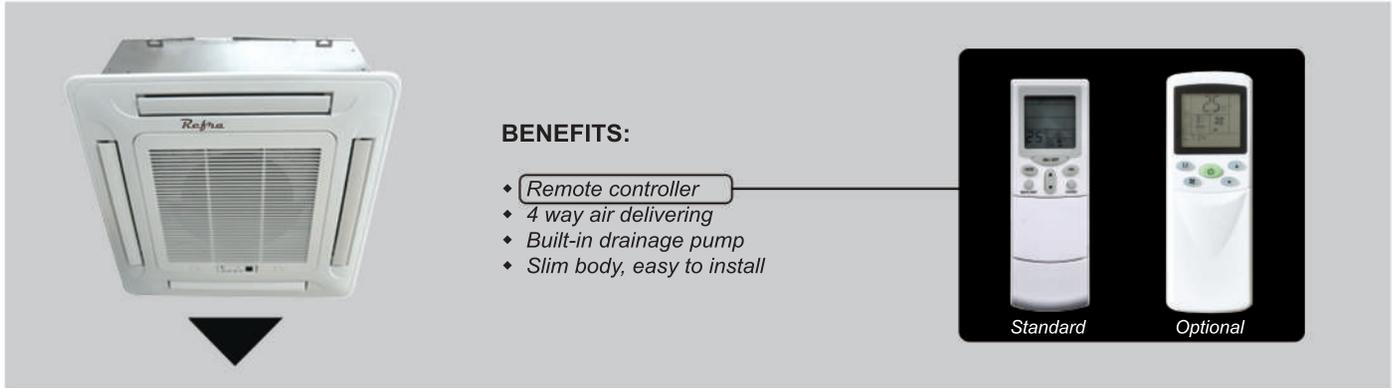
Cooling: indoor temperature t=27°C DB, t=19°C WB, outdoor temperature t=35°C DB, t=24°C WB.

Heating: indoor temperature t=20°C DB, t=15°C WB, outdoor temperature t=7°C DB, t=6°C WB.

The above data may be changed without notice for future improvement on quality and performance.

## OUTDOOR UNITS COMBINATION TABLE

| Cooling capacity |       |             |             |             |             |             |                            |
|------------------|-------|-------------|-------------|-------------|-------------|-------------|----------------------------|
| Model            | kW    | RCO3F252FR1 | RCO3F280FR1 | RCO3F335FR1 | RCO3F400FR1 | RCO3F450FR1 | Max. Connected indoor unit |
| RCO3F252FR1      | 25,2  | ●           |             |             |             |             | 13                         |
| RCO3F280FR1      | 28,0  |             | ●           |             |             |             | 16                         |
| RCO3F335FR1      | 33,5  |             |             | ●           |             |             | 20                         |
| RCO3F400FR1      | 40,0  |             |             |             | ●           |             | 23                         |
| RCO3F450FR1      | 45,0  |             |             |             |             | ●           | 26                         |
| RCO3F532FR1      | 53,2  | ●           | ●           |             |             |             | 29                         |
| RCO3F560FR1      | 56,0  |             | ●●          |             |             |             | 33                         |
| RCO3F615FR1      | 61,5  |             | ●           | ●           |             |             | 36                         |
| RCO3F680FR1      | 68,0  |             | ●           |             | ●           |             | 39                         |
| RCO3F730FR1      | 73,0  |             | ●           |             |             | ●           | 43                         |
| RCO3F800FR1      | 80,0  |             |             |             | ●●          |             | 46                         |
| RCO3F850FR1      | 85,0  |             |             |             | ●           | ●           | 50                         |
| RCO3F900FR1      | 90,0  |             |             |             |             | ●●          | 53                         |
| RCO3F960FR1      | 96,0  |             | ●●          |             | ●           |             | 56                         |
| RCO3F1010FR1     | 101,0 |             | ●●          |             |             | ●           | 59                         |
| RCO3F1065FR1     | 106,5 |             | ●           | ●           |             | ●           | 63                         |
| RCO3F1130FR1     | 113,0 |             | ●           |             | ●           | ●           | 64                         |
| RCO3F1200FR1     | 120,0 |             |             |             | ●●●         |             | 64                         |
| RCO3F1235FR1     | 125,0 |             |             |             | ●●          | ●           | 64                         |
| RCO3F1300FR1     | 130,0 |             |             |             | ●           | ●●          | 64                         |
| RCO3F1350FR1     | 135,0 |             |             |             |             | ●●●         | 64                         |
| RCO3F1432FR1     | 143,2 | ●           | ●           |             |             | ●●          | 64                         |
| RCO3F1460FR1     | 146,0 |             | ●●          |             |             | ●●          | 64                         |
| RCO3F1515FR1     | 151,5 |             | ●           | ●           |             | ●●          | 64                         |
| RCO3F1580FR1     | 158,0 |             | ●           |             | ●           | ●●          | 64                         |
| RCO3F1650FR1     | 165,0 |             |             |             | ●●●         | ●           | 64                         |
| RCO3F1700FR1     | 170,0 |             |             |             | ●●          | ●●          | 64                         |
| RCO3F1750FR1     | 175,0 |             |             |             | ●           | ●●●         | 64                         |
| RCO3F1800FR1     | 180,0 |             |             |             |             | ●●●●        | 64                         |



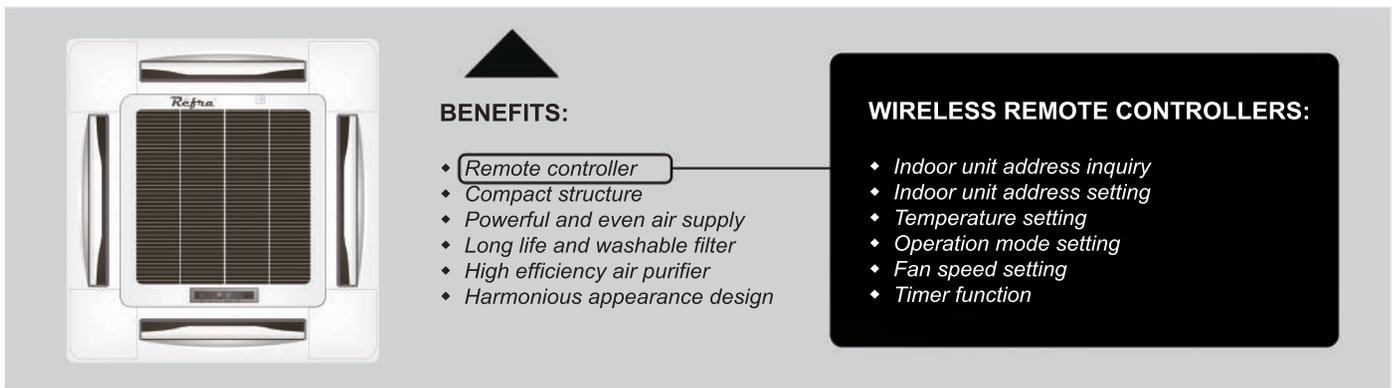
**BENEFITS:**

- ◆ Remote controller
- ◆ 4 way air delivering
- ◆ Built-in drainage pump
- ◆ Slim body, easy to install



**FOUR-WAY CASSETTE TYPE INDOOR UNIT**

| Model (COMPACT CASSETTE TYPE) |                   |                   | RCKF022CAR1     | RCKF028CAR1     | RCKF036CAR1     | RCKF045CAR1     |               |
|-------------------------------|-------------------|-------------------|-----------------|-----------------|-----------------|-----------------|---------------|
| Capacity                      | Cooling           | kW                | 2,2             | 2,8             | 3,6             | 4,5             |               |
|                               | Heating           |                   | 2,5             | 3,2             | 4,0             | 5,0             |               |
| Motor input                   |                   | kW                | 0,038           | 0,038           | 0,04            | 0,04            |               |
| Air flow                      |                   | m <sup>3</sup> /h | 450             | 450             | 520             | 520             |               |
| Sound pressure level          |                   | dB                | 22~34           | 22~34           | 27~38           | 27~38           |               |
| Main body                     | Outline dimension | WxHxD             | 653 x 267 x 585 |               |
|                               | Packing dimension | WxHxD             | 745 x 375 x 675 |               |
| Panel                         | Outline dimension | WxHxD             | 650 x 30 x 650  |               |
|                               | Packing dimension | WxHxD             | 750 x 95 x 750  |               |
| Body weight                   | Net / Gross       | kg                | 17,5 / 23,0     | 17,5 / 23,0     | 17,5 / 23,0     | 17,5 / 23,0     |               |
| Connecting pipe               | Gas / Liquid      | mm                | 9,52 / 6,35     | 9,52 / 6,35     | 12,7 / 6,35     | 12,7 / 6,35     |               |
| Model                         |                   |                   | RCKF056BAR1     | RCKF071BAR1     | RCKF080BAR1     | RCKF090BAR1     |               |
| Capacity                      | Cooling           | kW                | 5,6             | 7,1             | 8,0             | 9,0             |               |
|                               | Heating           |                   | 6,3             | 8,0             | 8,8             | 10,0            |               |
| Motor input                   |                   | kW                | 0,054           | 0,093           | 0,093           | 0,16            |               |
| Air flow                      |                   | m <sup>3</sup> /h | 810             | 1200            | 1200            | 1600            |               |
| Sound pressure level          |                   | dB                | 35~39           | 36~39           | 36~39           | 37~41           |               |
| Main body                     | Outline dimension | WxHxD             | 833×232×900     | 833×232×900     | 833×232×900     | 833×286×900     |               |
|                               | Packing dimension | WxHxD             | 920×265×985     | 920×265×985     | 920×265×985     | 920×310×985     |               |
| Panel                         | Outline dimension | WxHxD             | 950×50×950      | 950×50×950      | 950×50×950      | 950×50×950      |               |
|                               | Packing dimension | WxHxD             | 1030×105×1030   | 1030×105×1030   | 1030×105×1030   | 1030×105×1030   |               |
| Body weight                   | Net / Gross       | kg                | 24 / 30         | 24 / 30         | 24 / 30         | 28,5 / 35       |               |
| Connecting pipe               | Gas / Liquid      | mm                | 12,7 / 6,35     | 15,9 / 9,52     | 15,9 / 9,52     | 15,9 / 9,52     |               |
| Model                         |                   |                   | RCKF0100BAR1    | RCKF0112BAR1    | RCKF125BAR1     | RCKF140BAR1     | RCKF160BAR1   |
| Capacity                      | Cooling           | kW                | 10,0            | 11,2            | 12,5            | 14,0            | 16,0          |
|                               | Heating           |                   | 11,0            | 12,5            | 14,0            | 15,0            | 17,0          |
| Motor input                   |                   | kW                | 0,16            | 0,16            | 0,16            | 0,16            |               |
| Air flow                      |                   | m <sup>3</sup> /h | 1600            | 1600            | 1600            | 1600            |               |
| Sound pressure level          |                   | dB                | 37~41           | 37~41           | 37~41           | 37~41           |               |
| Main body                     | Outline dimension | WxHxD             | 833×286×900     | 833×286×900     | 833×286×900     | 833×286×900     | 833×286×900   |
|                               | Packing dimension | WxHxD             | 920×310×985     | 920×310×985     | 920×310×985     | 920×310×985     | 920×310×985   |
| Panel                         | Outline dimension | WxHxD             | 950×50×950      | 950×50×950      | 950×50×950      | 950×50×950      | 950×50×950    |
|                               | Packing dimension | WxHxD             | 1030×105×1030   | 1030×105×1030   | 1030×105×1030   | 1030×105×1030   | 1030×105×1030 |
| Body weight                   | Net / Gross       | kg                | 28,5 / 35       | 28,5 / 35       | 28,5 / 35       | 28,5 / 35       |               |
| Connecting pipe               | Gas / Liquid      | mm                | 15,9 / 9,52     | 15,9 / 9,52     | 15,9 / 9,52     | 15,9 / 9,52     |               |



**BENEFITS:**

- ◆ Remote controller
- ◆ Compact structure
- ◆ Powerful and even air supply
- ◆ Long life and washable filter
- ◆ High efficiency air purifier
- ◆ Harmonious appearance design

**WIRELESS REMOTE CONTROLLERS:**

- ◆ Indoor unit address inquiry
- ◆ Indoor unit address setting
- ◆ Temperature setting
- ◆ Operation mode setting
- ◆ Fan speed setting
- ◆ Timer function

## 2-WAY CASSETTE TYPE INDOOR UNIT

| Model                |                   |       | RCXF045AR1   | RCXF056AR1   | RCXF071AR1   |
|----------------------|-------------------|-------|--------------|--------------|--------------|
| Capacity             | Cooling           | kW    | 4,5          | 5,6          | 7,1          |
|                      | Heating           |       | 5,0          | 6,3          | 8,0          |
| Motor input          |                   | kW    | 0,07         | 0,07         | 0,10         |
| Air flow             |                   | m³/h  | 800          | 800          | 1120         |
| Sound pressure level |                   | dB    | 36~42        | 36~42        | 40~46        |
| Main body            | Outline dimension | WxHxD | 1068×310×517 | 1068×310×517 | 1308×310×517 |
|                      | Packing dimension | WxHxD | 1215×365×630 | 1215×365×630 | 1455×365×630 |
| Panel                | Outline dimension | WxHxD | 1205×50×630  | 1205×50×630  | 1445×50×630  |
|                      | Packing dimension | WxHxD | 1235×70×655  | 1235×70×655  | 1475×70×655  |
| Body weight          | Net / Gross       | kg    | 33 / 39,5    | 33 / 39,5    | 40 / 47      |
| Connecting pipe      | Gas / Liquid      | mm    | 12,7 / 6,35  | 12,7 / 6,35  | 15,88 / 9,53 |



### BENEFITS:

- ◆ Remote controller with LCD
- ◆ 2 way air direction
- ◆ Super high air flow
- ◆ Built-in with drainage pump



### BENEFITS:

- ◆ Remote controller with LCD
- ◆ Slim body, easy to install
- ◆ Built-in with drainage pump
- ◆ Fresh air, improved air quality

## 1-WAY CASSETTE TYPE INDOOR UNIT

| Model                |                   |       | RCZF022AR1   | RCZF028AR1   | RCZF036AR1   |
|----------------------|-------------------|-------|--------------|--------------|--------------|
| Capacity             | Cooling           | kW    | 2,2          | 2,8          | 3,6          |
|                      | Heating           |       | 2,5          | 3,2          | 4,0          |
| Motor input          |                   | kW    | 0,04         | 0,04         | 0,04         |
| Air flow             |                   | m³/h  | 520          | 520          | 520          |
| Sound pressure level |                   | dB    | 32~36        | 32~36        | 32~36        |
| Main body            | Outline dimension | WxHxD | 994×250×532  | 994×250×532  | 994×250×532  |
|                      | Packing dimension | WxHxD | 1160×275×655 | 1160×275×655 | 1160×275×655 |
| Panel                | Outline dimension | WxHxD | 1070×50×520  | 1070×50×520  | 1070×50×520  |
|                      | Packing dimension | WxHxD | 1090×65×540  | 1090×65×540  | 1090×65×540  |
| Body weight          | Net / Gross       | kg    | 24 / 30      | 24 / 30      | 24 / 30      |
| Connecting pipe      | Gas / Liquid      | mm    | 9,52 / 6,35  | 9,52 / 6,35  | 9,52 / 6,35  |



### BENEFITS:

- ◆ Remote controller
- ◆ Built-in EXV
- ◆ Suspended installation, saves valuable floor space
- ◆ Wide angle air supply
- ◆ Easy for installation

## FLOOR CEILING UNIT

| Model                |              |      | RCCF045AR1       | RCCF056AR1       | RGCC056AR1       | RGCC080AR1       |
|----------------------|--------------|------|------------------|------------------|------------------|------------------|
| Capacity             | Cooling      | kW   | 4,5              | 5,6              | 7,1              | 8,0              |
|                      | Heating      |      | 5,0              | 6,3              | 8,0              | 8,8              |
| Power input          |              | kW   | 0,06             | 0,06             | 0,15             | 0,15             |
| Air flow volume      |              | m³/h | 950              | 950              | 1300             | 1300             |
| Sound pressure level |              | dB   | 46 / 37          | 46 / 37          | 48 / 39          | 48 / 39          |
| Outline dimension    | WxHxD        | mm   | 1245 x 680 x 240 |
| Packing dimension    | WxHxD        | mm   | 1325 x 770 x 330 |
| Weight               | Net / Gross  | kg   | 37~46            | 37~46            | 39~48            | 39~48            |
| Connecting pipe      | Gas / Liquid | mm   | 12,7 / 6,35      | 12,7 / 6,35      | 15,9 / 9,52      | 15,88 / 9,52     |
| Model                |              |      | RCCF090AR1       | RCCF112AR1       | RCCF140AR1       | RCCF160AR1       |
| Capacity             | Cooling      | kW   | 9,0              | 11,2             | 14,0             | 16,0             |
|                      | Heating      |      | 10,0             | 12,5             | 15,0             | 17,0             |
| Power input          |              | kW   | 0,375            | 0,26             | 0,26             | 0,26             |
| Air flow volume      |              | m³/h | 1500             | 2300             | 2300             | 2300             |
| Sound pressure level |              | dB   | 44~50            | 45~52            | 45~52            | 37~46            |
| Outline dimension    | WxHxD        | mm   | 1245 x 680 x 240 | 1670 x 680 x 240 | 1670 x 680 x 240 | 1670 x 680 x 240 |
| Packing dimension    | WxHxD        | mm   | 1325 x 770 x 330 | 1750 x 770 x 330 | 1750 x 770 x 330 | 1750 x 770 x 330 |
| Weight               | Net / Gross  | kg   | 38 / 44          | 51 / 58          | 51 / 58          | 51 / 58          |
| Connecting pipe      | Gas / Liquid | mm   | 15,9 / 9,52      | 15,9 / 9,52      | 15,9 / 9,52      | 15,9 / 9,52      |



**BENEFITS:**

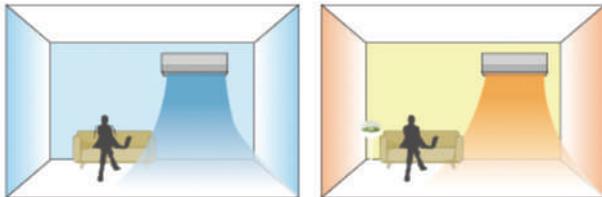
- ◆ Remote controller with LCD
- ◆ Trinal air filter
- ◆ Quiet operation
- ◆ Aero appearance
- ◆ Wide air supply angle
- ◆ Easily dismantlable front panel

**WALL MOUNTED UNIT, EXV INTEGRATED**

| Model                |            |      | RCSF022AR1  | RCSF028AR1  | RCSF036AR1  | RCSF045AR1  | RCSF056AR1   | RCSF071AR1   |
|----------------------|------------|------|-------------|-------------|-------------|-------------|--------------|--------------|
| Capacity             | Cooling    | kW   | 2,2         | 2,8         | 3,6         | 4,5         | 5,6          | 7,1          |
|                      | Heating    |      | 2,5         | 3,2         | 4,0         | 5,0         | 6,2          | 7,8          |
| Motor input          |            | kW   | 0,033       | 0,033       | 0,041       | 0,041       | 0,052        | 0,052        |
| Air flow             |            | m³/h | 540         | 540         | 600         | 600         | 920          | 920          |
| Sound pressure level |            | dB   | 24~33       | 24~33       | 24~33       | 33~40       | 35~43        | 35~43        |
| Outline dimension    | WxHxD      | mm   | 900×296×216 | 900×296×216 | 900×296×216 | 900×296×216 | 1080×304×221 | 1080×304×221 |
| Packing dimension    | WxHxD      | mm   | 983×377×300 | 983×377×300 | 983×377×300 | 983×377×300 | 1145×392×318 | 1145×392×318 |
| Weight               | Net/Gross  |      | 12,0 / 14,0 | 12,0 / 14,0 | 12,0 / 14,0 | 12,0 / 14,0 | 16,0 / 18,0  | 16,0 / 18,0  |
| Connecting pipe      | Gas/Liquid | mm   | 9,52 / 6,35 | 9,52 / 6,35 | 12,7 / 6,35 | 12,7 / 6,35 | 12,7 / 6,35  | 15,9 / 9,52  |

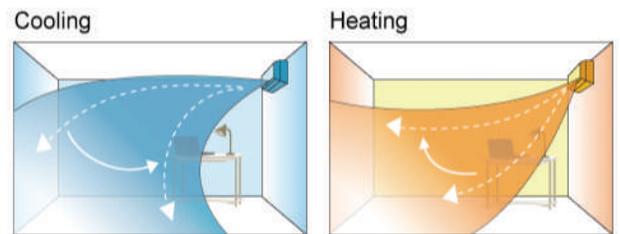
**ANTI COOL AIR DESIGN**

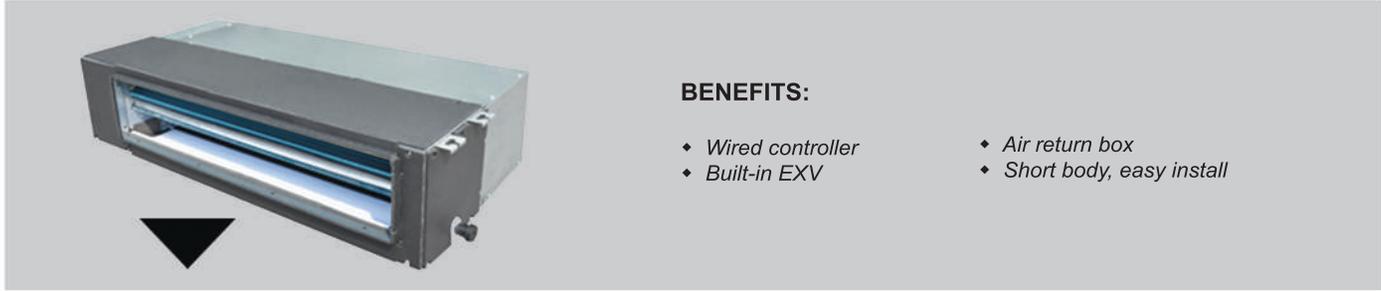
When heating in winter, intelligent anti cool air function is started. Unit only blows when inside the unit is pre-heated to prevent cool air from blowing out.



**VERTICAL AUTO SWING**

When cooling, cool air is directed across the room and the sinks. When heating, warm air is directed across the floor and then rises.





**BENEFITS:**

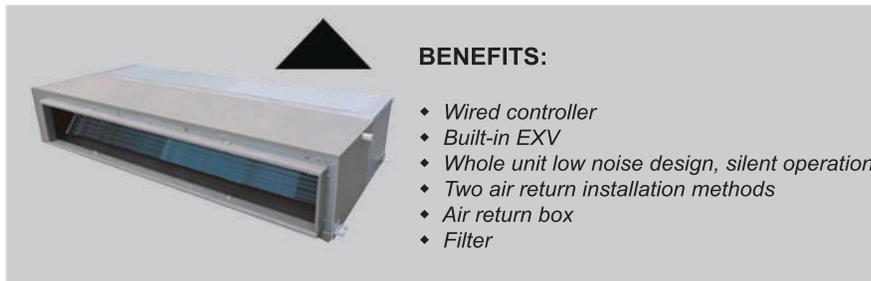
- ◆ Wired controller
- ◆ Built-in EXV
- ◆ Air return box
- ◆ Short body, easy install

**DUCT TYPE WITH LOW ESP, 30 PA, SHORT CEILING**

| Model                | RCDLF022AR1  |                   | RCDLF028AR1     | RCDLF036AR1     | RCDLF045AR1     | RCDLF056AR1     | RCDLF071AR1      |                  |
|----------------------|--------------|-------------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|
| Capacity             | Cooling      | kW                | 2,2             | 2,8             | 3,6             | 4,5             | 5,6              | 7,1              |
|                      | Heating      |                   | 2,5             | 3,2             | 4,0             | 5,0             | 6,3              | 8,0              |
| Motor input          |              | kW                | 0,05            | 0,05            | 0,07            | 0,08            | 0,10             | 0,11             |
| Air flow volume      |              | m <sup>3</sup> /h | 450             | 450             | 550             | 620             | 800              | 1000             |
| Sound pressure level |              | dB                | 24~29           | 24~29           | 25~32           | 32~37           | 28~38            | 30~39            |
| ESP                  | M / H        | Pa                | 30              | 30              | 30              | 30              | 30               | 30               |
| Outline dimension    | W x H x D    | mm                | 814 x 210 x 467 | 1010 x 210 x 467 | 1214 x 210 x 467 |
| Packing dimension    | W x H x D    | mm                | 910 x 240 x 510 | 1110 x 240 x 510 | 1310 x 240 x 510 |
| Weight               | Net / Gross  | kg                | 16 / 18,5       | 16 / 18,5       | 16,5 / 19       | 16,5 / 19       | 21 / 24          | 25,5 / 28,5      |
| Connecting pipe      | Gas / Liquid | mm                | 9,52 / 6,35     | 9,52 / 6,35     | 12,7 / 6,35     | 12,7 / 6,35     | 12,7 / 6,35      | 15,9 / 9,53      |

**DUCT TYPE WITH MEDIUM ESP, 70 PA**

| Model                | RCDMF071AR1  |                   | RCDMF080AR1      | RCDMF090AR1      | RCDMF100AR1      | RCDMF120AR1      | RCDMF150AR1      |                  |
|----------------------|--------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Capacity             | Cooling      | kW                | 7,1              | 8,0              | 9,0              | 10,0             | 12,0             | 15,0             |
|                      | Heating      |                   | 8,0              | 9,0              | 10,0             | 11,0             | 13,0             | 17,0             |
| Motor input          |              | kW                | 0,30             | 0,30             | 0,34             | 0,34             | 0,34             | 0,34             |
| Air flow volume      |              | m <sup>3</sup> /h | 1220             | 1220             | 1850             | 2000             | 2000             | 2000             |
| Sound pressure level |              | dB                | 36~41            | 36~41            | 38~43            | 40~44            | 40~44            | 40~44            |
| ESP                  | M / H        | Pa                | 70               | 70               | 70               | 70               | 70               | 70               |
| Outline dimension    | W x H x D    | mm                | 1209 x 260 x 680 | 1209 x 260 x 680 | 1445 x 260 x 680 |
| Packing dimension    | W x H x D    | mm                | 1255 x 325 x 720 | 1255 x 325 x 720 | 1490 x 325 x 720 |
| Weight               | Net / Gross  | kg                | 33 / 37          | 33 / 37          | 46 / 50          | 46 / 50          | 46 / 50          | 46 / 50          |
| Connecting pipe      | Gas / Liquid | mm                | 15,9 / 9,52      | 15,9 / 9,52      | 15,9 / 9,52      | 15,9 / 9,52      | 15,9 / 9,52      | 15,9 / 9,52      |



**BENEFITS:**

- ◆ Wired controller
- ◆ Built-in EXV
- ◆ Whole unit low noise design, silent operation
- ◆ Two air return installation methods
- ◆ Air return box
- ◆ Filter



**BENEFITS:**

- ◆ Wired controller
- ◆ Built-in EXV
- ◆ Slim body, saving suspended ceiling spaces
- ◆ Can be used with various diffusers
- ◆ High static pressure
- ◆ Air return box
- ◆ Filter

**DUCT TYPE WITH HIGH ESP, 150 PA**

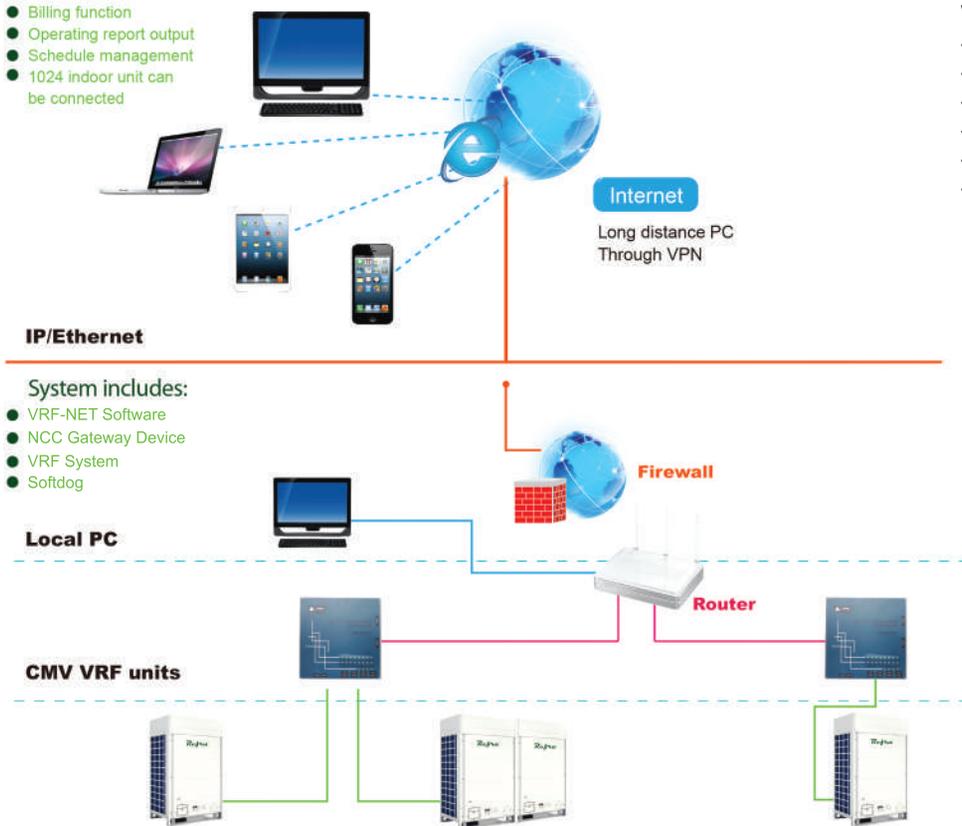
| Model                | RCDHF071AR1  |                   | RCDHF080AR1      | RCDHF090AR1      |                  |
|----------------------|--------------|-------------------|------------------|------------------|------------------|
| Capacity             | Cooling      | kW                | 7,1              | 8,0              | 9,0              |
|                      | Heating      |                   | 7,8              | 8,8              | 10,0             |
| Motor input          |              | kW                | 0,34             | 0,34             | 0,34             |
| Air flow volume      |              | m <sup>3</sup> /h | 1500             | 1500             | 1500             |
| Sound pressure level |              | dB                | 40~42            | 40~42            | 40~42            |
| ESP                  | M / H        | Pa                | 150              | 150              | 150              |
| Outline dimension    | W x H x D    | mm                | 1445 x 260 x 680 | 1445 x 260 x 680 | 1445 x 260 x 680 |
| Packing dimension    | W x H x D    | mm                | 1490 x 325 x 720 | 1490 x 325 x 720 | 1490 x 325 x 720 |
| Weight               | Net / Gross  | kg                | 46 / 50          | 46 / 50          | 46 / 50          |
| Connecting pipe      | Gas / Liquid | mm                | 15,9 / 9,52      | 15,9 / 9,52      | 15,9 / 9,52      |



| Model                | RCDHF100AR1  |                   | RCDHF120AR1      | RCDHF150AR1      | RCDHF200AR1      | RCDHF250AR1      | RCDHF280AR1      |                  |
|----------------------|--------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Capacity             | Cooling      | kW                | 10,0             | 12,0             | 15,0             | 20,0             | 25,0             | 28,0             |
|                      | Heating      |                   | 11,0             | 13,0             | 17,0             | 22,0             | 27,5             | 30,8             |
| Motor input          |              | kW                | 0,45             | 0,45             | 0,45             | 1,20             | 1,20             | 1,20             |
| Air flow volume      |              | m <sup>3</sup> /h | 2300             | 2300             | 2300             | 4000             | 4200             | 4400             |
| Sound pressure level |              | dB                | 44~52            | 44~52            | 44~52            | 45~53            | 45~54            | 45~55            |
| ESP                  | M / H        | Pa                | 150              | 150              | 150              | 150              | 150              | 150              |
| Outline dimension    | W x H x D    | mm                | 1190 x 370 x 620 | 1190 x 370 x 620 | 1190 x 370 x 620 | 1465 x 448 x 811 | 1465 x 448 x 811 | 1465 x 448 x 811 |
| Packing dimension    | W x H x D    | mm                | 1245 x 445 x 655 | 1245 x 445 x 655 | 1245 x 445 x 655 | 1510 x 580 x 870 | 1510 x 580 x 870 | 1510 x 580 x 870 |
| Weight               | Net / Gross  | kg                | 47 / 51          | 47 / 51          | 47 / 51          | 102 / 113        | 102 / 113        | 102 / 113        |
| Connecting pipe      | Gas / Liquid | mm                | 15,9 / 9,52      | 15,9 / 9,52      | 15,9 / 9,52      | 22,2 / 12,7      | 22,2 / 12,7      | 22,2 / 12,7      |

## VRF-NET CONTROL SOFTWARE

- Billing function
- Operating report output
- Schedule management
- 1024 indoor unit can be connected



## WIRELESS REMOTE CONTROLLERS

- Wireless remote controllers
- Indoor unit address inquiry
  - Indoor unit address setting
  - Temperature setting
  - Operation mode setting
  - Fan speed setting
  - Timer function



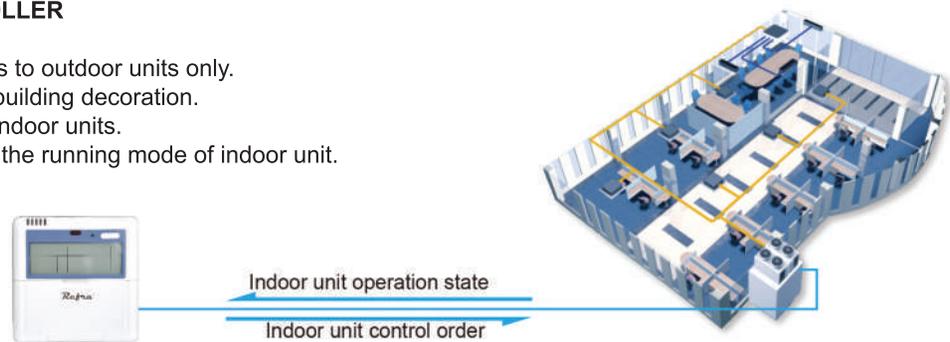
## WIRED CONTROLLERS

- Bidirectional communication. Indoor unit's operating parameters (error code, temperature, address) can be inquired and displayed on the controller.
- Compact design
- Timer function



## SIMPLE CENTRALIZED CONTROLLER

- Easy to install. Controller connects to outdoor units only.
- Able to install this controller after building decoration.
- 1 Controller can control max. 64 indoor units.
- Mode lock function, user can lock the running mode of indoor unit.



## VRF-SMART (SMART CENTRALIZED CONTROL APP)

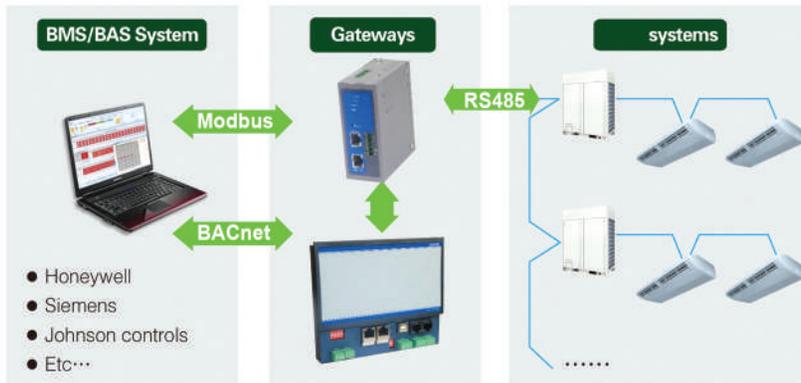
- Available on iOS and Android
- Single unit controller or group control
- Weekly schedule management
- 64 indoor unit can be controlled
- Operation parameter enquiry



**VRF**  
SYSTEMS

## BMS GATEWAY

- BACnet gateway  
Verified by BACnet International, fully compatible with all BACnet protocol product
- Modbus gateway  
Outdoor unit built in with Modbus gateway can be customized



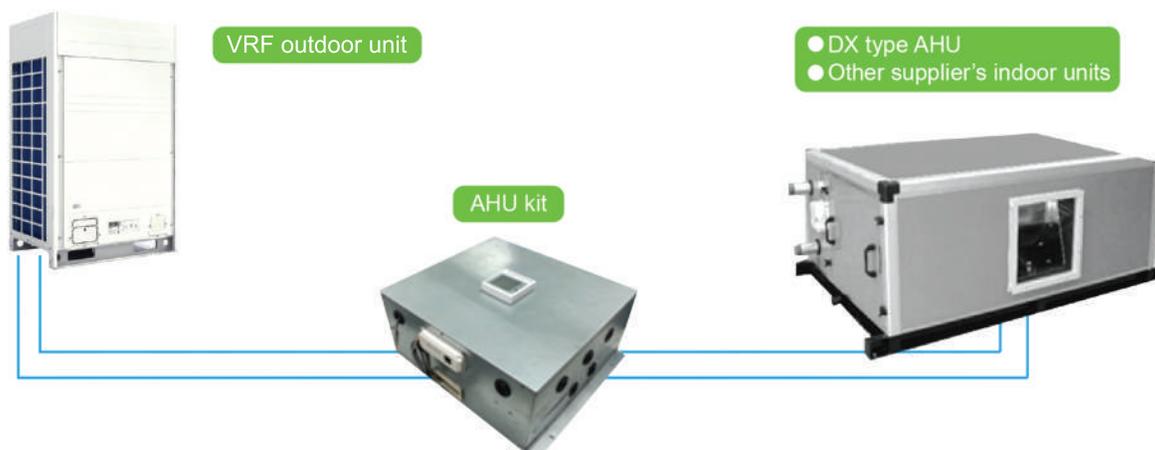
## DOCTOR KIT PRO

- Operating status, error codes inquiry.
- Compressors, sensors, valves operating parameter. real-time monitored and display.
- Commissioning results can be reported.
- Built-in with troubleshooting instruction.
- Automatic Data Backup



## AHU CONNECTION KIT

- Refra AHU connection kit is an interface to allow 3rd party manufacturer's AHU connecting to Refra VRF outdoor units.
- 2 basic modules: 5HP/10HP
- Can be combined into bigger capacity.



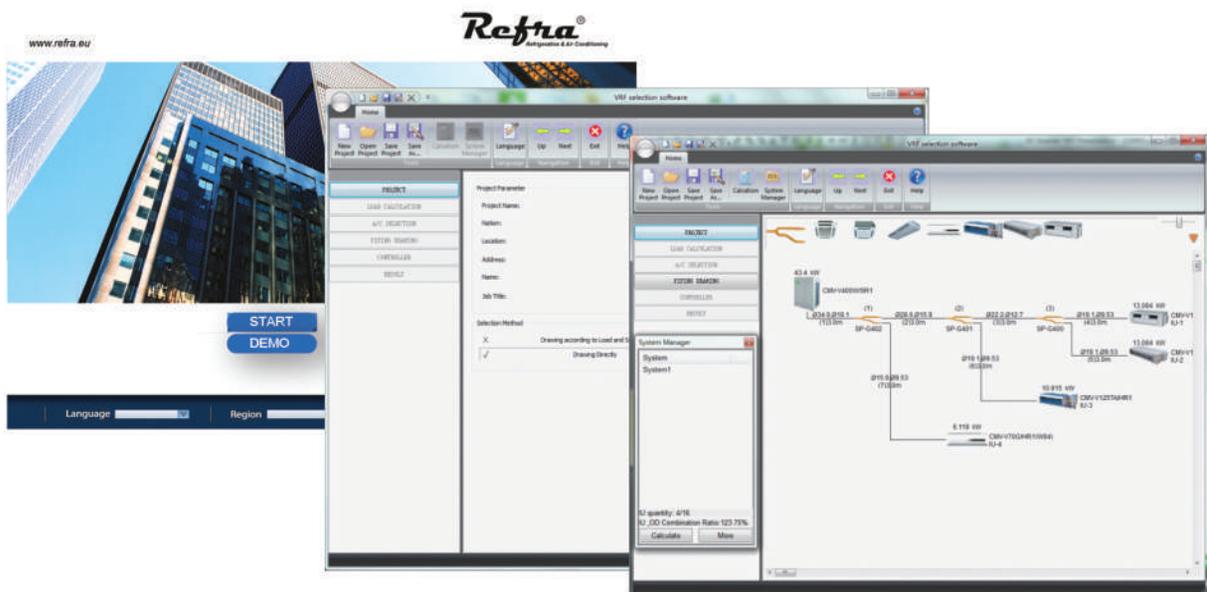
# TOUCH SCREEN CENTRALIZED CONTROLLER

- > Build in WIFI modular
- > Build in Modbus protocol
- > Weekly schedule management
- > Operation parameter enquiry
- > Userfriendly UI design



# VRF SELECTION SOFTWARE

VRF Selection software is specially developed for designers. Available in english or russian languages.





**UAB "REFRA"**  
Darius ir Gireno str. 179  
Vilnius, LT-02189, Lithuania

info@refra.eu  
www.refra.eu

+370 5 2031020  
+370 5 2031021  
+370 5 2031023



ONLINE CATALOGUE

