



# V8VRF

## Controller Catalogue

# SMART IN ONE

Midea Building Technologies Division  
Midea Group

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Midea reserves the right to change the specifications of the product, and to withdraw or replace products without prior notification or public announcement. Midea is constantly developing and improving its products.  
GD MIDEA Heating & Ventilating Equipment Co. Ltd participates in the ECP programme for VRF. Check ongoing validity of certificate: WWW. eurovent-certification.com



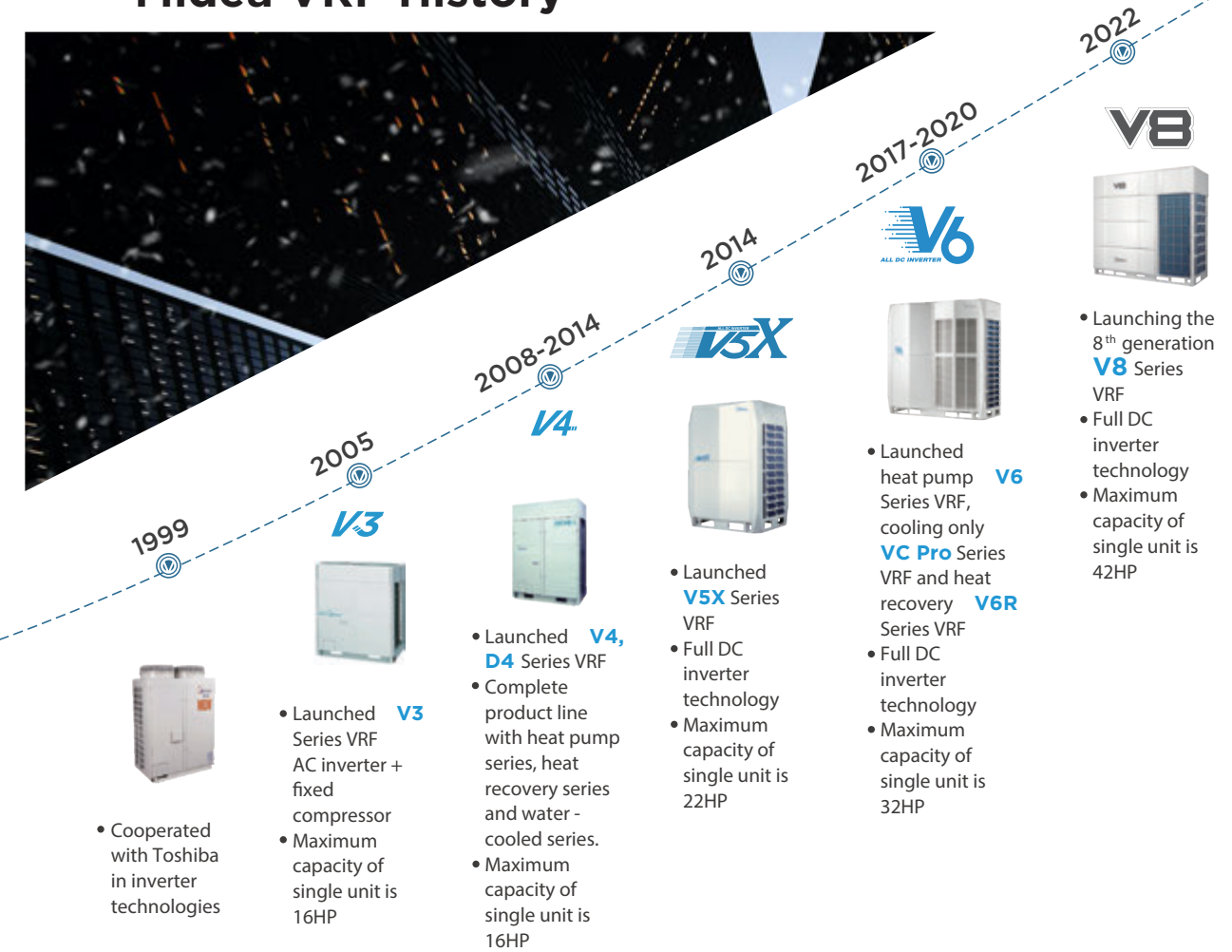


## Midea MBT

Midea MBT (Midea Building Technologies) is a key division of the Midea Group, a leading provider of comprehensive solutions of intelligent building, involving energy sources, elevators, control systems, and heating, ventilation & air conditioning. Midea MBT has continued with the tradition of innovation upon which it was founded and emerged as a global leader in the HVAC and building management industry. A strong drive for advancement has resulted in an extensive R&D department that has placed Midea MBT at

the forefront of a competitive edge. Through these independent projects and joint-cooperation with other global enterprises, Midea has supplied thousands of innovative solutions to customers worldwide.

## Midea VRF History



### 3 businesses constitute the significant components of Midea intelligent building solutions



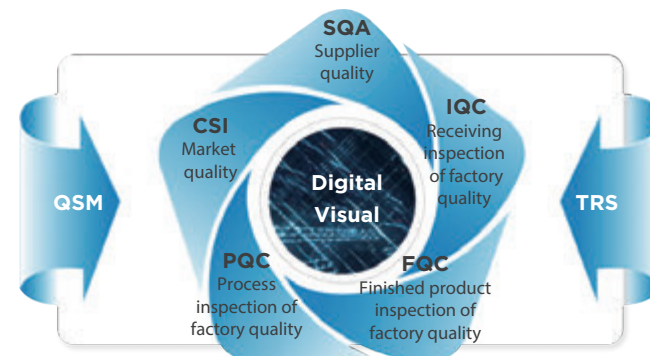
### 4 production bases can achieve fast delivery



### Over 100 testing labs cover all different real application sceneries



### All products can be visualized and digitalized throughout entire process





## Benefits of Midea VRF

### For End-users

Healthy Operation  
Cost Saving Operation  
Comfortable Environment



### For Consultants

Diversified Solutions  
Professional Tool and Support  
Design Flexibility



### For Building Owners

Energy Saving Management  
Reliable Operation  
Backup Solution



### For Construction Companies

Green Solutions  
Space Saving Design  
Intelligent Management





## Application Solutions

### Office Complexes

#### Enjoy comfort while working

Be it small or large sized, Midea VRF provides solution for all office buildings and its smart control solutions makes the management of VRF simple and easy whereas the wide variety of indoor units are suitable for all designs.



### Residential Apartments

#### One for every home

The compact size and high efficiency make Midea VRF suitable for all residential homes.



### Hotels & Shopping Malls

#### Increase your business, not your bills

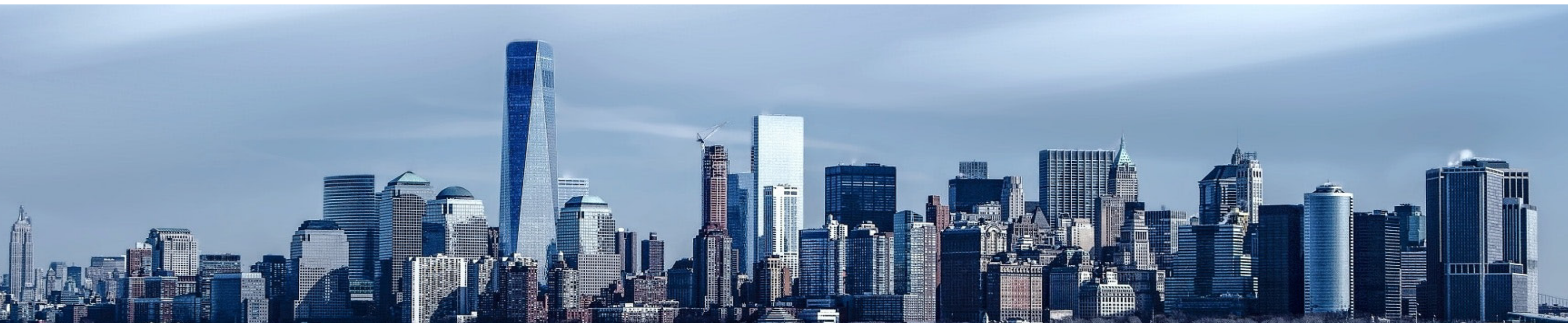
The high efficiency and reliability of Midea VRF makes it suitable to be used for all commercial applications. The intelligent control solutions like hotel key cards and touch screen controller makes the management easy.



### Hospitals/ Schools/ Airports

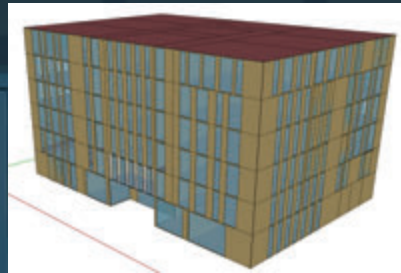
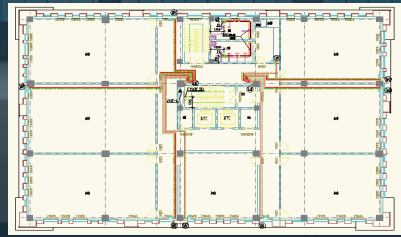
#### Meeting all expectations

The innovative design and a variety of indoor unit choices makes Midea VRF suitable for all kinds of applications. The newly designed puro-air kit is perfect for modern hospitals.

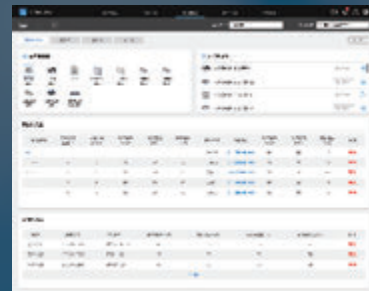




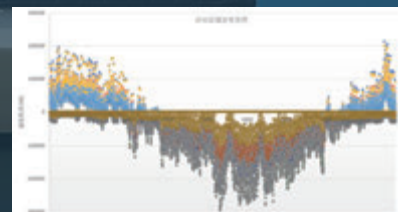
## Design Service



Energy Plus  
Building load  
calculation

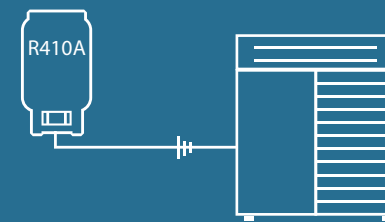


BIM  
building  
information  
import



MSSP Online  
VRF system design

## Installation service

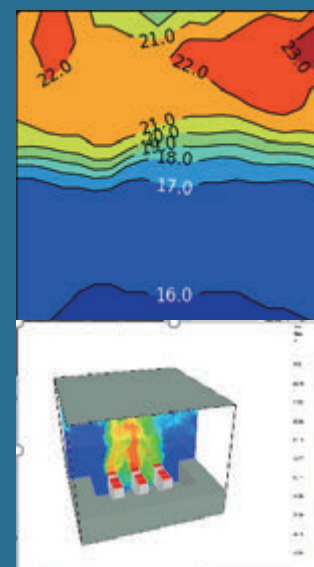


Automatic refrigerant  
charge



Automatic commissioning  
report

MCFD  
Energy consumption  
and airflow simulation  
optimization



## Management service



The probability of  
FiltH blockage 80%



Degradation of energy  
efficiency 25%

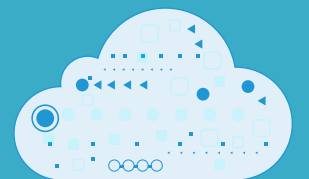
Continuous energy  
saving service



## After-sales service



Intelligent mainte-  
nance tool



Cloud-based big  
data analytics

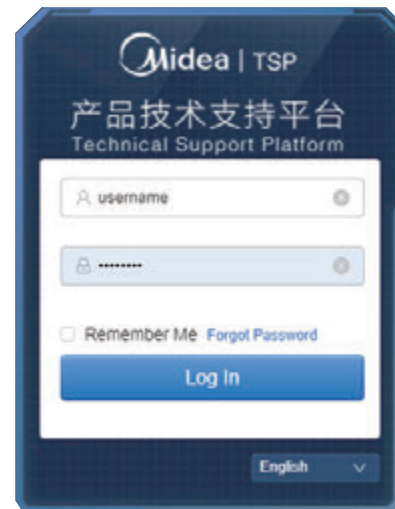
2 +10 +N Spare Parts  
Layout can ensure  
the timely supply of  
global after-sales  
spare parts.



## Technical Support Platform (TSP)

TSP is a platform for customers to provide professional technical support. Through TSP, you can inquire product information, documentation, spare parts and trouble-shooting, initiate technical questions and quality complaint process, and also support self-service spare parts order.

Website address: <https://tsp.midea.com/>



### My order

Inquire spare parts from exploded view and place spare parts order directly in TSP.

### Document inquiry and download

View or download product technical documentation online, such as catalogs, images, training PPTs, etc.

### Technical inquiry & FAQ

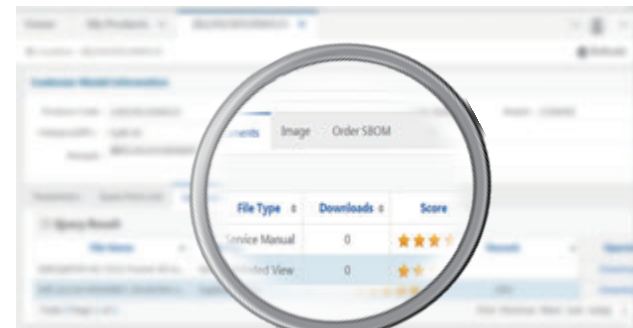
Initiate technical questions online, and our technicians answer them online in time. Find a quick solution in the FAQ.

### Troubleshooting

Query the error code and solution by SN, model name, error code or product type.

### Complain

Initiate the product quality complaint process online, and our after-sales engineers handle related complaints in time.



## Mobile Intelligence Service App (MISA)

MISA is the mobile terminal of TSP, with the same functions as TSP. The mobile service makes technical support more timely and convenient.

<https://link.midea.com>





## Midea Global Spare Parts Center

The global spare parts center provides high quality and fast spare parts supply. Midea online system (<https://tsp.midea.com>) can query and purchase spare parts with one click, further shortening the supply time of spare parts.

The “**2** (HQ Spare parts center) + **10** (Regional Spare parts center) + **N** (Country Spare parts inventory)” Spare Parts Layout can ensure the timely supply of global after-sales spare parts.





# CONTROL SOLUTIONS

Remote Controllers

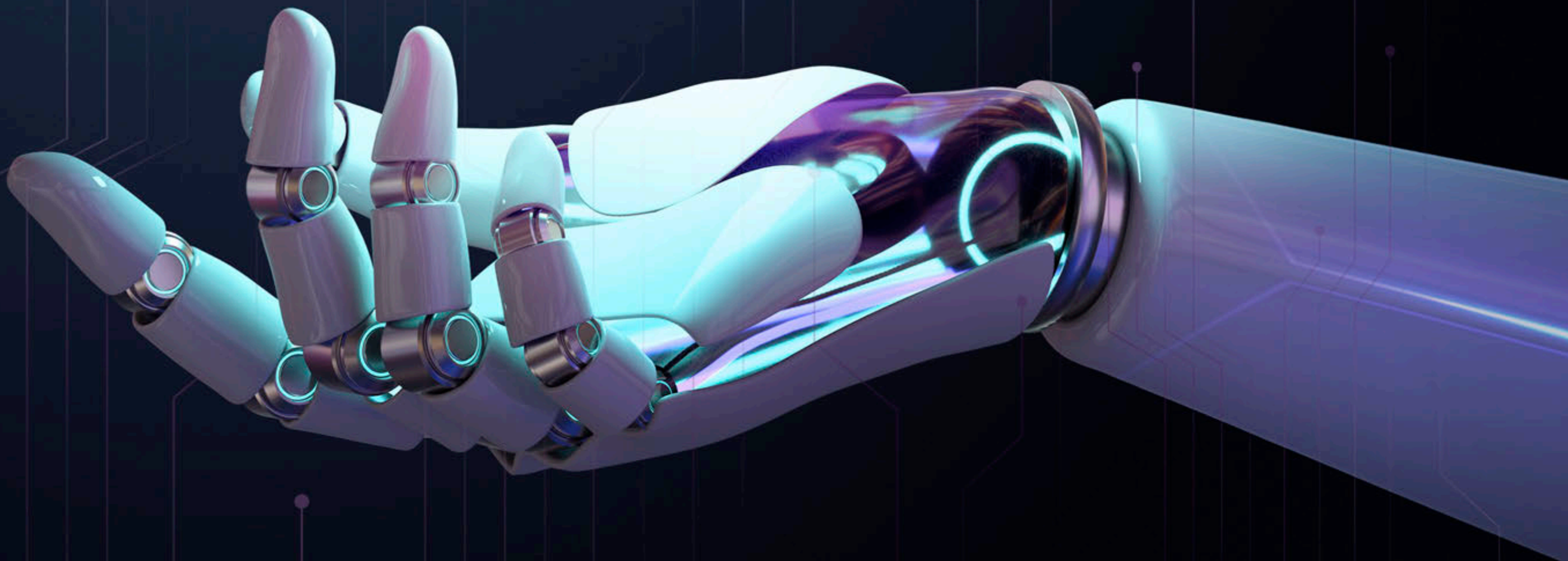
Wired Controllers

Centralized Control Solutions

Network Control System

BMS Gateways

Accessories





CONTROLLER LINEUP

| Wireless Remote Controllers                                                                 | Wired Remote Controllers                                                                       | Centralized Control Solutions                                                                   |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <br>RM12F1 | <br>WDC3-86S  | <br>TC3-10.1 |
| <br>RM12F  | <br>WDC3-86T  |                                                                                                 |
|                                                                                             | <br>WDC3-120T | <br>IMMPRO II |

| Network Control System                                                                                | BMS Gateways                                                                                   | Accessories                                                                                           |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <br>GW3-CLOUD<br>+ | <br>GW3-BAC | <br>MA3-EK       |
|                                                                                                       | <br>GW3-MOD |                                                                                                       |
| <br>GW3-CLOUD<br>+ | <br>GW3-LON | <br>DIAGNOSIS(A) |
|                                                                                                       | <br>GW3-KNX |                                                                                                       |
| Cloud Control/ APP                                                                                    |                                                                                                |                                                                                                       |



META is the abbreviation of Midea Evaporating Temperature Alteration  
Further upgraded META technology to maximize ENERGY SAVING.



Remote Controllers



Features

| Model                          |  RM12F1 |  RM12F |
|--------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| On / Off                       | ●                                                                                        | ●                                                                                         |
| Mode selection                 | ●                                                                                        | ●                                                                                         |
| Temperature setting            | ● (0.5°C or 1°C steps)                                                                   | ● (0.5°C or 1°C steps)                                                                    |
| 7-speed fan control            | ●                                                                                        | ●                                                                                         |
| Auto swing                     | ●                                                                                        | ●                                                                                         |
| 5-step swing louver            | ●                                                                                        | ●                                                                                         |
| Address setting                | ●                                                                                        | ●                                                                                         |
| Follow me                      | ×                                                                                        | ●                                                                                         |
| Eco mode                       | ●                                                                                        | ●                                                                                         |
| Silent mode                    | ●                                                                                        | ●                                                                                         |
| Display shut-off               | ●                                                                                        | ●                                                                                         |
| Daily timer                    | ●                                                                                        | ●                                                                                         |
| Self Cleaning Mode setting     | ●                                                                                        | ×                                                                                         |
| Sterilization function setting | ●                                                                                        | ×                                                                                         |
| Keyboard lock                  | ●                                                                                        | ●                                                                                         |
| Background light               | ●                                                                                        | ●                                                                                         |
| Indoor Unit parameter setting  | ●                                                                                        | ●                                                                                         |
| Dimensions (HxWxD) (mm)        | 170x48x20                                                                                | 170x48x20                                                                                 |
| Batteries                      | 1.5V (LR03/AAA) × 2                                                                      |                                                                                           |
| Indoor unit series             | V8 IDU, 3rd and 2nd generation IDU                                                       |                                                                                           |

Note:  
●: equipped as standard; ×: without this function

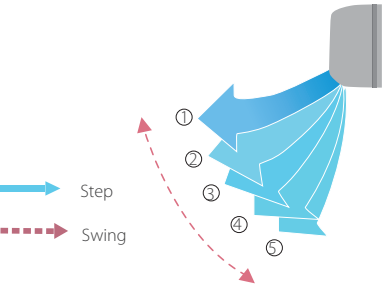
Follow Me

With the follow me function, the indoor unit responds to the temperature measured by the temperature sensor built-in to the wireless remote controller, rather than the temperature sensor in the indoor unit itself, enabling more precise control of the temperature in the user's immediate environment.



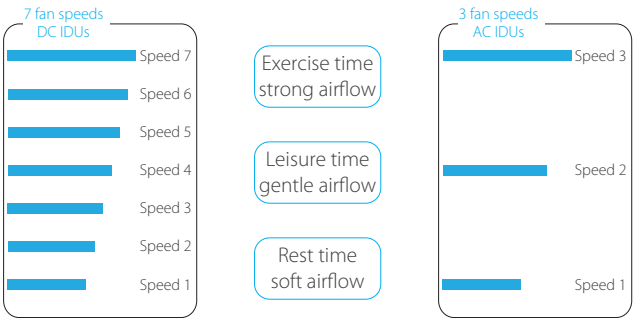
5 Swing Angles for Louver

Thanks to the 5 swing angles for indoor unit louver, the air flow direction can be controlled more precisely.



Multiple Fan Speed Control

The DC Series comes with 7 indoor fan speed options and AC Series with 3 indoor fan speed options to meet the needs of different indoor conditions.



Self Cleaning Mode setting

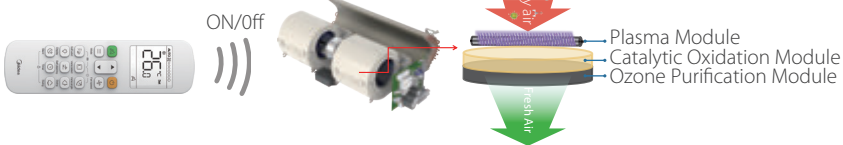
Can be turned on Self Cleaning mode.



\*The self clean function is only available for V8 mini VRF.

Sterilization function setting

If the sterilization function is available for the indoor unit, it can be turned on or turned off using this setting.



Wired Controllers





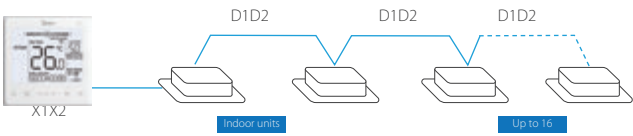
Features

| Model                                | <br>WDC3-86S | <br>WDC3-86T | <br>WDC3-120T |
|--------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| On / Off                             | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Mode selection                       | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Temperature setting                  | ● (0.5°C or 1°C steps)                                                                        | ● (0.5°C or 1°C steps)                                                                        | ● (0.5°C or 1°C steps)                                                                           |
| Dual temperature set points          | ×                                                                                             | ●                                                                                             | ●                                                                                                |
| App control                          | ×                                                                                             | ●                                                                                             | ●                                                                                                |
| 7-speed fan control                  | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Auto swing                           | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| 5-step swing louver                  | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Address setting                      | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Follow me                            | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Meta mode                            | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Room temperature display             | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| °F/°C display                        | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Keyboard lock                        | ×                                                                                             | ●                                                                                             | ●                                                                                                |
| Background light                     | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Daily timer                          | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Weekly schedule timer                | ×                                                                                             | ●                                                                                             | ●                                                                                                |
| Auto restart                         | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| 2 permission levels                  | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Bi-directional communication         | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Group control                        | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Main or secondary controller setting | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Display shut-off                     | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Silent mode                          | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Remote signal receiver               | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Clean filter reminder                | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| Extension function                   | ×                                                                                             | ●                                                                                             | ●                                                                                                |
| Daylight saving time                 | ×                                                                                             | ●                                                                                             | ●                                                                                                |
| Clock display                        | ×                                                                                             | ●                                                                                             | ●                                                                                                |
| Error check function                 | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| System parameter querying            | ●                                                                                             | ●                                                                                             | ●                                                                                                |
| After Hours/Off Timer function       | ×                                                                                             | ●                                                                                             | ●                                                                                                |
| Language                             | English                                                                                       | 14 Languages                                                                                  | 14 Languages                                                                                     |
| One to more control                  | ×                                                                                             | ●                                                                                             | ●                                                                                                |
| Dimensions (WxHxD) (mm)              | 86x86x18                                                                                      | 86x86x18                                                                                      | 120x120x20                                                                                       |
| Power supply                         | 18V DC                                                                                        | 18V DC                                                                                        | 18V DC                                                                                           |
| Indoor unit series                   | 3rd generation IDU and V8 IDU                                                                 |                                                                                               |                                                                                                  |

Note:  
●: equipped as standard; ×: without this function

Group Control

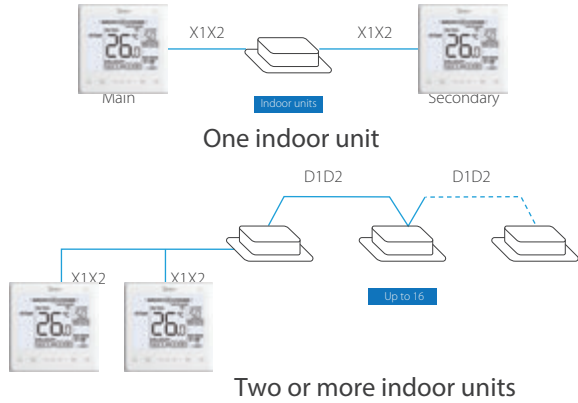
One controller can be used to unify the settings across up to 16 indoor units.



Note: when the 2<sup>nd</sup> generation AC indoor units connect to group controller WDC-120G/WK, the indoor units need to customize D1 D2 terminals. Group control is not available for 2nd generation AC Wall Mounted Series.

Main or Secondary Controller Setting

Two controllers can be used together with single indoor unit. Operating mode and settings would be set according to the most recent instruction received. The controller display screens are synchronized so that both displays update when a setting is adjusted.



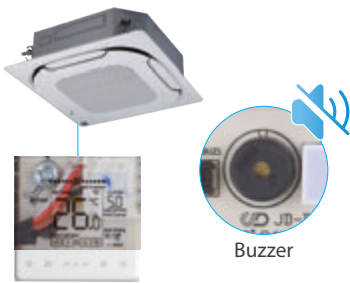
2 Permission Levels

2 permission levels ensure users can easily access control functions and allow administrators convenient access to operating parameters.



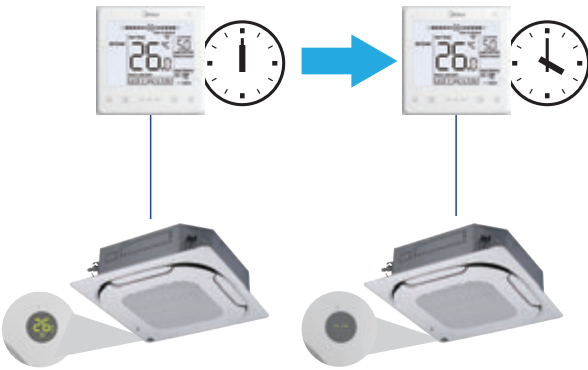
Buzzer Sound On/Off

The buzzer sound of the indoor unit can be turned off to create a quieter environment.



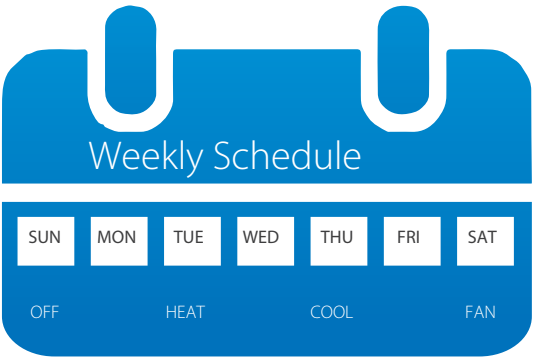
Off Timer Function

We can use the wired controller to set an automatic off timer or after hours function for the indoor unit.



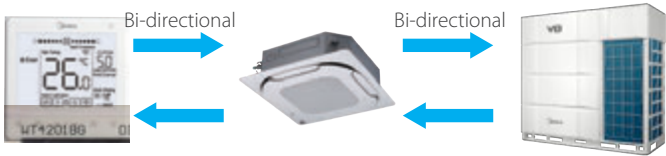
Weekly Schedule Timer

The weekly schedule timer allows users to set multiple schedules each with its own operating mode, temperature settings and fan speeds.



Bi-directional Communication

The wired controller can query the system operating parameters thanks to the new bi-directional communication functionality. In addition, settings including static pressure, cold draft prevention and temperature compensation can be configured on the wired controller.





# Central Control Solution



## Features

|                                                        |                                                                                                             |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Model                                                  | <div><br/>TC3-10.1</div> |
| Max. number of indoor units                            | 384                                                                                                         |
| Max. number of refrigerant systems                     | 48                                                                                                          |
| Touch screen                                           | ● (10.1-inch)                                                                                               |
| On/Off                                                 | ●                                                                                                           |
| Mode selection                                         | ●                                                                                                           |
| Temperature setting                                    | ● (0.5°C steps)*                                                                                            |
| 7-speed fan control                                    | ●*                                                                                                          |
| Auto swing                                             | ●                                                                                                           |
| 5-step swing louver*                                   | ●                                                                                                           |
| Room temperature display                               | ●                                                                                                           |
| Holiday setting                                        | ●                                                                                                           |
| °C/°F display                                          | ●                                                                                                           |
| Schedule management                                    | ●                                                                                                           |
| Clock display                                          | ●                                                                                                           |
| 2 permission levels                                    | ●                                                                                                           |
| Indoor unit type/model recognition                     | ●*                                                                                                          |
| Indoor unit with capacity larger than 16kW recognition | ●*                                                                                                          |
| Energy management                                      | ●                                                                                                           |
| Group management                                       | ●                                                                                                           |
| Error check function                                   | ●*                                                                                                          |
| USB output                                             | ●                                                                                                           |
| Report display                                         | Error report and operation record                                                                           |
| Operation log                                          | ●                                                                                                           |
| LAN access                                             | ●                                                                                                           |
| Language supported                                     | English,Chinese,Arabic,Spanish,Turkish, Portuguese,Korean,Russian,Italian,Polish,French,German,Georgian     |
| Dimensions (W×H×D)(mm)                                 | 270×183×27                                                                                                  |
| Power supply                                           | 24V AC                                                                                                      |
| Outdoor unit series or indoor unit series              | All V8 series                                                                                               |

Note:  
●: equipped as standard; ×: without this function



Touch Screen

Colorful touch screen and vivid display make operation more convenient and simple.



Group Management

Units can be viewed according to group, system or location, making unit management clearer and more convenient.



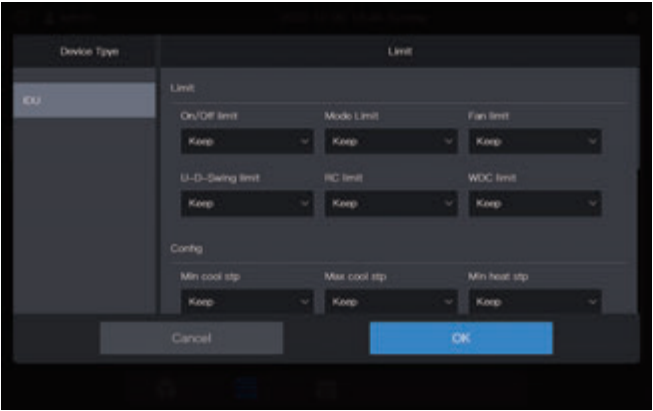
LAN Access

A desktop or laptop PC can be used for browser-based access via a LAN connection.



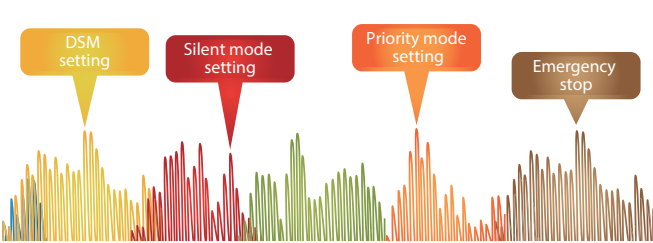
Energy Management

User can set limits on an indoor unit, such as operation temperature range, fan speed, mode, swing command, on/off command, remote controller signal and wired controller signal.



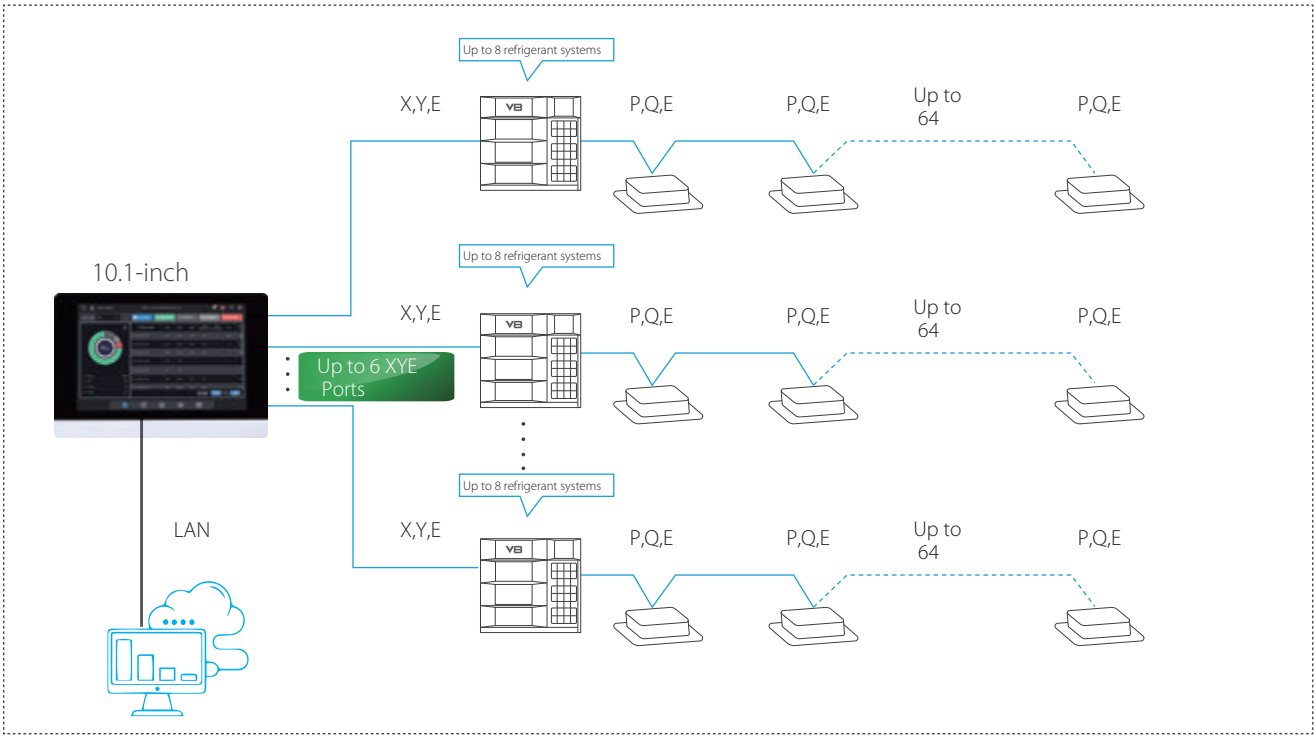
Outdoor Unit Configuration

Outdoor unit configuration and settings can be monitored and controlled without having to go outdoors.



Wiring Flexibility

The controllers can be connected to the master outdoor unit directly.



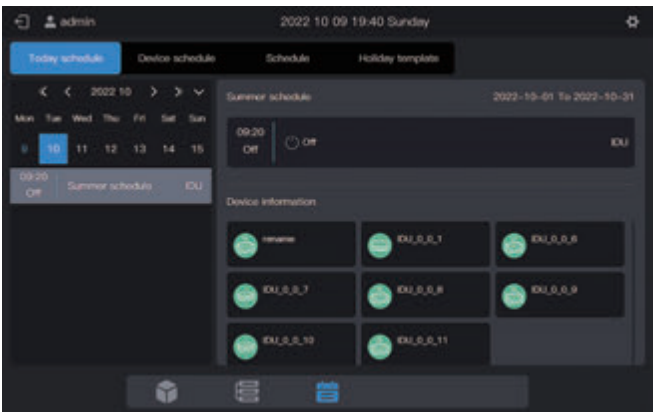
Unit Model Recognition

The controller recognizes the model of indoor and outdoor units and different models are represented by different icons.

| Icon | Model                                                          | Icon | Model                                                          |
|------|----------------------------------------------------------------|------|----------------------------------------------------------------|
|      | Low static pressure and middle static pressure (L-DUCT/M-DUCT) |      | Vertical concealed installation/vertical surface mounting (FS) |
|      | High static pressure (H-DUCT)                                  |      | Four-way Cassette                                              |
|      | Purifier (FAPU)                                                |      | Compact Four-way Cassette (COMPACT)                            |
|      | Wall mounting (WALL)                                           |      | Ceiling-floor type (C&F)                                       |
|      | Old IDU (1st Gen. IDU)                                         |      | Two-way Cassette                                               |
|      | One-way Cassette                                               |      | CONSOLE                                                        |
|      | Group control device icon                                      |      | New ODU (New generation ODU)                                   |

Schedule Management

Daily, weekly or annual schedules can be used to set unit settings such as on/off, operating mode, set temperature, fan speed and swing.





# IMMPRO II



|                                                |                                                                                                                             |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Software model                                 | <div></div> <div>IMMPRO II</div>         |
| On/Off                                         | <div><div></div></div>                                                                                                      |
| Mode selection                                 | <div><div></div></div>                                                                                                      |
| Temperature setting                            | <div><div></div></div>                                                                                                      |
| 7-speed fan contro                             | <div><div></div></div>                                                                                                      |
| Auto swing                                     | <div><div></div></div>                                                                                                      |
| 5-step swing louver*                           | <div><div></div></div>                                                                                                      |
| Room temperature display                       | <div><div></div></div>                                                                                                      |
| Schedule management                            | <div><div></div></div>                                                                                                      |
| °C/ °F display                                 | <div><div></div></div>                                                                                                      |
| Clock display                                  | <div><div></div></div>                                                                                                      |
| 4 permission levels                            | <div><div></div></div>                                                                                                      |
| Indoor unit type/model recognition             | <div><div></div></div>                                                                                                      |
| Energy management                              | <div><div></div></div>                                                                                                      |
| Group management                               | <div><div></div></div>                                                                                                      |
| Error check function                           | <div><div></div></div>                                                                                                      |
| Report display and output                      | <div>Error history, Operation history,<br/>User history, Cycle data history</div>                                           |
| 3D view                                        | <div><div></div></div>                                                                                                      |
| Language supported                             | <div>English,Chinese,Arabic,Spanish,Turkish,<br/>Portuguese,Korean,Russian,Italian,Polish,<br/>French,German,Georgian</div> |
| Hardware model                                 | <div></div> <div>MK2-B331</div>        |
| Dimensions (HxWxD)( mm)                        | <div>237×144×87.2</div>                                                                                                     |
| Max. number of gateways per software system    | <div>2</div>                                                                                                                |
| Power supply                                   | <div>9~30V DC</div>                                                                                                         |
| Max. number of indoor units per gateway        | <div>512</div>                                                                                                              |
| Max. number of refrigerant systems per gateway | <div>64</div>                                                                                                               |
| Unit Series                                    | <div>1Pure V8 system</div>                                                                                                  |



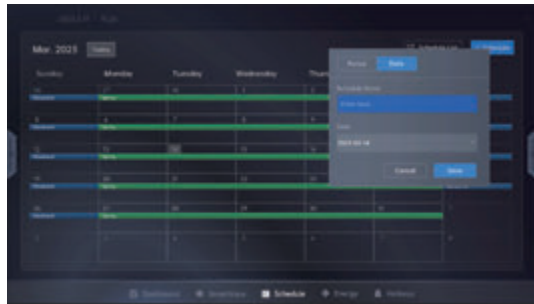
## Device Management and Control

Users can flexibly group and centralize control the VRF devices based on different system or location and scenario. And limit the device functions, such as temperature setting range fan speed, operation mode, swing lock, remote controller lock and wired controller lock.



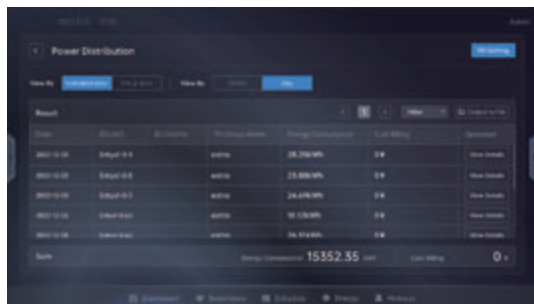
## Schedule Function

IMMPRO II can be used to make a detailed schedule for the indoor units. The schedule can be set for the whole year.



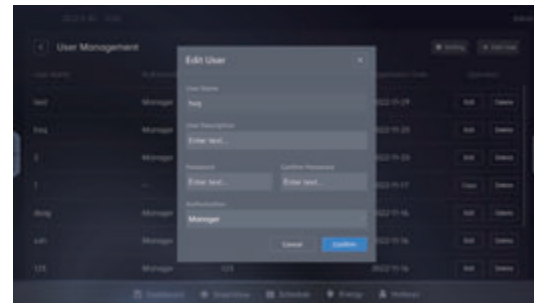
## Power Distribution

Cooperated with the Midea digital power meter, IMMPRO II can collect ODU power consumption information and use the patented Midea Calculation Method to estimate the electricity consumption of the indoor units and then using the rules set by the user divide the whole power consumption among building occupants.



## User and Permission Management

The administrator can add or reduce user accounts according to the VRF management teams of the building, and set corresponding roles for each account. The administrator can flexibly assign permissions of each function of the software to each role.

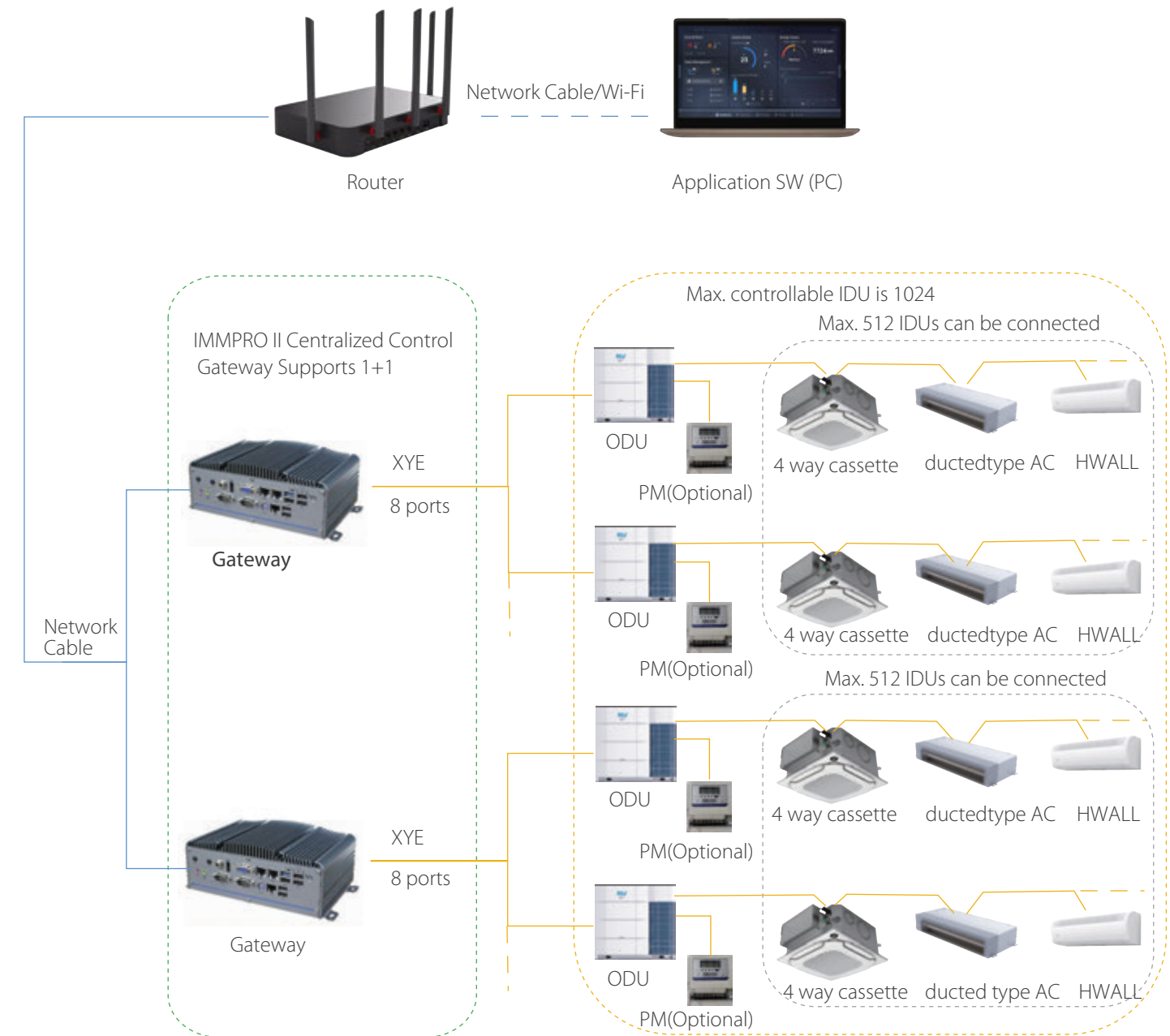


## 2D/3D view and setting

Users can upload project floor drawings and arrange equipment locations according to the engineering information. The software will be able to display the distribution of system equipment in a 2D or 3D manner.

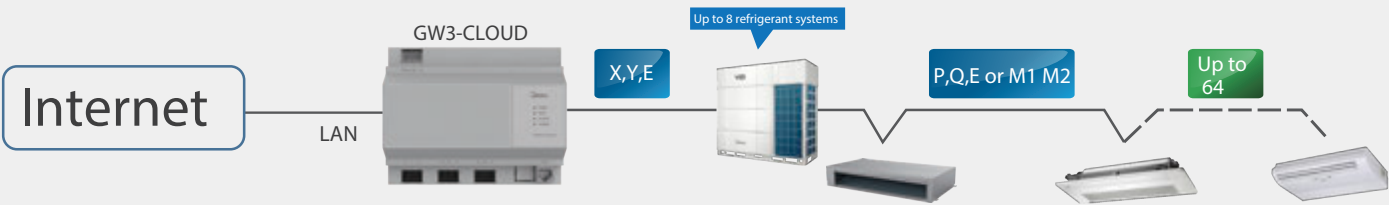
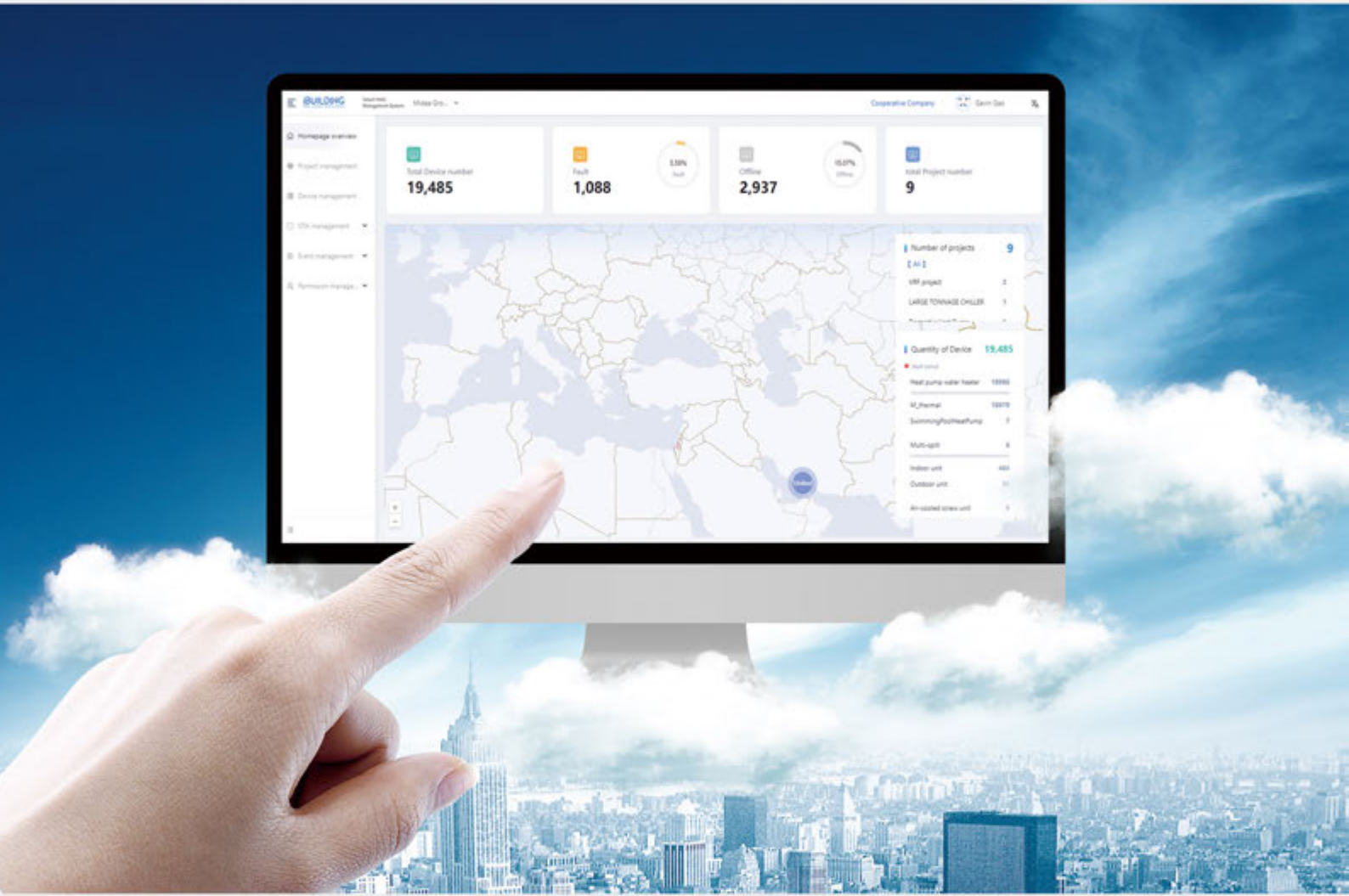


## Easy Installation and Debugging





# Network Control System



## Features

|                                                |                                                                                                  |                                                                                     |
|------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Cloud Control                                  |               |  |
| Software model                                 | iEasyComfort                                                                                     | iEasyComfort App                                                                    |
| Device control                                 | ●                                                                                                | ●                                                                                   |
| Device monitor                                 | ●                                                                                                | ●                                                                                   |
| Group control                                  | ●                                                                                                | ●                                                                                   |
| Schedule management                            | ●                                                                                                | ●                                                                                   |
| Group management                               | ●                                                                                                | ●                                                                                   |
| Error check function                           | ●                                                                                                | ●                                                                                   |
| Operation log                                  | ●                                                                                                | ●                                                                                   |
| Clock and Weather display                      | ●                                                                                                | ●                                                                                   |
| Max. number of gateways per software system    | Unlimited                                                                                        | Unlimited                                                                           |
| Hardware model                                 | <br>GW3-CLOUD |                                                                                     |
| Dimensions (HxWxD)( mm)                        | 154x124x51.5                                                                                     |                                                                                     |
| Power supply                                   | 12V DC                                                                                           |                                                                                     |
| Max. number of indoor units per gateway        | 64                                                                                               |                                                                                     |
| Max. number of refrigerant systems per gateway | 8                                                                                                |                                                                                     |
| Unit Series                                    | Pure V8 system                                                                                   |                                                                                     |

|                                                |                                                                                                    |  |
|------------------------------------------------|----------------------------------------------------------------------------------------------------|--|
| Cloud Service Platform                         |               |  |
| Software model                                 | Intelligent HVAC Management System                                                                 |  |
| Project management                             | ●                                                                                                  |  |
| Device management                              | ●                                                                                                  |  |
| ODU and IDU OTA management                     | ●                                                                                                  |  |
| Event management                               | ●                                                                                                  |  |
| Permission management                          | ●                                                                                                  |  |
| Max. number of gateways per software system    | Unlimited                                                                                          |  |
| Hardware model                                 | <br>GW3-CLOUD |  |
| Dimensions (HxWxD)( mm)                        | 154x124x51.5                                                                                       |  |
| Power supply                                   | 12V DC                                                                                             |  |
| Max. number of indoor units per gateway        | 64                                                                                                 |  |
| Max. number of refrigerant systems per gateway | 8                                                                                                  |  |
| Unit Series                                    | Pure V8 system                                                                                     |  |

Note:  
●: equipped as standard; ✕: without this function



# M-BMS MAX

Project Qty Level A **57,028**

Current month **5,325**

VRF 3,204 Air-cooled modular chiller water system 450  
Air-cooled heat pump 1,541 Centrifugal/screw chiller water system 130

2019年12月24日 20:16:23

Shunde

|               | 12.25     | 12.26    | 12.27   | 12.28      |
|---------------|-----------|----------|---------|------------|
|               | Wednesday | Thursday | Friday  | Saturday   |
|               |           |          |         |            |
| <b>20</b>     |           |          |         |            |
| 16-26°C       | 16-26°C   | 13-25°C  | 15-21°C | 16-22°C    |
| NWwind 2level | Cloudy    | Cloudy   | Cloudy  | Light rain |

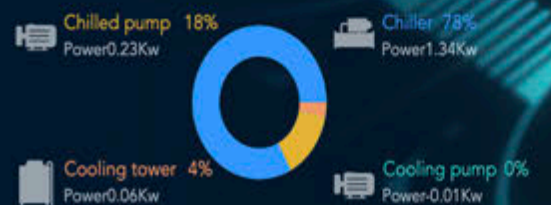
Transient Chain Indexes

| Yesterday |                       | Today |
|-----------|-----------------------|-------|
| 21.40     | Outdoor temp. °C      | 19.37 |
| 82.27     | RH %                  | 81.56 |
| 19.30     | WB temp. °C           | 17.29 |
| 18.28     | Dew-point temp. °C    | 16.15 |
| 13.30     | Moisture content g/kg | 11.60 |
| 2.32      | Total power kW        | 1.26  |
| 0.00      | Cooling capacity kW   | 0.00  |

Real-Time Monitoring Data



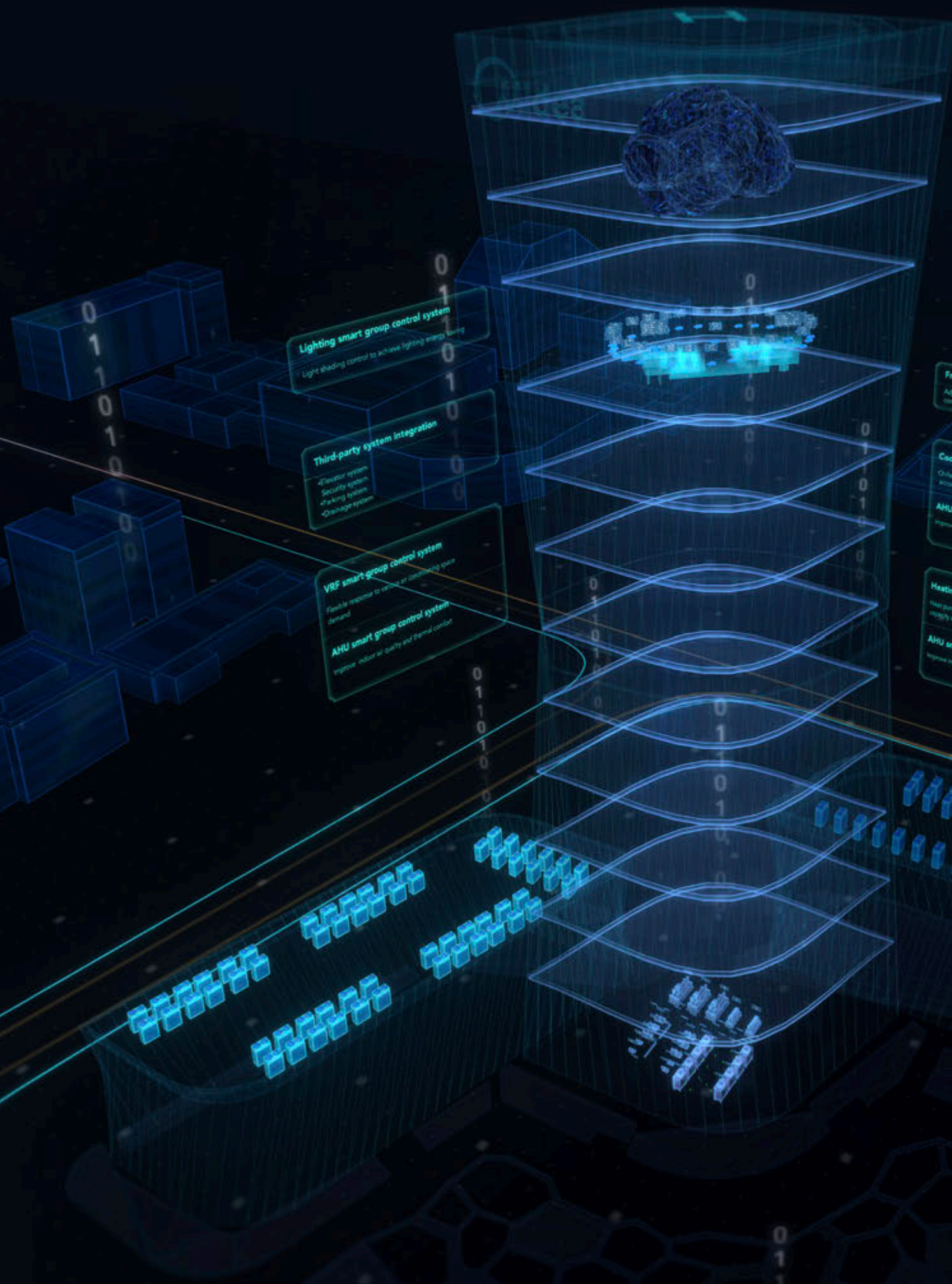
Plant Room Power Data



## BMS Gateway

Monitoring and control of Midea's VRF air conditioners can be integrated into building management systems, enabling air conditioning to be monitored alongside lighting, power, fire, access and security systems.

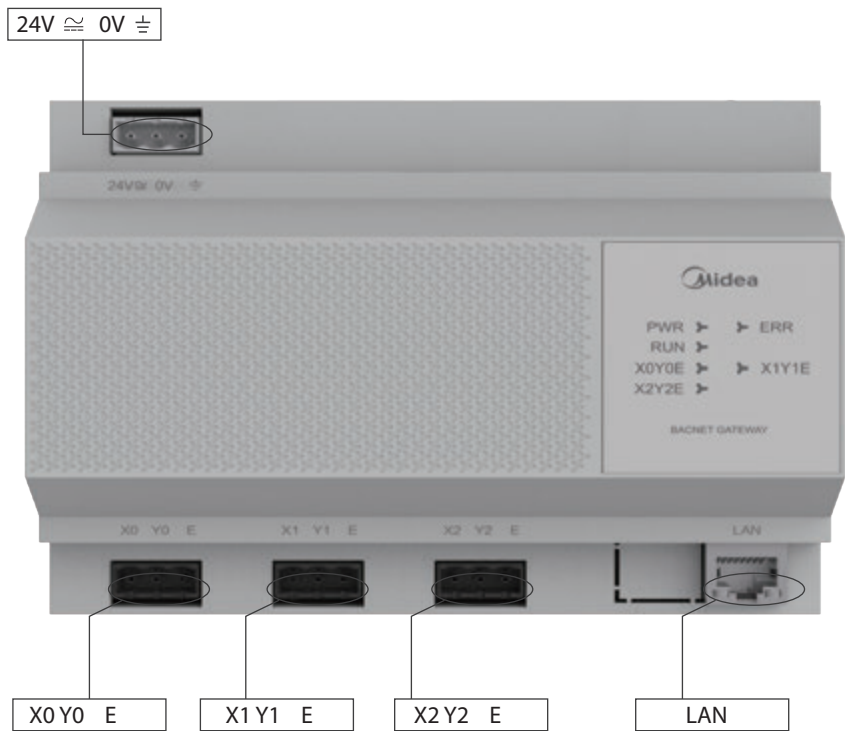
Midea's gateway devices provide full compatibility with the leading BMS protocols: BACnet, LonWorks, Modbus and KNX.





# BACnet Gateway

## Port Connections

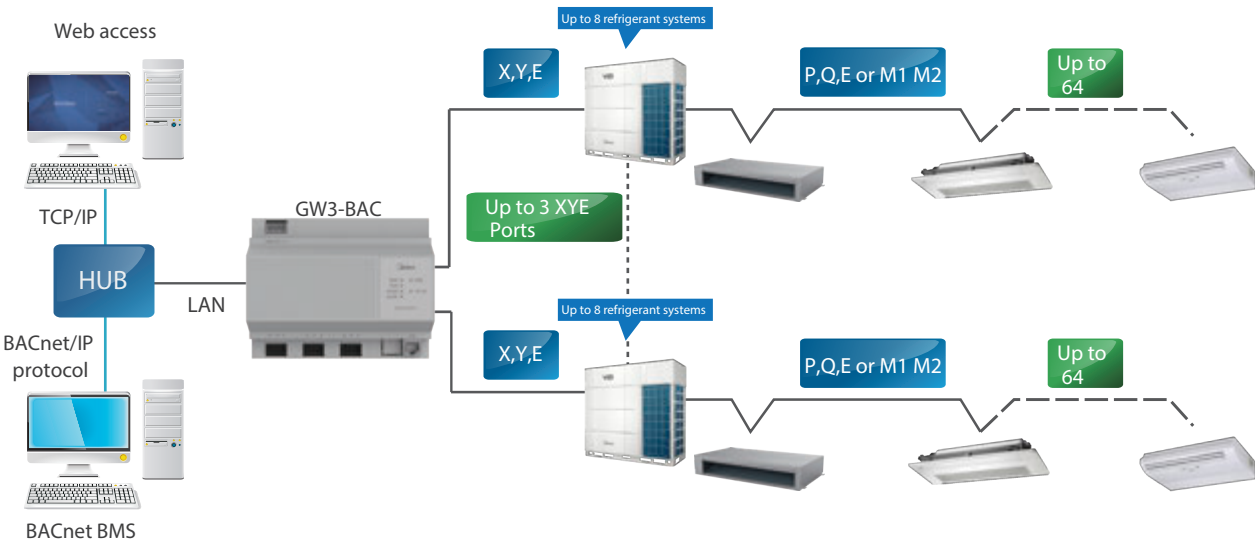


## Full Integration

The BACnet Gateway enables seamless connection of Midea VRF systems with building management systems built on the BACnet communication protocol.

## Network Flexibility

The gateway can be connected to master outdoor units' XYE ports directly.



## Features

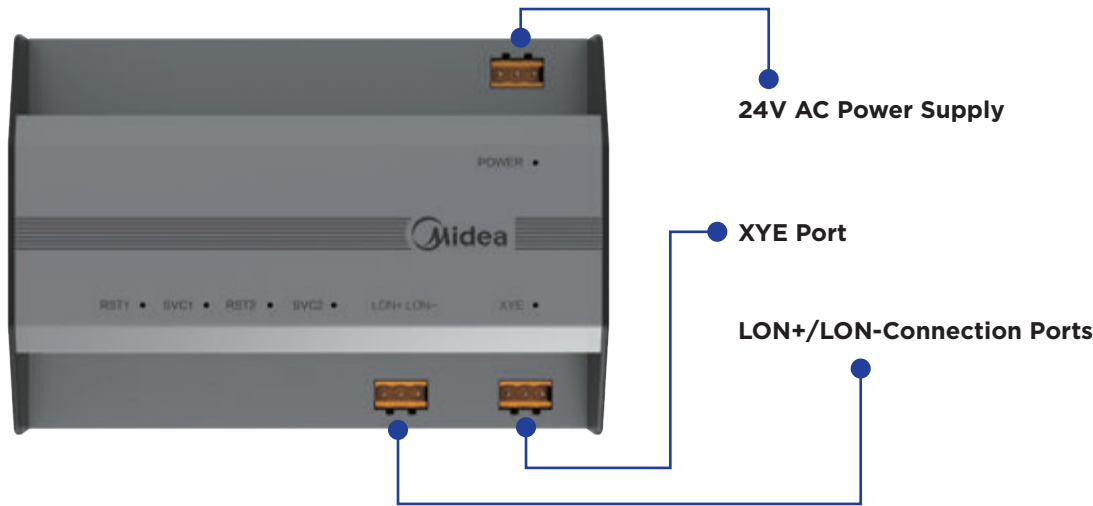
|                                    |                                |                                                                                                |
|------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------|
| Model                              |                                | <br>GW3-BAC |
| Max number of indoor units         |                                | 192                                                                                            |
| Max. number of refrigerant systems |                                | 24                                                                                             |
| Indoor unit control                | On / Off                       | ●                                                                                              |
|                                    | Mode selection                 | ●                                                                                              |
|                                    | Temperature setting            | ●                                                                                              |
|                                    | Fan speed                      | ●                                                                                              |
|                                    | Swing                          | ●                                                                                              |
|                                    | Energy management              | ●                                                                                              |
| Indoor unit monitoring             | Room temperature display       | ●                                                                                              |
|                                    | Running status                 | ●                                                                                              |
|                                    | Error status                   | ●                                                                                              |
|                                    | EXV status                     | ●                                                                                              |
| Outdoor unit control               | Emergency Stop                 | ●                                                                                              |
| Outdoor unit monitoring            | Operating mode                 | ●                                                                                              |
|                                    | Outdoor ambient temperature    | ●                                                                                              |
|                                    | Fan speed                      | ●                                                                                              |
|                                    | Compressor operating frequency | ●                                                                                              |
|                                    | Exhaust Temperature            | ●                                                                                              |
|                                    | System pressure                | ●                                                                                              |
|                                    | Error status                   | ●                                                                                              |
|                                    | Error alarms                   | ●                                                                                              |
| LAN access                         |                                | ●                                                                                              |
| Dimensions (HxWxD)( mm)            |                                | 154×124×51.5                                                                                   |
| Power supply                       |                                | 24V AC/DC                                                                                      |
| Unit Series                        |                                | Pure V8 system                                                                                 |

Note:  
●: equipped as standard; ×: without this function



# LonWorks Gateway

## Port Connections

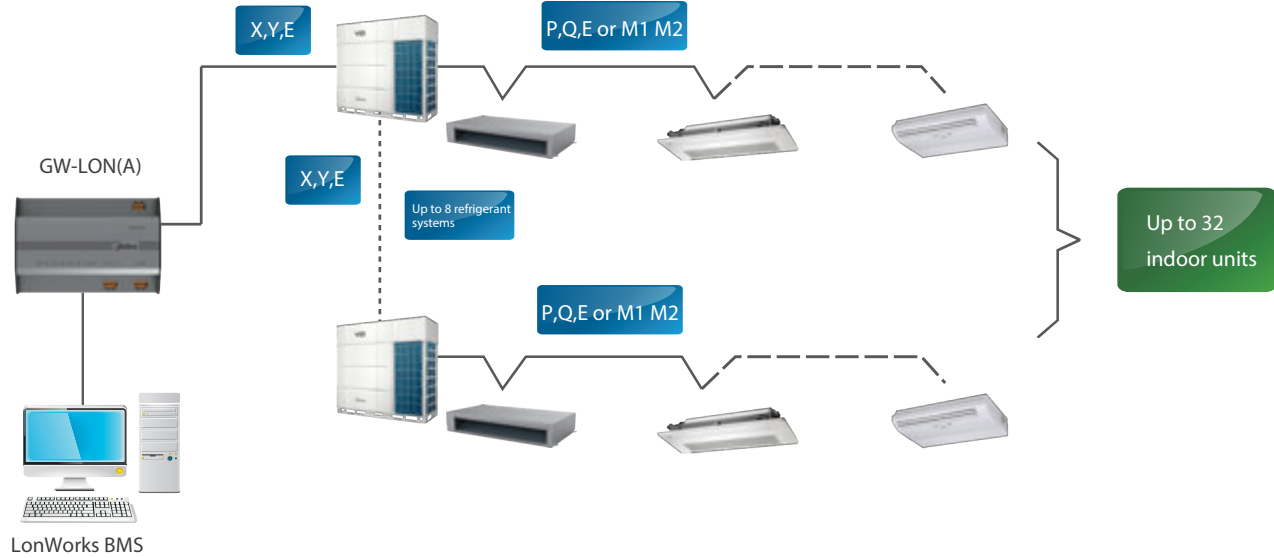


## Full Integration

The Lonworks Gateway enables seamless connection of Midea VRF systems with home and building management systems built on the Lonworks communication protocol.

## Network Flexibility

The gateway can be connected to master outdoor units' XYE port directly.



## Features

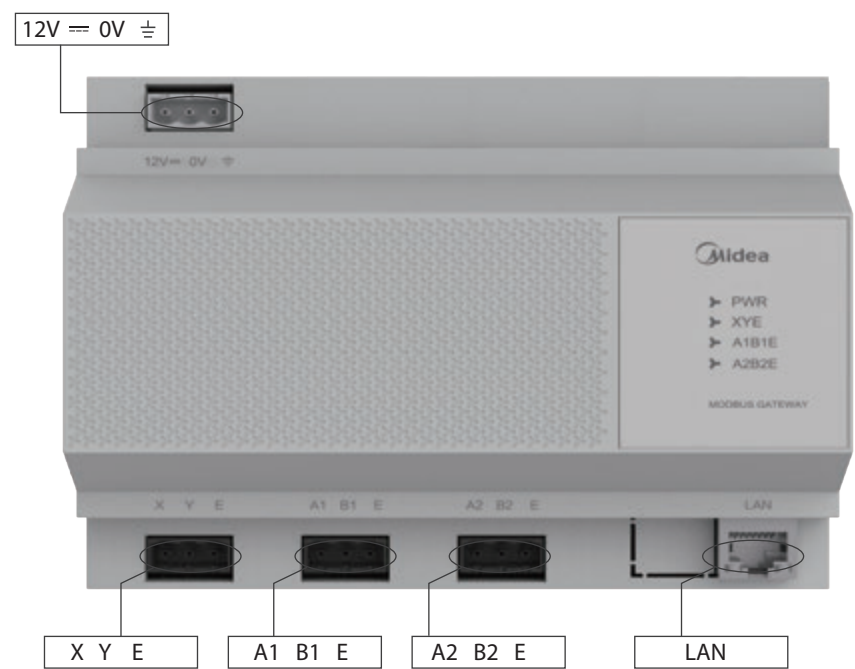
|                                    |                     |                                                                                                |  |
|------------------------------------|---------------------|------------------------------------------------------------------------------------------------|--|
| Model                              |                     | <br>GW3-LON |  |
| Max. number of indoor units        |                     | 32                                                                                             |  |
| Max. number of refrigerant systems |                     | 8                                                                                              |  |
| Control                            | Mode selection      | ●                                                                                              |  |
|                                    | Temperature setting | ●                                                                                              |  |
|                                    | Fan speed           | ●                                                                                              |  |
|                                    | Group shut down     | ●                                                                                              |  |
|                                    | On / Off            | ●                                                                                              |  |
| Indoor unit monitoring             | Operating mode      | ●                                                                                              |  |
|                                    | Set temperature     | ●                                                                                              |  |
|                                    | Fan speed           | ●                                                                                              |  |
|                                    | Online status       | ●                                                                                              |  |
|                                    | Operating status    | ●                                                                                              |  |
|                                    | Room temperature    | ●                                                                                              |  |
| Outdoor unit monitoring            | Error status        | ●                                                                                              |  |
|                                    | Error status        | ●                                                                                              |  |
| Dimensions (HxWxD)( mm)            |                     | 116×170×67                                                                                     |  |
| Power supply                       |                     | 24V AC                                                                                         |  |
| Unit Series                        |                     | Pure V8 system                                                                                 |  |

Note:  
●: equipped as standard



# Modbus Gateway

## Port Connections



## Two types of register addresses

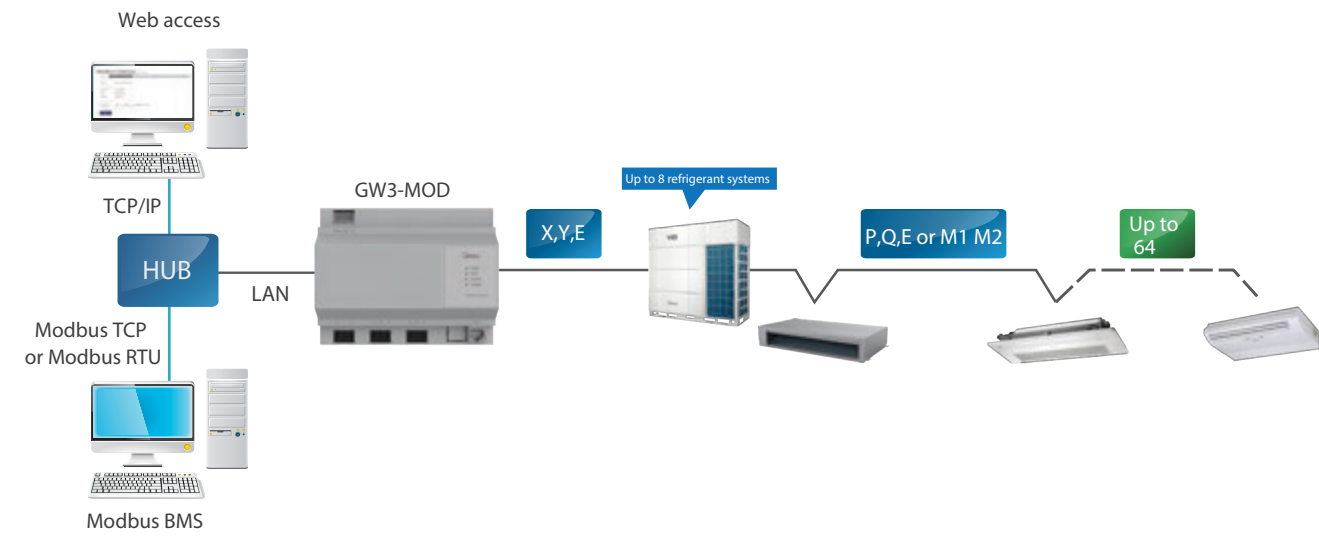
By IDU/ODU address or by IDU/ODU Parameter Type (Continuous Addresses).  
For the below parameter type can check by continuous addresses: IDU Operating mode status, IDU Operating fan speed status, IDU Set Temperature, IDU Ambient Temperature, IDU On/Off status, IDU online status, IDU Fault status, ODU Operating status, ODU Fault status, ODU online status and all IDU control register.

## Full Integration

The Modbus Gateway enables seamless connection of Midea VRF systems with building management systems built on the Modbus communication protocol.

## Network Flexibility

The gateway can be connected to master outdoor units' XYE ports directly.



## Features

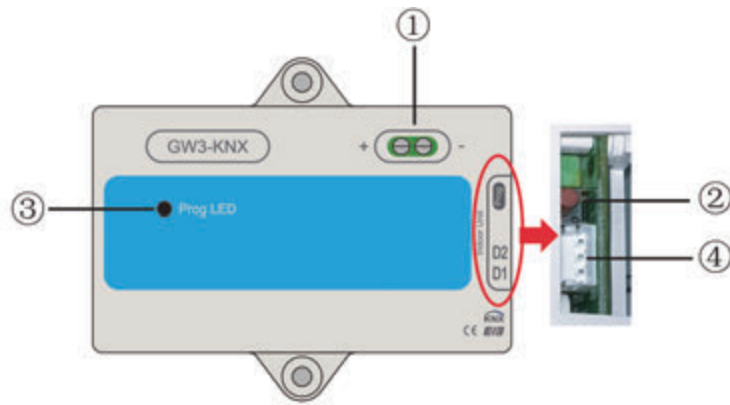
|                                    |                             |                                                                                                |
|------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| Model                              |                             | <br>GW3-MOD |
| Max. number of indoor units        |                             | 64                                                                                             |
| Max. number of refrigerant systems |                             | 8                                                                                              |
| Control                            | On / Off                    | ●                                                                                              |
|                                    | Mode selection              | ●                                                                                              |
|                                    | Temperature setting         | ●                                                                                              |
|                                    | Fan speed                   | ●                                                                                              |
|                                    | Energy management           | ●                                                                                              |
|                                    | Group on/off                | ●                                                                                              |
| Indoor unit monitoring             | Online status               | ●                                                                                              |
|                                    | Room temperature            | ●                                                                                              |
|                                    | Error status                | ●                                                                                              |
|                                    | Operating mode              | ●                                                                                              |
| Outdoor unit monitoring            | Operating mode              | ●                                                                                              |
|                                    | Number of operating IDUs    | ●                                                                                              |
|                                    | Outdoor ambient temperature | ●                                                                                              |
|                                    | Error status                | ●                                                                                              |
| LAN access                         |                             | ●                                                                                              |
| Dimensions (HxWxD)( mm)            |                             | 154x124x51.5                                                                                   |
| Power supply                       |                             | 12V DC                                                                                         |
| Unit Series                        |                             | Pure V8 system                                                                                 |

Note:  
●: equipped as standard; ×: without this function



# KNX Gateway

## Port Connections



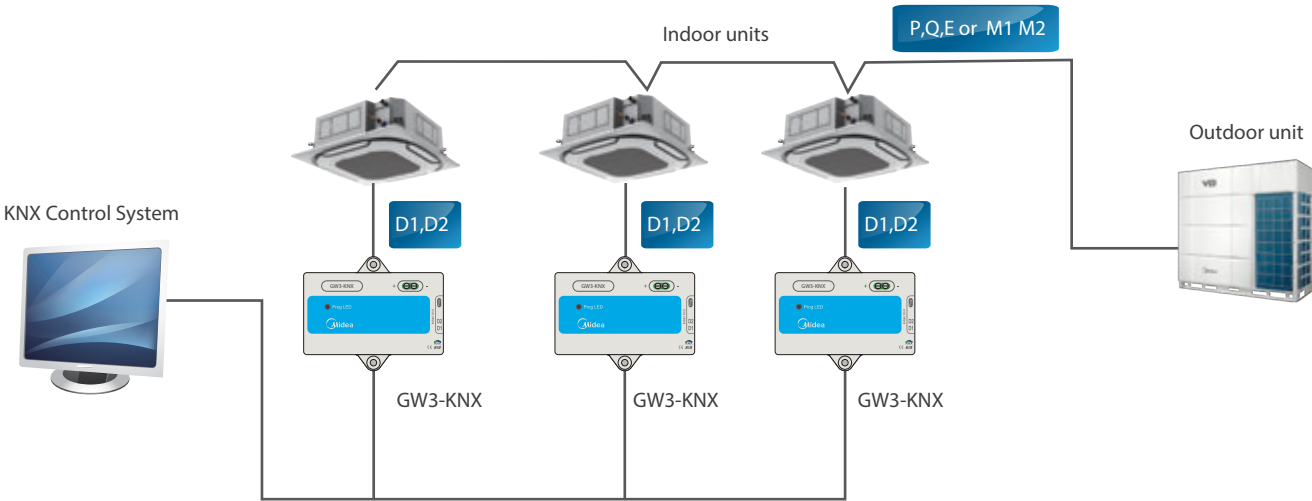
|   | Features                    |
|---|-----------------------------|
| 1 | Power Supply DC 29 V        |
| 2 | KNX Programming Button      |
| 3 | KNX Programming Status Lamp |
| 4 | RS485 Communication Ports   |

## Full Integration

The KNX Gateway enables seamless connection of Midea VRF systems with home and building management systems built on the KNX communication protocol.

## Network Flexibility

The gateway can be connected to indoor units' D1D2 port directly.



## Features

|                             |                     |                                                                                                 |  |
|-----------------------------|---------------------|-------------------------------------------------------------------------------------------------|--|
| Model                       |                     | <br>GW3-KNX  |  |
| Max. number of indoor units |                     | 1                                                                                               |  |
| Control                     | On / Off            |              |  |
|                             | Mode selection      |              |  |
|                             | Temperature setting |  (1°C steps) |  |
|                             | 7-speed fan control |  (3-speed)   |  |
|                             | Swing               |              |  |
| Monitoring                  | On / Off            |            |  |
|                             | Mode selection      |            |  |
|                             | Temperature setting |            |  |
|                             | Fan speed           |            |  |
|                             | Swing               |            |  |
|                             | Room temperature    |            |  |
|                             | Error alarm         |            |  |
| Dimensions (HxWxD)( mm)     |                     | 85×51×16                                                                                        |  |
| Power supply                |                     | 29VDC (KNX bus supply)                                                                          |  |
| Indoor unit series          |                     | 3rd generation IDU and V8 IDU                                                                   |  |



# Diagnosis Software



Monitor and Diagnose

Midea’s VRF Diagnosis Software tool is used to monitor VRF systems and diagnose system errors. System settings and operating parameters can be accessed easily and data logs can be reviewed for fault prevention purposes.

Features

|                                    |                                |                                                                                    |
|------------------------------------|--------------------------------|------------------------------------------------------------------------------------|
| Model                              |                                |  |
|                                    |                                | DIAGNOSIS(A)                                                                       |
| Max. number of indoor units        |                                | 64                                                                                 |
| Max. number of refrigerant systems |                                | 1                                                                                  |
| Control                            | Mode selection                 | ●                                                                                  |
|                                    | Temperature setting            | ●                                                                                  |
|                                    | Fan speed                      | ●                                                                                  |
| Outdoor unit monitoring            | Operating mode                 | ●                                                                                  |
|                                    | Capacity                       | ●                                                                                  |
|                                    | Compressor operating frequency | ●                                                                                  |
|                                    | Operating current              | ●                                                                                  |
|                                    | Error status                   | ●                                                                                  |
|                                    | Temperatures                   | T3, T4(See note 1)                                                                 |
|                                    | Valve statuses                 | SV4, SV5, SV6, ST1 (See note 2)                                                    |
|                                    | EXV position                   | ●                                                                                  |
| Indoor unit monitoring             | Operating mode                 | ●                                                                                  |
|                                    | Capacity                       | ●                                                                                  |
|                                    | Fan speed                      | ●                                                                                  |
|                                    | Address                        | ●                                                                                  |
|                                    | Temperatures                   | T1, T2, T2B, TS (See note 3)                                                       |
|                                    | EXV position                   | ●                                                                                  |
| Error codes                        |                                | ●                                                                                  |
| Toubleshooting                     |                                | ●                                                                                  |
| Data logs                          |                                | ●                                                                                  |
| Diagrams                           |                                | System schematic, refregetrant flow diagram, parameter chart                       |
| Languages supported                |                                | English, Chinese                                                                   |
| Units Series                       |                                | Pure V8 system                                                                     |

Note:  
●: equipped as standard  
1. Heat exchanger temperature, outdoor ambient temperature.  
2. Oil return valve, defrosting valve, EXV bypass valve, four-way valve.  
3. Indoor ambient temperature, indoor heat exchanger mid-point temperature, indoor heat exchanger outlet temperature, set temperature.

Expert Diagnosis

Midea’s VRF Diagnosis Software is specially designed to allow service engineers, to understand the operating status of the system at a glance.



Parameter Querying and Parametric Curve

Access all the system parameters easily.



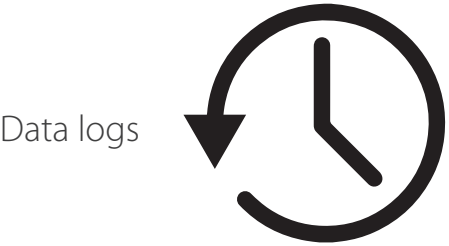
Use-friendly Interface

A stylish and simple interface with rich graphical representations makes diagnosing system issues quick and convenient.



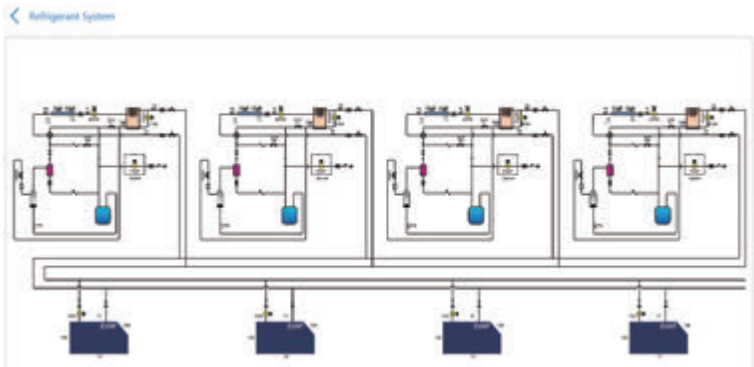
Data Logs

Data logs including operating records and error reports are saved by the software which is useful for discovering system issues.



Diagrams

A system schematic, refregetrant flow diagram and parameter chart can be generated to provide a graphical interpretation of the system status.





Wiring Schematic

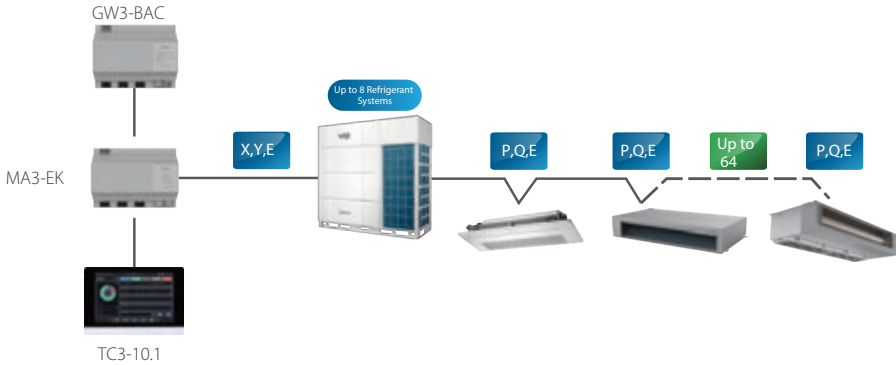


XYE Extension Kit

Simple Design

The MA-EK is used to extend the XYE port of outdoor unit as the 2-way one which can connect to 2 Central Controllers or gateways.

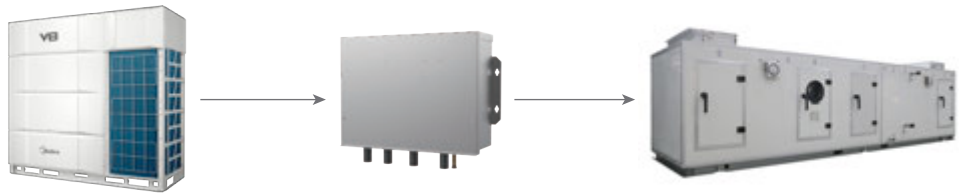
Features

|                                    |                                                                                                           |
|------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Model                              | <div><br/>MA3-EK</div> |
| Max. number of refrigerant systems | 8                                                                                                         |
| Wiring flexibility                 | <div></div>           |
| Dimensions (HxWxD)(mm)             | 154X124X51.5                                                                                              |
| Power supply                       | 12V DC                                                                                                    |
| Unit Series                        | Pure V8 system                                                                                            |

VRF DX AHU KIT

High Efficiency

AHU Control Box facilitates raising the EER/COP of the complete AHU system.



Wide Capacity Range

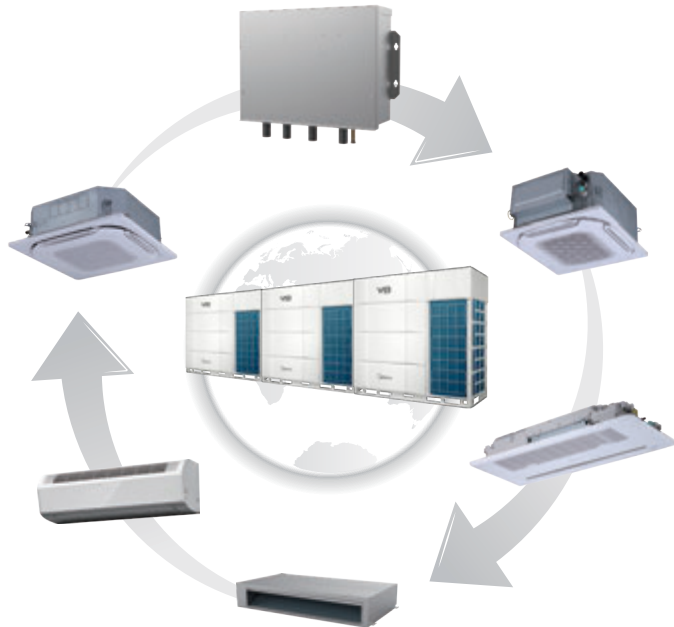
Four control boxes can be used in parallel, giving an overall capacity range of 0.8HP to 80HP.



AHUKZ-00F: 2.2~9kW  
AHUKZ-01F: 9~20kW  
AHUKZ-02F: 20~36kW  
AHUKZ-03F: 36~56kW

Compatible with VRF Systems

AHU Control Box are compatible with Midea VRF outdoor units and can be used together with all types of Midea VRF indoor units.

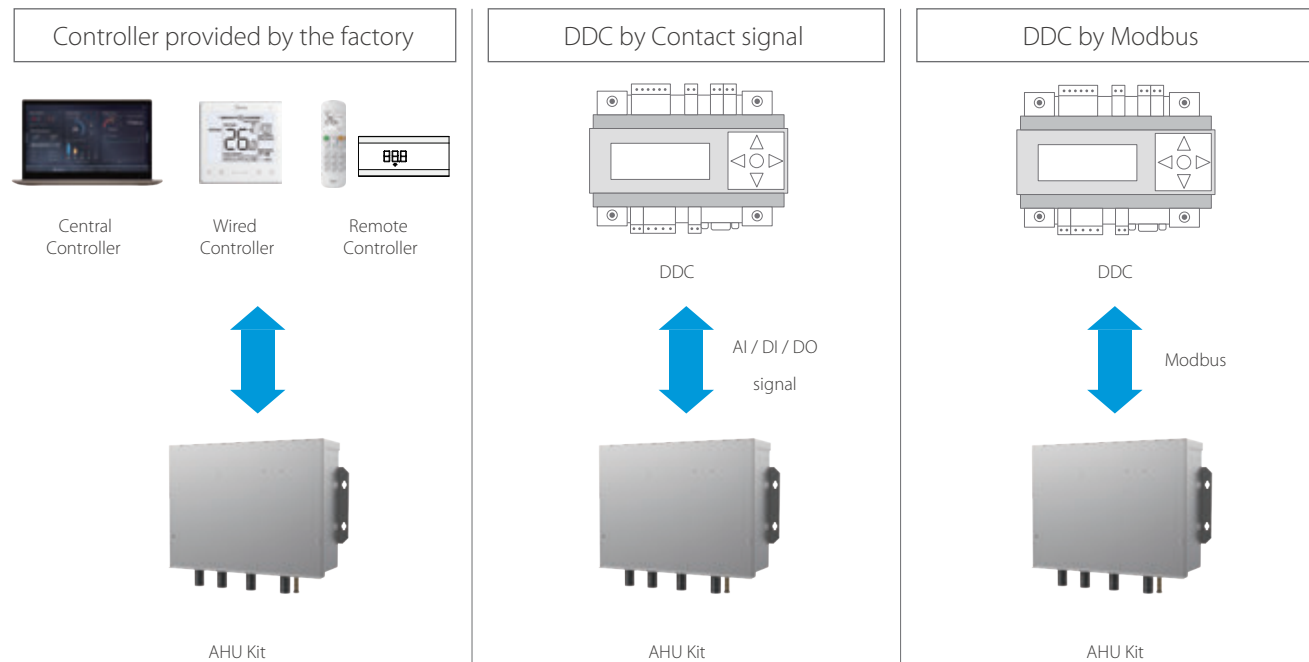


Diverse options for control

AHU Kit can be connected to multiple controllers, and can choose between factory controllers or DDC (third-party controllers), but only one can be selected. AHU Kit can directly connect to DDC and receive product control information through contact signals or Modbus protocol.

- Midea factory controller supported
- Direct wiring between DDC and AHU Kit
- Embedded digital I/O and analog inputs
  - Supports Modbus RTU

Note: For details, contact technical personnel.



Matchable controller type

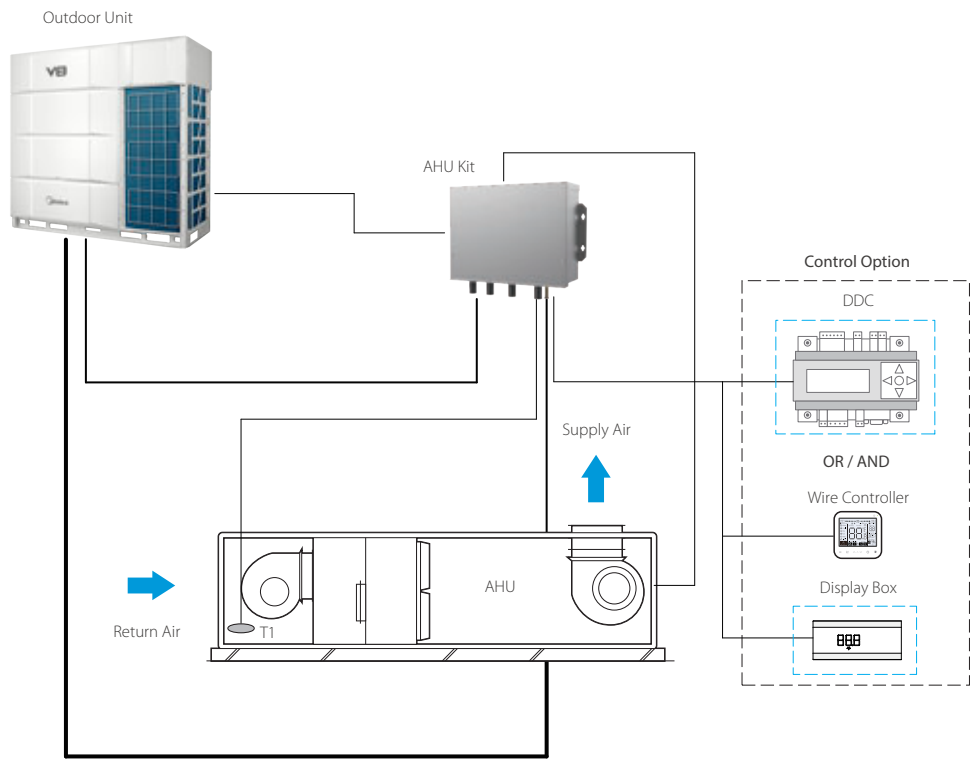
| Matching controller model |                  |
|---------------------------|------------------|
| Remote controller         | 12F1+Display box |
| Wired controller          | WDC3-86S         |
| Central controller        | IMMRPO II        |

Specifications

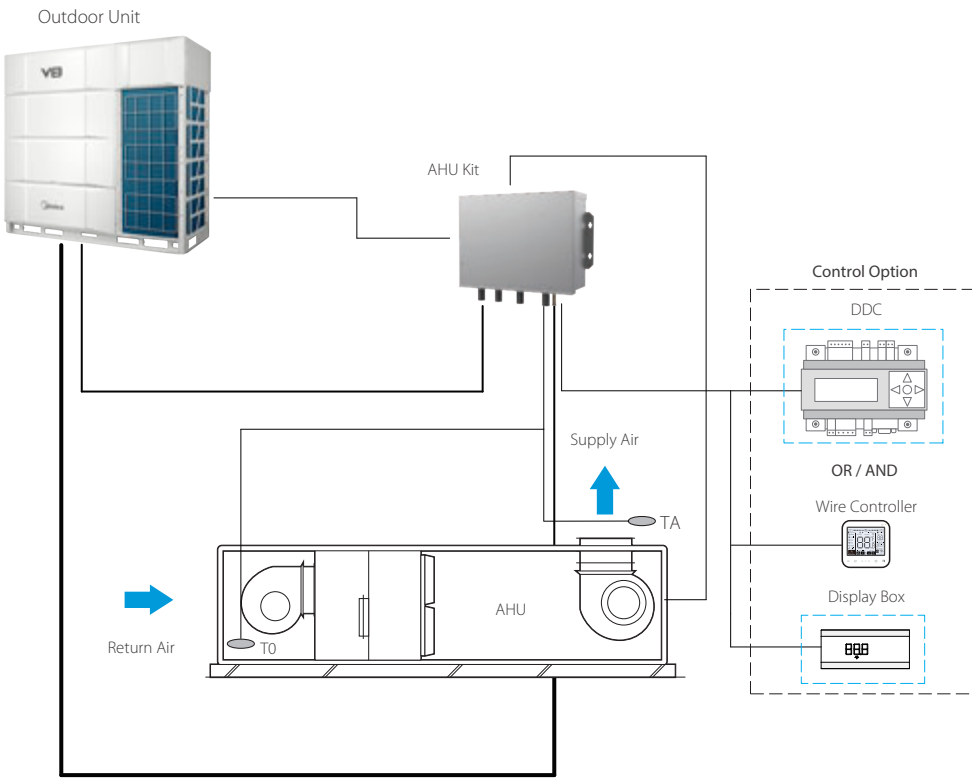
| Model name                             | AHUKZ-00F                                | AHUKZ-01F | AHUKZ-02F   | AHUKZ-03F   |
|----------------------------------------|------------------------------------------|-----------|-------------|-------------|
| Capacity A (kW)                        | 2.2≤A<9                                  | 9≤A≤20    | 20<A≤36     | 36<A≤56     |
| Power supply                           | 220-240V~50/60Hz                         |           |             |             |
| Liquid pipe (in/out) (mm)              | Φ8/Φ8                                    | Φ8/Φ8     | Φ12.7/Φ12.7 | Φ12.7/Φ12.7 |
| Dimension (WxHxD) (mm)                 | 479x134x384                              |           |             |             |
| Weight (kg)                            | 6.2                                      | 6.2       | 6.4         | 6.4         |
| Operation range (cooling on coil) (°C) | 17-43                                    |           |             |             |
| Operation range (heating on coil) (°C) | 5-30                                     |           |             |             |
| Applicable outdoor units               | Heat pump / heat recovery / cooling only |           |             |             |

Application (AHU Kit & Controller Module)

AHU Kit + Return Air Control



AHU Kit + Supply Air Control



T1: AHU indoor return air temperature sensor  
T0: AHU outdoor fresh air temperature sensor  
TA: AHU supply air temperature sensor

Note: For detailed installation and use requirements, please read the installation instructions.