1702-10V1609-EU

Commercial Air Conditioners **2017**




VRF Control System

GD Midea Heating & Ventilating Equipment Co., Ltd.
Is certified under the ISO 14001 International standard
for environmental management.
Certificate No.15912E10020R0L

GD Midea Heating & Ventilating Equipment Co., Ltd.
Is certified under the ISO 9001 International standard
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NO.01 100 019209

GD Midea Heating & Ventilating Equipment Co., Ltd.
Certificate of Occupational Health and Safety Management System
Certificate No. 15912S20006R0L-1.

Midea CAC After-service Application

iOS Version　Android Version

Midea CAC News Application

iOS Version

Commercial Air Conditioner Division

Midea Group

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Note: Product specifications change from time to time as product improvements and developments are released and may vary from those in this document.

Midea CAC

Midea CAC is a key division of the Midea Group, a leading producer of consumer appliances and provider of heating, ventilation and air conditioning solutions. Midea CAC has continued with the tradition of innovation upon which it was founded, and emerged as a global leader in the HVAC industry. A strong drive for advancement has created a groundbreaking R&D department that has placed Midea CAC at the forefront of a competitive field. Through these independent efforts and joint cooperation with other global enterprises, Midea has supplied thousands of innovative solutions to customers worldwide.

There are three production bases: Shunde, Chongqing and Hefei.

MCAC Shunde: 38 product lines focusing on VRF, Split Products, Heat Pump Water Heaters, and AHU/FCU.

MCAC Chongqing: 14 product lines focusing on Water Cooled Centrifugal/Screw/Scroll Chillers, Air Cooled Screw/Scroll Chillers, and AHU/FCU.

MCAC Hefei: 11 product lines focusing on VRF, Chillers, and Heat Pump Water Heaters.

Midea Company Introduction

Midea CAC Introduction

2014-2015 » Win FIFA World Cup Stadiums project in Brazil Beira Rio, Olympic Games Stadiums project in Brazil Rio de Janeiro and Africa games Stadiums project in Congo Brazzaville successively

2014 » Launched the All DC Inverter V5X globally, outstanding product performance helps Midea leading VRF market

2011-2014 » Launched the DC Inverter V4 Plus Series successively, complete product lines help Midea successfully enter the mainstream VRF market

2011-2012 » J.V. with Carrier LA and Carrier India successively

2009 » Launched the DC Inverter V4 globally

2008 » Developed DC inverter technology with Toshiba

2000-2001 » Cooperated with Toshiba and Copeland, enter VRF field

1999 » Entered the CAC field

CONTROL SYSTEMS

Wireless Remote Controllers
RM02
RM05
RM12

Wired Controllers
KJR-29B
KJR-90D
KJR-86C
KJR-10B
KJR-12B
KJR-120B
KJR-120C
KJR-27B

Centralized Controllers and Monitors
CCM30
MD-CCM03
MD-CCM09
KJR-90B
MD-CCM02

Network Control Software and Gateways
IMM Software & M-Interface
Data Converter CCM15
KNX Gateway MD-KNX
BACnet Gateway MD-CCM08
LonWorks Gateway LonGW64
Modbus Gateway CCM-18A

Accessories
Hotel Key Card Interface Module MD-NIM05/E
Infrared Sensor Controller MD-NIM09
3-Phase Protector
Digital Power Meter
Indoor Unit Group Controller KJR-150A
Remote Alarm Controller KJR-32B
Network Electricity Distribution Module MD-NIM10
AHU Control Box
Midea Outdoor Unit Diagnosis

CONTROL SYSTEMS

Wireless Remote Controllers

Auto mode | Dry mode | Heat mode | Cool mode | Fan mode | 24h Timer | Lock | Address setting | Follow Me

Auto Mode »

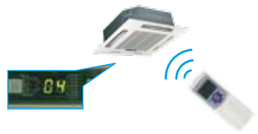
Auto mode automatically selects either cooling or heating mode based on the difference between the indoor temperature and the temperature setting.
Auto mode is only available for V4 Plus R Series, if it is used in heat pump system, the auto mode will only operate in cooling mode.

Background Light »

The background light allows users to operate the device in the dark. The device lights up when a button is pressed, and turns off when the selected operation is completed.

Address Setting »

In addition to the machine's auto addressing function, users can set the indoor unit's address on the wireless remote controller RM05/RM02.



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*.

* The follow me function is available on the RM02 remote controller.

Features

Model name	 RM02	 RM05	 RM12
Mode selection	●	●	●
Temperature setting	●	●	●
Fan speed control	●	●	●
Keyboard lock	●	●	●
Eco mode	●	●	–
Swing function	●	●	●
Air direction control	●	●	●
24hr timer	●	●	●
Clock display	–	●	●
Address setting	●	●	●
Follow me function	●	–	●
One-key 26°C	●	–	–
Background light	●	●	●

Notes:

1. The ECO function needs to match with the corresponding indoor units.
2. ● : available – : unavailable

Specifications

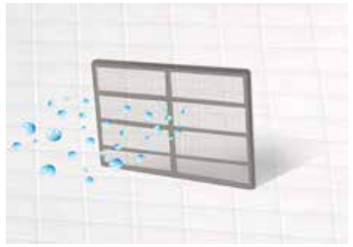
Model	RM02	RM05	RM12
Dimensions (H×W×D)(mm)	150×60×15	150×65×20	170×48×20
Batteries	1.5V(LR03/AAA)×2		

Wired Controllers

Auto mode | Dry mode | Heat mode | Cool mode | Fan mode | 24h Timer | Lock | Clean filter reminder | Address setting | Follow Me | Silent mode

Clean Filter Reminder »

The wired controller records the total running time of the indoor unit. When the accumulated running time reaches the value pre-set by the user, the system reminds the user to clean the indoor unit's filter, ensuring that the airflow does not become obstructed.



Silent Mode »

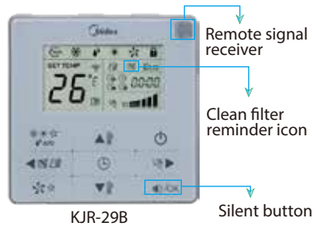
In cooling, heating and auto modes, selecting silent mode reduces the fan speed, lowering the running noise and creating a quieter environment.

Keyboard Lock »

The lock function can be used to prevent other people from using the controller.

Remote Signal Receiver »

A signal receiver is incorporated into the KJR-29B and KJR-90D controllers, allowing the system status to be adjusted using a remote control.



KJR-29B
(Touch key)

Address Setting »

KJR-29 and KJR-90D have an address setting function. Service personnel can set the address for the indoor unit for easy installation and future maintenance.

Follow Me »

With the follow me function, the indoor unit responds to the temperature measured by the temperature sensor built-in to the wired controller, rather than the temperature sensor in the indoor unit itself, so that temperature is measured closer to the user, rather than at ceiling or floor height*.

* The follow me function is available on the KJR-29B and KJR-90D wired controllers.

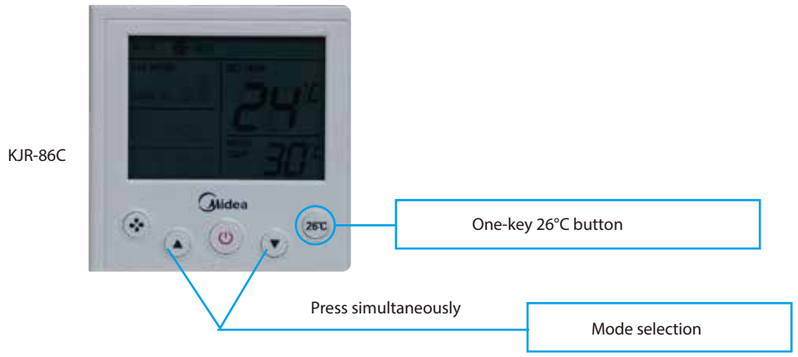
One-key 26°C »

KJR-86C has a one-key 26°C function. For saving energy and remaining comfortable, 26°C is the ideal temperature.

CONTROL SYSTEMS

User-Friendly Design »

The KJR-86C is a hidden-mode controller specially designed for hotels, hospitals, schools and offices. The operating mode is usually hidden, but may be toggled between cooling and heating modes by pressing the " ▲" and " ▼" temperature buttons simultaneously for three seconds.



Elegant Design »

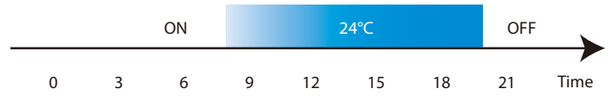
The KJR-86C and KJR-90D wired controllers are the same size as a standard household electrical socket. Fitted with a background light as standard, they are easy to use in the dark.

Auto Restart »

The system records running parameters such as on/off state, mode, fan speed, temperature setting, swing setting and controller lock status. Following a power outage, the system resumes operation with the same parameters as immediately prior to the outage.

Built-in Timer »

The built-in daily timer allows the system to be automatically started and stopped according to a user-defined daily schedule.

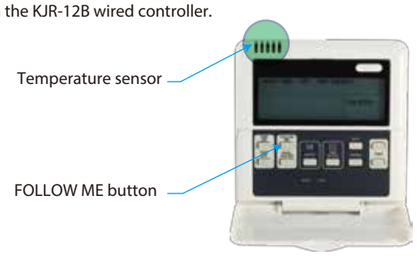


Indoor unit set to run in auto mode from 08:00 to 20:00

Follow Me »

With the follow me function, the indoor unit responds to the temperature measured by the temperature sensor built-in to the wired controller, rather than the temperature sensor in the indoor unit itself, so that temperature is measured closer to the user, rather than at ceiling or floor height*.

* The follow me function is available on the KJR-12B wired controller.

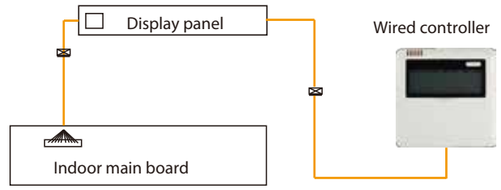


Addresses Setting »

The address setting function is coupled with easy installation and simple future maintenance. Service personnel can set the address for the indoor unit using KJR-10B, KJR-29B and KJR-90D.

Easy Connection »

The wired controller conveniently connects to the indoor unit's display panel via connecting wire.



KJR-120B

Auto Mode »

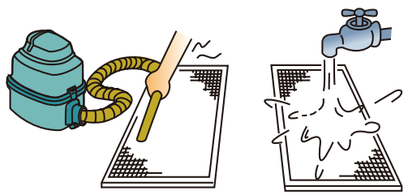
Auto mode automatically selects either cooling or heating mode based on the difference between the indoor temperature and the temperature setting.
Auto mode is only available for V4 Plus R Series, if it is used in heat pump system, the auto mode will only operate in cooling mode.

Error Reporting »

In the event of a malfunction, error codes are displayed in temperature setting area of the controller's display.

Clean Filter Reminder »

The wired controller records the total running time of the indoor unit. When the accumulated running time reaches the value pre-set by the user, the system reminds the user to clean the indoor unit's filter, ensuring that the airflow does not become obstructed.



Silent Mode »

In cooling, heating, and auto mode, silent mode reduces the running noise by setting the fan speed to low so you can enjoy peace and quiet while remaining comfortable.

Weekly Schedule Timer Wired Controller

KJR-120C

Simple Design »

The KJR-120C wired controller controls an indoor unit according to a user-defined weekly schedule. Its display shows the operating status of the indoor unit and is equipped with an LCD backlight to enable use in the dark.

Weekly Schedule Control »

The weekly schedule timer function allows users to set up to four scheduled periods per day for frequent adjustments. The Schedule feature allows you to program device behavior. If a device must follow a certain schedule, you can program the device to operate only at the scheduled times. Scheduled devices do not activate unless programmed to do so. They are centrally managed, significantly reducing energy consumption.

Delay Function »

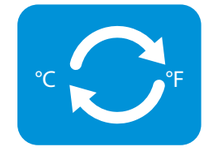
This function is specifically designed for people working overtime. Pressing the delay button postpones system shutdown by 1 or 2 hours.

Error Reporting »

In the event of a malfunction, error codes are displayed in temperature setting area of the controller's display.

°F/°C Switch »

Press the left-right and up-down buttons simultaneously for three seconds to switch between °F and °C.



°F/°C switch

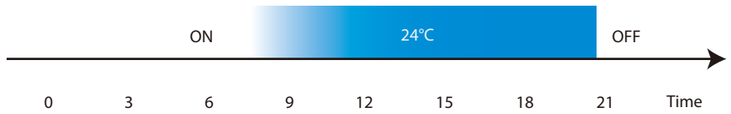
HRV Wired Controller

KJR-27B

The KJR-27B is specially designed for use with Midea's Heat Recovery Ventilator (HRV). Five operation modes are available: exhaust, air supply, bypass, heat exchange, and auto.

Built-in Timer »

A built-in daily timer offers the convenience of the HRV automatically starting/stopping at the times set.



Specifications »

Model	KJR-29B	KJR-90D	KJR-86C	KJR-10B	KJR-12B	KJR-27B	KJR-120B	KJR-120C
Dimensions (W×H×D) (mm)	120×120×20	86×86×16.5	86×86×18	120×120×15	120×120×15	120×120×15	120×120×20	120×120×20
Power supply	DC 5V (Supplied by indoor unit)							DC 12V by IDU

Features »

Model name	 KJR-10B	 KJR-12B	 KJR-29B	 KJR-90D	 KJR-86C	 KJR-120B	 KJR-120C
Fan speed control	●	●	●	●	●	●	●
Mode selection	●	●	●	●	●	●	●
Auto mode	—	—	—	—	—	●	—
Eco mode	●	●	—	●	—	—	—
Keyboard lock	●	●	●	●	—	●	●
Swing function	●	●	●	●	—	●	●
Background light	—	●	●	●	●	●	●
24hr timer	●	●	●	●	—	●	●
Clock display	●	—	●	●	—	●	●
Address setting	●	—	●	●	—	—	—
Remote signal receiver	—	—	●	●	—	—	—
Clean filter reminder	—	—	●	●	—	●	—
Follow me function	—	●	●	●	—	—	—
Silent mode	—	—	●	●	●	●	—
One-key 26°C	—	—	—	—	●	—	—
Indoor temperature display	—	—	—	—	●	—	—
°F/°C display	●	—	●	●	—	●	●
Weekly schedule timer	—	—	—	—	—	—	●
Delay function	—	—	—	—	—	—	●
Auto restart	●	—	●	●	●	●	●
Error reporting	—	—	—	—	—	●	●

Notes:

1. ECO function needs to match with the corresponding indoor units.
2. ● : available — : unavailable

CONTROL SYSTEMS

Centralized Controllers and Monitors

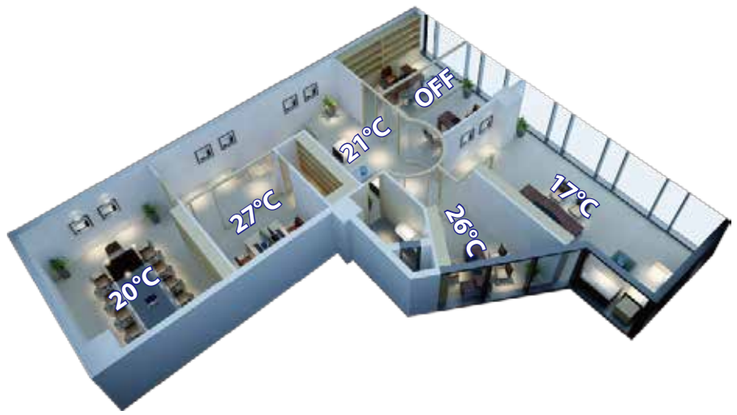
Indoor Centralized Controllers

CCM30
MD-CCM03
MD-CCM09

Swing | Heat mode | Cool mode | Fan mode | 24h Timer | Keyboard lock | Remote controller lock | Cooling lock | Heating lock | Dry mode | Weekly schedule | Clean filter reminder | Network access

Centralized Control »

Midea centralized controllers are multifunctional devices that can control up to 64 indoor units within a maximum connection length of 1,200m. Users enjoy the flexibility of either controlling multiple units as a group or assigning individual temperature settings to each unit.



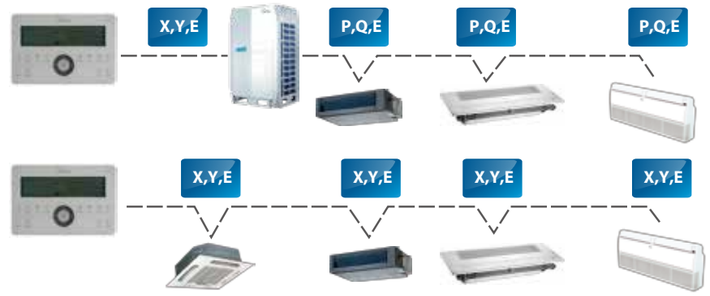
Multiple Lock Modes »

In addition to locking the centralized controller's own keyboard, the centralized controller may also be used to lock each unit's operating mode or remote controller.

Locking Running Mode | Locking Remote Controller | Locking Keyboard

Wiring Flexibility »

To simply and centralize wiring configurations, centralized controllers can be connected directly to the master outdoor unit*. Alternatively, controllers may be connected to the indoor units.



* If a controller is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.

Multi-system Control »

Ensure the address is not repeated. Units can be from different systems, with up to 64 indoor units. This greatly reduces system limitations.

* With 2-pipe systems, all the indoor units must operate in the same mode. With 3-pipe systems, the indoor unit operation mode may be set as required.

CONTROL SYSTEMS

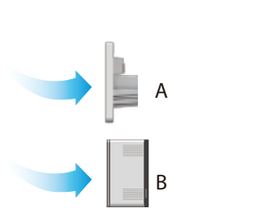
Clean Filter Reminder »

The CCM30 centralized controller records the total running time of each indoor unit. When the accumulated running time reaches the value pre-set by the user, the system reminds the user to clean the indoor unit's filter, ensuring that the airflow does not become obstructed.

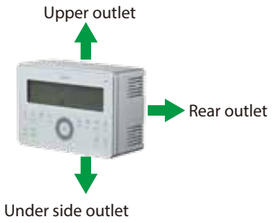
CCM30(Touch key)

Flexibility »

For installation flexibility, the CCM30 is available in two versions, either with or without a casing.



A: without casing; B: with casing



Wiring outlets on the B version

Stylish Design »

The stylish design of Midea's centralized controllers complements the interior ambience of high-specification homes and workplaces.

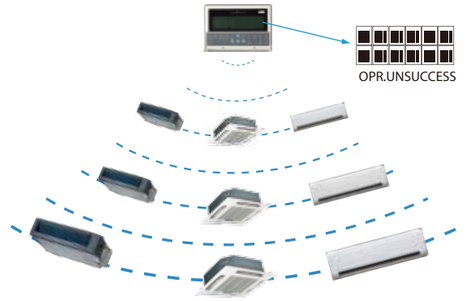
Weekly Schedule Control »

The MD-CCM09 centralized controller's weekly schedule timer function allows users to set up to four scheduled periods per day, each with its own operating mode and temperature settings, for up to 64 indoor units. The schedule can be applied to either a single indoor unit or all the indoor units.

	8:00	16:00	23:59
Sun	28℃	22℃	24℃
Mon	26℃	22℃ 17℃	23℃
Tue	26℃	22℃ 17℃	23℃
Wed	26℃	22℃ 17℃	23℃
Thu	26℃	22℃	26℃
Fri	26℃	22℃	26℃
Sat	28℃	off	24℃

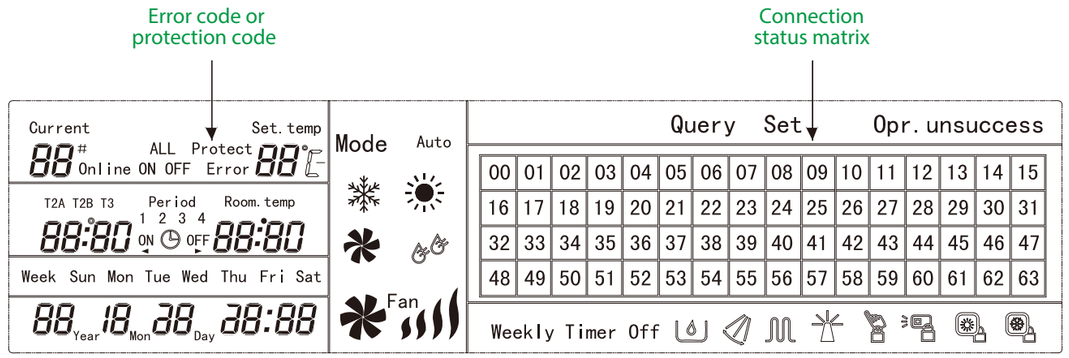
Single/Unified Control Mode »

Controllers can be toggled between unified and single control modes, to enable either unified control of all units or control of a specific unit. Operating mode feedback is used to ensure that all units are operating in the mode specified by the user.



Indoor Units Operating Status Display »

Error and protection codes are shown directly on centralized controllers' displays, avoiding the need to access outdoor units' PCBs to obtain codes during a system event. A wide range of error and protection codes provide system status information to building management professionals before contacting a service engineer.



Network Compatible »

The centralized controller can connect up to 64 indoor units on the network monitoring and building management systems.

* 1. If the indoor centralized controller is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.
2.Network access is available on the CCM30 and MD-CCM03 centralized controllers only.

CONTROL SYSTEMS

Features »

Model	 CCM30	 MD-CCM03	 MD-CCM09
Max. number of indoor units	64	64	64
Group control	●	●	●
Individual control	●	●	●
Fan speed control	●	●	●
Mode selection	●	●	●
Mode lock	●	●	●
Remote controller lock	●	●	●
Keyboard lock	●	●	●
Weekly schedule timer	–	–	●
24hr timer	●	●	●
Error reporting	●	●	●
All units start-up function	●	●	●
All units shut-down function	●	●	●
Background light	●	●	●
Swing function	●	●	●
Clean filter reminder	●	–	–
Parameter querying	●	●	●
BMS access	●	●	–

Notes:

● : available – : unavailable

Specifications

Model	MD-CCM03	CCM30	MD-CCM09
Dimensions (W×H×D) (mm)	179×119×74	180×122×78 and 180×122×68	179×119×74
Power supply	198-242V (50/60Hz)		

Unified On/Off Controller

The KJR-90B is a unified on/off controller that offers the ability to simultaneously turn on or off and select heating or cooling mode for multiple units using a simple panel control whilst also allowing each unit's on/off status can to be individually controlled.

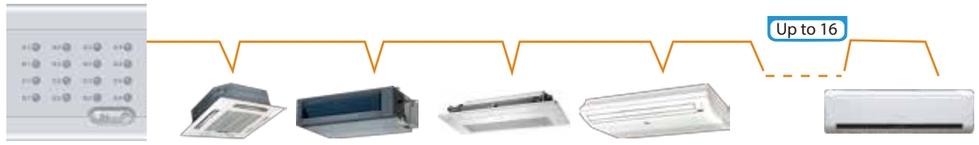
KJR-90B

Unified Control »

KJR-90B offers on/off and heating/cooling functions for indoor units based on preset temperatures to ensure easy management.

Centralized Control »

Up to 16 indoor units can be controlled through one KJR-90B.



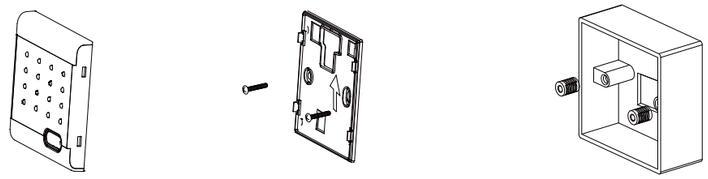
LED Indicators »

The LEDs on KJR-90B indicate indoor units' running status for easy fault detection. The lights switch off automatically to save energy once an action is completed. The indicators are as follows:

Light	Blue	Red	Flash
Individual unit on/off key	Cooling/Fan	Heating	Indoor unit error
Master on/off key			EEPROM error

Easy Installation »

KJR-90B can be easily mounted on the built-in cabinet:



Specifications

Model	KJR-90B
Dimensions (H×W×D)(mm)	90×86×8
Power supply	5V DC (Supplied by indoor unit)

Outdoor Unit Centralized Monitor

MD-CCM02

Query parameters

Power consumption

Protection/ Error codes

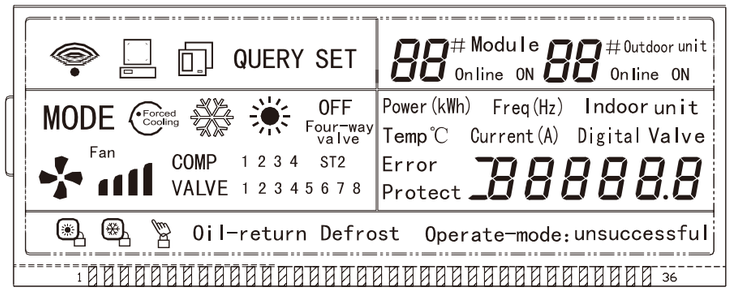
Communication by ODU

Communication by PC

Forced Cooling

Parameter Display »

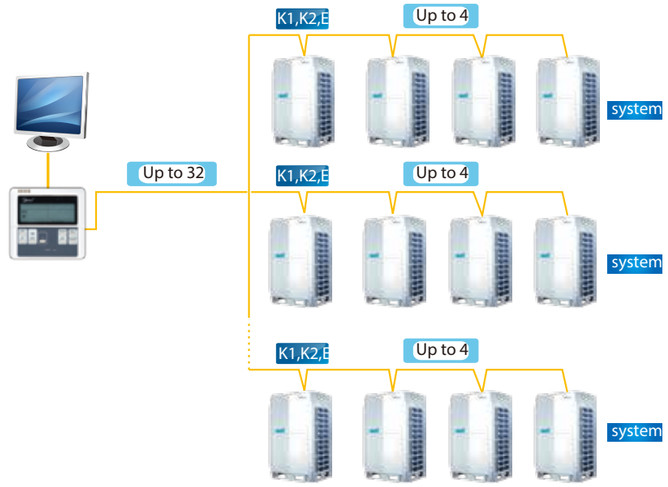
The MD-CCM02 Outdoor Unit Centralized Monitor enables users to easily check outdoor units' parameters including frequency, temperature, current and pressure, and also check outdoor units' protection and error codes.



Graph 2 LCD Screen

Access to Network Monitoring »

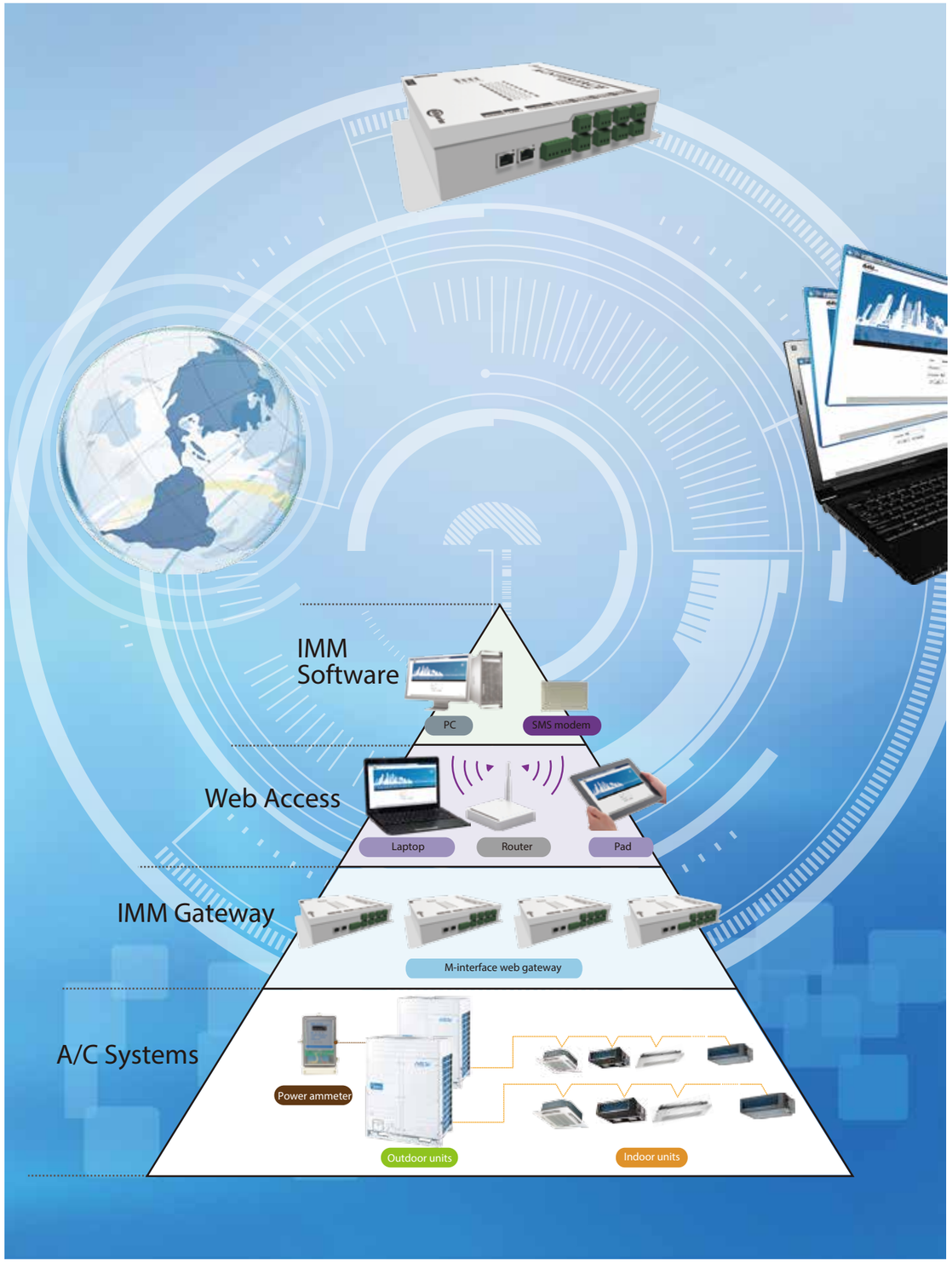
MD-CCM02 can connect up to 8 refrigerant systems and 32 outdoor units to the network system.



Specifications

Model	MD-CCM02
Dimensions (W×H×D) (mm)	120×120×15
Power supply	198-242V (50/60Hz)

Network Control Software and Gateways



Network Control Software and Gateways

IMM (Intelligent Manager of Midea)
Midea's Fourth Generation Network Control System

IMM software

M-interface Gateway

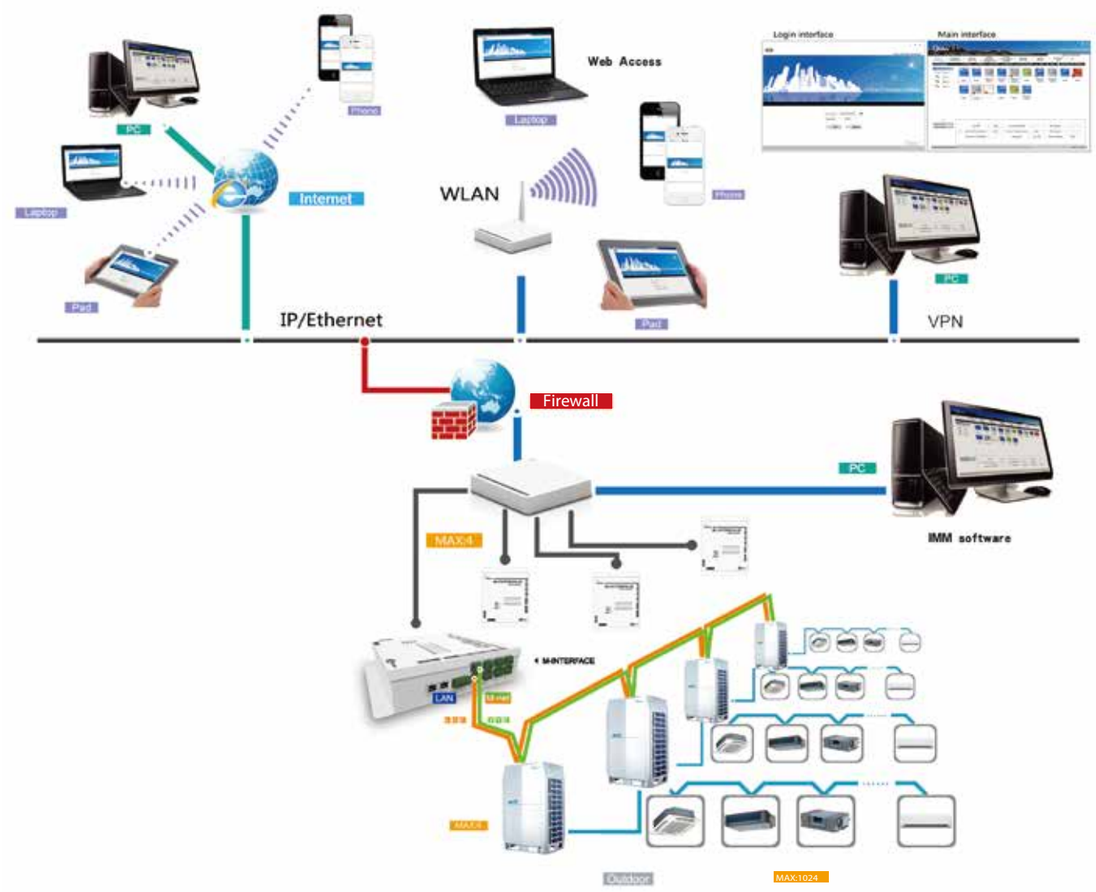
IMM, Midea's fourth generation network control system, is specially designed to control VRF systems. With a centralized system architecture, it monitors and controls all the parameters and functions of the VRF system. IMM's built-in flexibility suit it to building solutions that vary widely in scale, purpose and control schema.

Key Features »

- Up to 4 M-interface gateways, 64 refrigerant systems, 1,024 indoor units, and 256 outdoor units can be controlled by one PC
- User-friendly
- Web access for M-interface gateway
- Central building monitoring and control
- Energy management
- Zone management
- Warning message
- *SMS modem(optional)
- Electricity charge distribution
- Annual schedule management
- Low-load operation indicator
- Operational history reports (daily, weekly)
- Fault display
- Clean filter reminder
- Emergency stop and Alarm signal output
- Multiple languages

Web Access function | Energy Management | Schedule Management | Visual Navigation | Warning Message | Data Backup | Multiple Languages | Electricity Charge Distribution

Network Control »



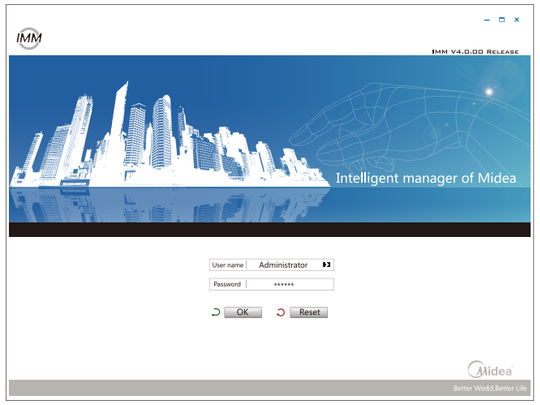
- Compatible with Windows XP 32 bit, Windows 7 32/64 bit and Windows 8
- Browser-based access on a PC, tablet computer or smart phone
- Remote access via VPN link to network allows anytime, anywhere monitoring and control
- Full support for access via IE, Firefox, Safari and Chrome

CONTROL SYSTEMS

Simple Operation and Management »

- Flexible and highly efficient centralized management system
- User-friendly 'click and operate' interface allows non-experts to easily run the building management system

Login interface



Main interface

Visual Schematic »

By importing floor plans into IMM and using the drag and drop interface to position the indoor units on the floor plan, users can create a tailored system schematic which enables monitoring and control of each unit's status and parameters through a clear visual representation of the system layout.

Web Access Function »

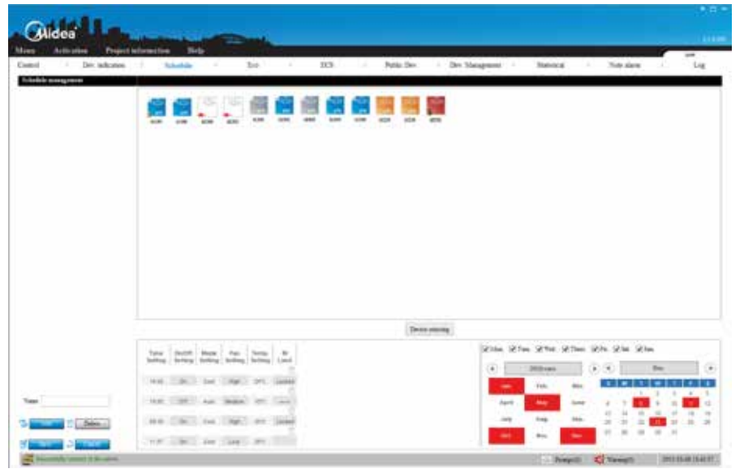
A PC, tablet computer or smart phone can be used for browser-based access to IMM via a LAN connection or VPN/WAN connection. Using a VPN link on a WAN enables remote anytime, anywhere access, allowing facilities management professiona to monitor and control Midea VRF systems whilst on business trips or working from home. Up to four registered users ma connect concurrently.

*WAN access needs to set up the VPN.

Schedule Management »

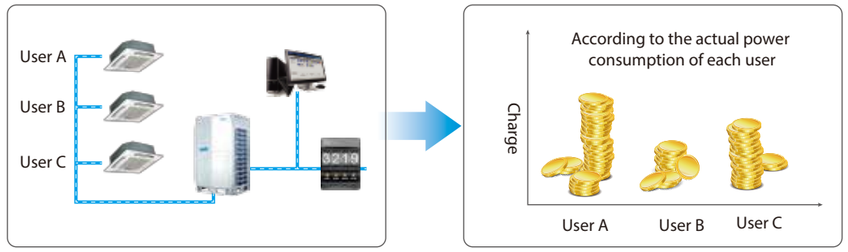
A daily or weekly schedule can be set to control the on/off status, operating mode, temperature setting and remote control lock status of each indoor unit.

- Daily/weekly task scheduling
- Individual schedules can be applied to each indoor unit
- Advanced energy conservation options



Electricity Charge Distribution (Patented) »

IMM uses the patented Midea Calculation Method to estimate the energy consumption of each indoor unit (or group of units) in order that air conditioning electricity charges can be equitably divided among building occupants. The Midea Calculation Method takes account of temperature setting, room temperature, return air temperature, operating mode, running time, refrigerant flow, indoor unit power rating and nighttime use to estimate the energy consumption of each indoor unit before apportioning the estimated energy consumption of units in public areas among building occupiers. Unit-by-unit electrical energy consumption data also greatly facilitates the optimization of energy consumption management.



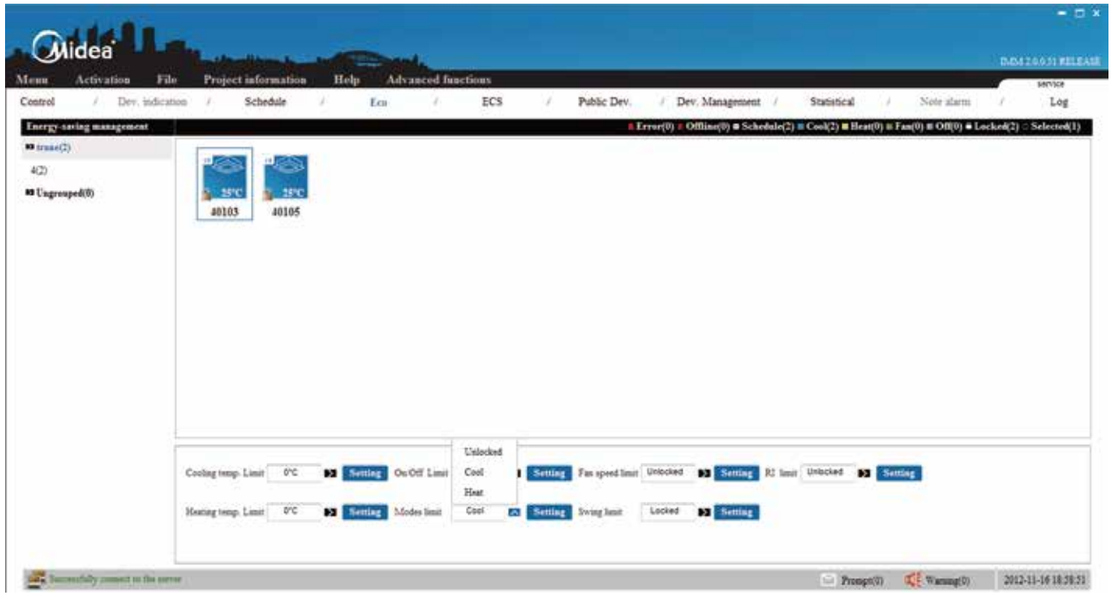
Energy Management »

Based on a predetermined schedule, the Intelligent Manager executes capacity control and intermittent operations on all air conditioning units to maintain a high comfort index.

User can set a limit on any running unit, any parameter, such as cooling temp., heating temp., fan speed, operation mode, and so on.

* 1. Meet with the <Public building energy efficiency management regulations>.

2. Matches the corresponding indoor units.



Automatic or Manual Network Configuration »

IMM offers a choice of automatic or manual network configuration.

Each M-interface gateway can support up to 4 refrigerant systems, 16 outdoor units and 256 indoor units.

Each M-interface gateway can support up to 16 refrigerant systems, 64 outdoor units and 256 indoor units.

Warning Message »

The system can receive error messages from air conditioning units in more than one building on public phone lines. If a particular factor influences normal operations, the system will send a message to technicians as an early warning.

*Requires the Midea "SMS Modem" to send automatic warning messages to designated phone numbers.

Zone Management »

Zones can be set up to enable the easy management of areas with differing heating/cooling requirements such as offices, restaurants, gyms and lobbies.

Data Backup »

Double data backup stored on the M-interface and IMM database.

The M-interface gateway automatically backs up power data for 1 or 2 months if a system failure occurs.

Examples: if there is a PC power failure or a system crash, the M-interface will automatically backup the data to the gateway.

IMM software also stores running data on the software database.

Multiple Language Options »

Nine languages are supported and can be selected by the user.

English
French
Italian
Russian
German
Spanish
Simplified Chinese
Polish
Korean

CONTROL SYSTEMS

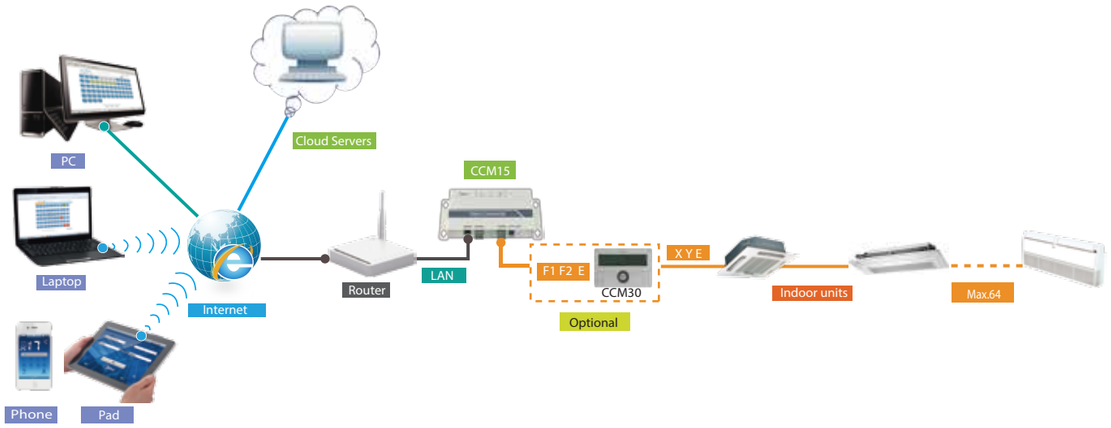
Data Converter

The cloud server controller enables remote control on the VRF system through the Internet.
Smart phones, tablets, laptops, and desktop PCs can serve as a web controller for up to 64 indoor units.

CCM15

Network Flexibility »

The CCM15 Data Converter can be connected directly to a network of indoor/outdoor units or, alternatively, via a CCM30 or MD-CCM03 centralized controller*.



* If the data converter is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.

Simple Control Interface »

Software control/ Cloud server control (WEB access).
Click & Operate: the user-friendly interface.
Allows single and group control.
Simplified user control interface.
Color indication and icons makes it easy to recognize unit status.
Includes a full-screen display, and allows temperature adjustment by swiping.

Weekly Schedule Control »

Users can set a weekly schedule either for specific units or for groups of units. Each day may be divided into multiple sections. The controller automatically controls each units' on/off status, operating mode and temperature settings according to the schedule.

Cloud Server Access »

Query and control a single unit or group.
Weekly schedule setting: can set multiple sections in each day for a single unit or group.
Group user control: you can use the same ID to manage hundreds of CCM15 when you select the As group user button on the login page.
Historical errors: easy service and management with a history error function.

Added Convenience »

The air conditioner can be remote controlled by a phone or tablet.
Query and control the running state of the A/C anytime, anywhere, and schedule queries and actions in advance.
Remotely turn off the air conditioner to avoid wasting power.

CONTROL SYSTEMS

BMS Integration »

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 four leading BMS protocols: BACnet, LonWorks, Modbus and KNX.

MD-KNX

KNX Gateway

Full Integration »

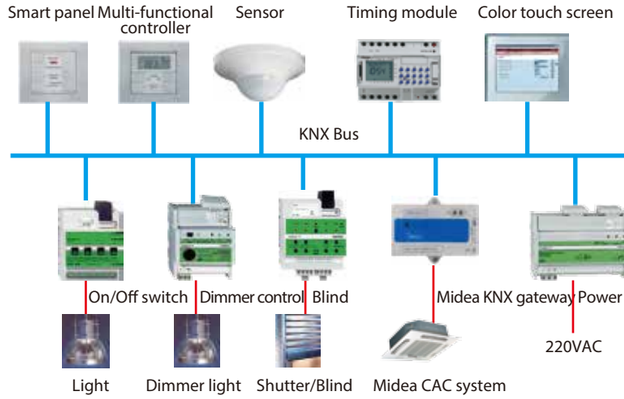
Midea's MD-KNX KNX Gateway enables full integration of Midea VRF systems with home and building management systems built on the KNX network communications protocol.

Key Features »

- Compatible with all Midea VRF products
- External power not required
- Full KNX compatibility, configured using ETS
- Multiple parameters can be set
- Easy to install - connects directly with indoor units using RS485
- Connects directly to the KNX bus
- KNX certification

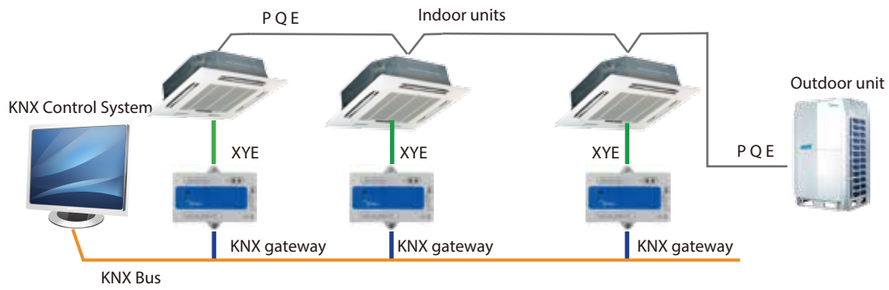
Broad Integration »

Being compatible with the KNX protocol means that Midea's VRF air conditioners can be integrated into control systems alongside the wide range of KNX compatible products that are available.



Electrical Wiring »

One gateway can be connected to one indoor unit, and it only can be connected to indoor unit's XYE ports.



MD-CCM08

BACnet® Gateway

Full Integration »

Midea's MD-CCM08 BACnet Gateway enables full integration of Midea VRF systems with control networks build on the BACnet communications protocol, allowing Midea VRF systems to be monitored and controlled alongside other building management technology that use the BACnet protocol such as access control, fire detection and lighting systems.

Key Features »

- Precise and efficient monitoring and control of Midea VRF systems
- Connects up to 256 indoor units or 128 outdoor units to the BMS
- Choose whether or not to connect to the BMS
- Built-in IP access function
- BTL certification

● Control

— Operating mode
— Temperature setting
— Fan speed
— Swing
— Remote controller lock

● Monitor

— Operation mode status report
— Set temperature status report
— Fan speed status report
— RC locking status
— Online quantity
— Timer status
— Error status
— Room temperature display

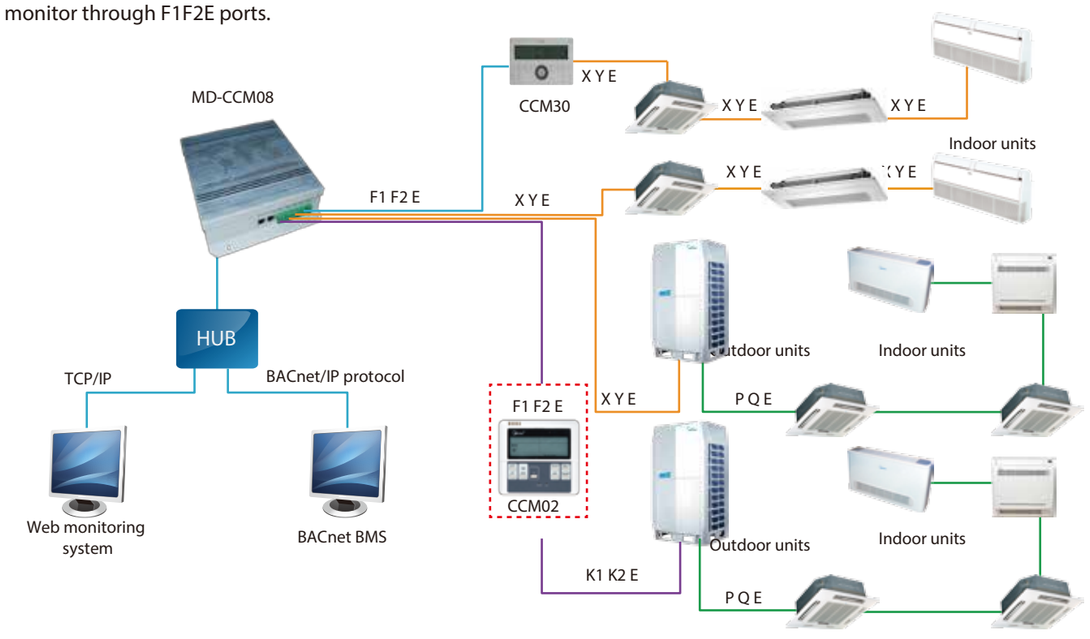
*For more information, refer to the product object table.

Network Access »

MD-CCM08 allows users to track units' running status and change their running parameters on Internet Explorer for maximum control convenience.

Network Flexibility »

The gateway can be connected either to an indoor unit's XYE ports or an outdoor unit's XYE or K1K2E ports*.
It is also compatible with connection to an MD-CCM03 centralized controller or an MD-CCM02 centralized outdoor unit monitor through F1F2E ports.



* If the gateway is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.

Wide Compatibility »

The MD-CCM08 is fully compatible with a wide range of leading building management systems.

	Company	BMS software	Brand
1	SIMENS	APOGEE	
2	TRANE	Tracer Summit	
3	Honeywell	Alerton	
4	Schneider	Andover	
5	Johnson	METASYS	

Specifications

Model	MD-CCM08
Dimensions (HxWxD)(mm)	319×251×61
Power supply	AC 220V~50/60Hz

CONTROL SYSTEMS

LonGW64

LonWorks® Gateway

Full Integration »

Midea's LonGW64 LonWorks Gateway enables full integration of Midea VRF systems with Echelon Corporation's LonWorks control platform, ensuring that Midea VRF systems can be monitored and controlled alongside other building management technology on the LonWorks platform such as security, fire safety and lighting systems.

Key Features »

- Up to 64 indoor units can be connected with each gateway
- Easy to install

● Control

– Operating mode

– Temperature setting

– Fan speed

● Monitor

– Operation mode status report

– Set temperature status report

– Fan speed status report

– Online/offline status

– Online quantity

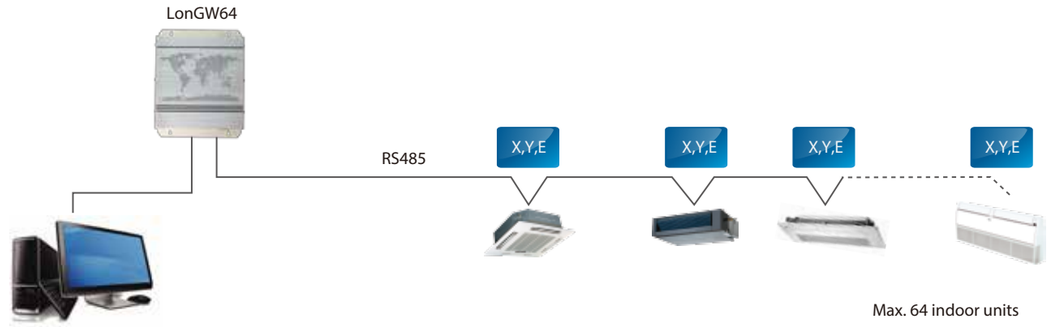
– Error status

– Room temperature display

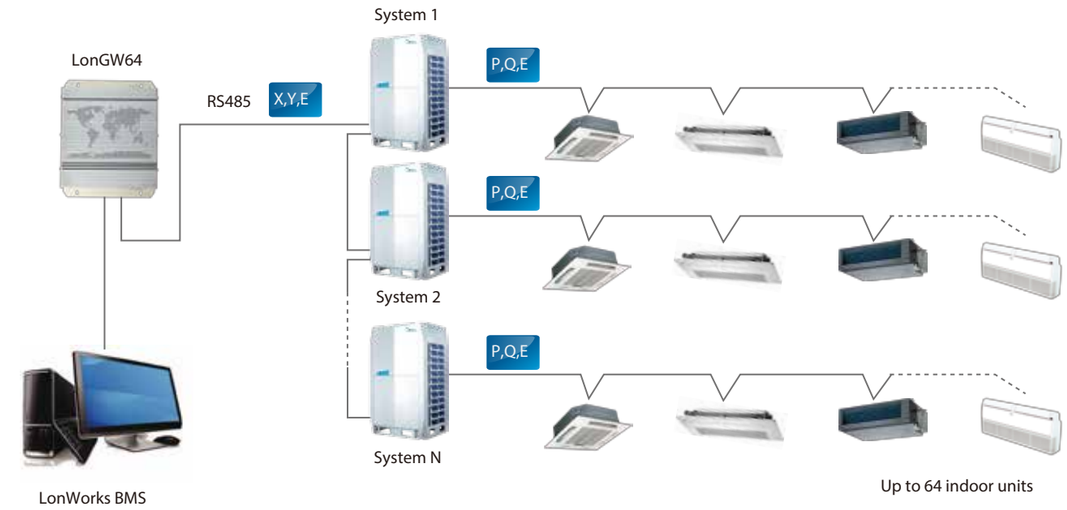
*For more information, refer to the product network's variable charts.

Network Flexibility »

- Connection method 1: Connects to indoor unit's XYE ports.



- Connection method 2: Connects to outdoor unit's XYE ports*.



* If the gateway is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.

Specifications

Model	LonGW64/E
Power supply	AC 220V~50/60Hz
Dimensions (HxWxD) (mm)	319×251×61

CONTROL SYSTEMS

Modbus® Gateway

CCM-18A/N
CCM-18A/N-U

Full Integration »

Midea's CCM-18A/N and CCM-18A/N-U Modbus Gateways enable seamless connection of Midea VRF systems with building management systems built on the Modbus communication protocol.

Key Features »

- Connects up to 16 indoor units (CCM-18A/N-U) or up to 64 indoor units and up to 4 outdoor units (CCM-18A/N)*
- Connects to BMS through either TCP/IP or RTU
- Built-in IP access function

*The four outdoor units must be in the same system

- **Control**
  - Operation mode
  - Temperature setting
  - Fan speed

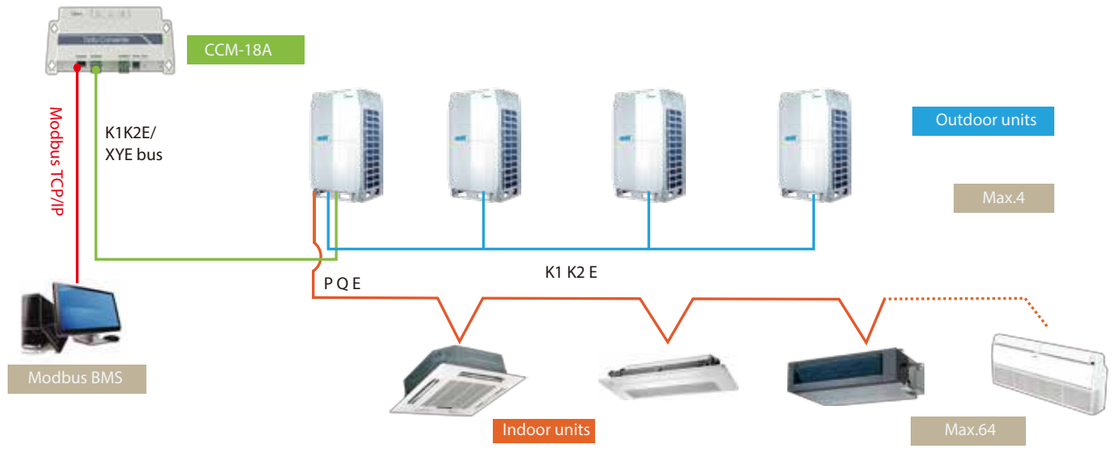
- **Monitor**
  - Online/offline status
  - Operation mode
  - Temperature setting
  - Room temperature
  - Fan speed
  - Remote control lock statu
  - Timer status
  - Error status

Network Access »

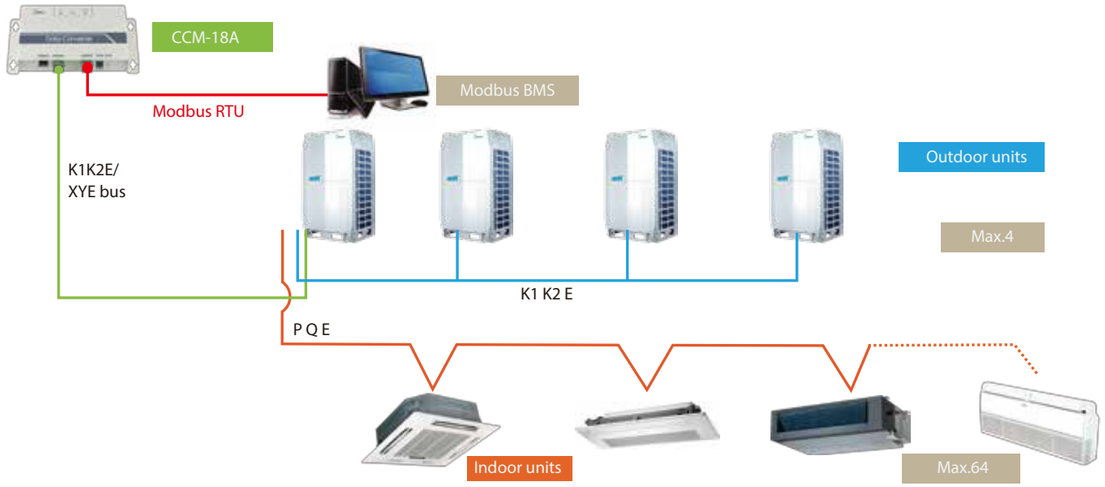
When the Modbus network is set, users can conveniently configure their A/C network system online using different TCP/IP browsers.

Network Flexibility »

- TCP connection method



- RTU connection method



* If the gateway is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.

Specifications

Model	CCM-18A
Dimensions (HxWxD)(mm)	319×251×61
Power supply	AC 220V~50/60Hz

CONTROL SYSTEMS

Accessories

Hotel Key Card Interface Module

MD-NIM05/E

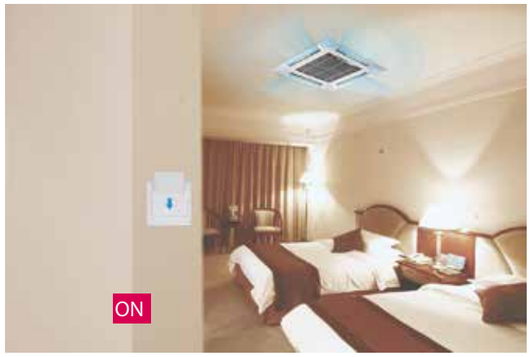
MD-NIM05B/E

Key Features »

- Specially designed for hotel guest rooms
- Simple, compact, and easy to operate
- Built-in auto restart function
- Compatible with remote and wired controllers

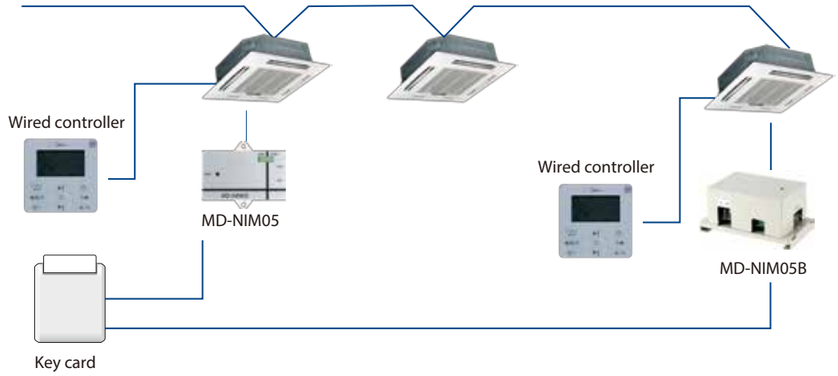
Auto Restart »

When the key card is inserted, the unit is activated and the guest may use the remote or wired controller to adjust the air conditioning settings. When the key card is removed, the interface module records the unit's settings and then, when the card is re-inserted, the unit is restarted with the previously recorded settings.



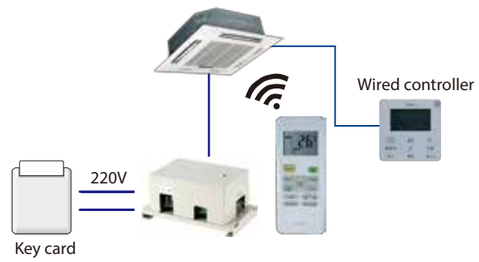
Network Schematic »

Easy installation and remote controller or wired controller can control indoor units.



The MD-NIM05/E works in conjunction with a high voltage relay.

The MD-NIM05B/E can be connected directly to the hotel card slot system (AC 220V) without the need for a high voltage relay.



Specifications

Model	MD-NIM05/E	MD-NIM05B/E
Dimensions (H×W×D) (mm)	15.5×86×72.8	87×150×70
Power supply	DC 5V (Supplied by indoor unit)	AC 220V

CONTROL SYSTEMS

Infrared Sensor Controller

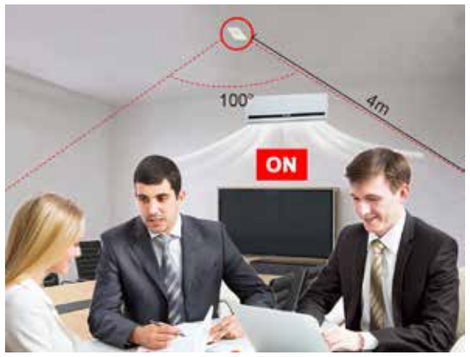
Using infrared sensors to detect movement, the MD-NIM09 Infrared Sensor Controller automatically turns indoor units on or off upon sensing that the room is occupied or unoccupied. Suitable for hotels, offices, conference rooms and residences, the Infrared Sensor Controller ensures climate control whilst minimizing energy consumption.

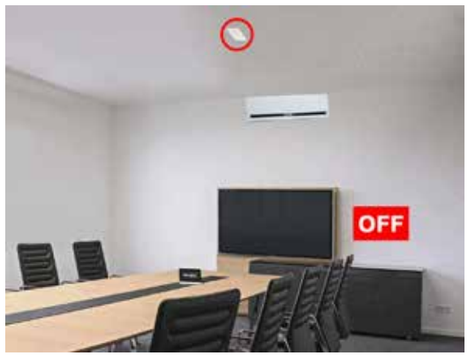
- Automatically extends shut down time to avoid frequent on/off actions
- Simple design discretely blends in with hotel, office or apartment complex decors

MD-NIM09

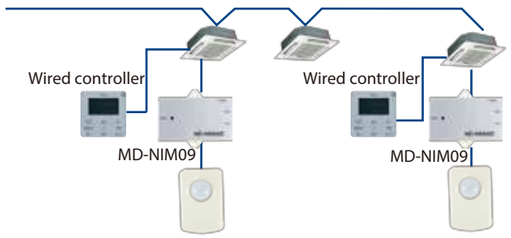
Flexibility »

The sensor may be fixed either to a wall or a ceiling, providing flexibility to tailor the arrangement of sensors to the particular geometry of any space. Users may additionally use remote or wired controllers to adjust the air conditioning settings.

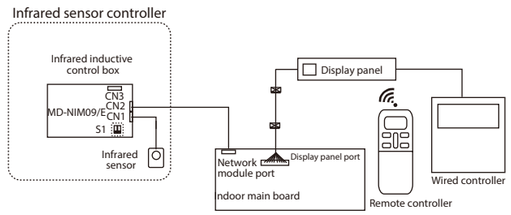




Installation Schematic »



Electrical Wiring »



Specifications

Model	MD-NIM09
Dimensions (H×W×D)(mm)	Sensor 46×30×25.6, Control box: 86×72.8×15.5
Power	DC 5V (Supplied by indoor unit)

3-Phase Protector

The HWUA and DPB71CM48 3-phase protectors automatically distinguish and respond to abnormal power supply conditions, taking protective action to avoid damage to outdoor unit compressors.

HWUA DPB71CM48

High Reliability »

The protector protects the entire system from power supply problems, and auto restarts after recovery.

Specifications

Model	With over/under voltage function				Without over/under voltage function
	HWUA	DPA53CM23	HWUA	DPB71CM48	DPA51CM44
Power supply	220~480V-3N 50/60Hz	208~480V-3N 50/60Hz	220~480V-3N 50/60Hz	380~480V-3N 50/60Hz	208~480V-3N 50/60Hz
Temp. range	-20°C~50°C	50Hz: -20°C~60°C 60Hz: -20°C~50°C	-20°C~50°C	-20°C~50°C	50Hz: -20°C~60°C 60Hz: -20°C~50°C
Rated operational power	2.9 VA	7 VA	2.9 VA	13 VA	13 VA
Over voltage	12%	12%	18%	18%	/
Under voltage	-12%	-12%	-12%	-12%	
Phase imbalance	8%	/	8%	8%	
Dimensions(W×H×D)(mm)	90×69×35	81×67.2×17.5	90×69×35	81×67×35	81×67.2×17.5

Digital Power Meter

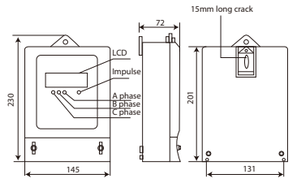
The DTS634 and DTS636 digital energy meters can be fitted to outdoor units (on a one meter per unit basis) to measure power consumption.

DTS634
DTS636

Low Power Consumption »

The digital power meter consumes minimal energy.
Voltage circuit: less than 2W/10VA
Current circuit: less than 2.5VA

Installation Schematic »



The digital power meter is tested after manufacture so it can be immediately deployed and used on-site. The LED indicators and installation schematic are shown in the figure on the left.

Specifications

Model	DTS634/DTS636
Dimensions (H×W×D)(mm)	230×145×72
Power supply	200V-500V(50/60Hz)

CONTROL SYSTEMS

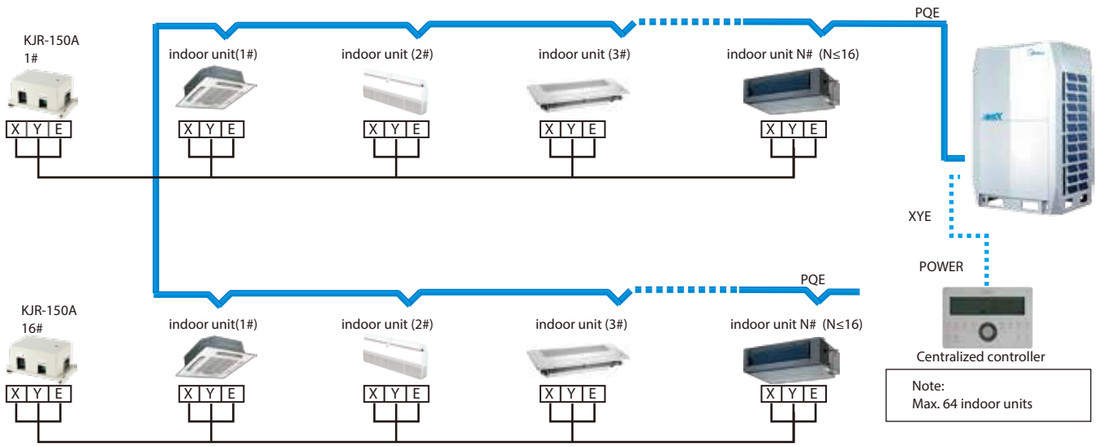
Indoor Unit Group Controller

KJR-150A

Unified Control »

The KJR-150A Indoor Unit Group Controller enables simultaneous control of a group of up to 16 indoor units from a single wired or remote controller. Each unit's operating parameters can also be individually controlled using its own remote controller.

System Schematic »



Specifications

Model	KJR-150A
Dimensions (HXWXD)(mm)	85X150X70
Power supply	198-242V(50/60Hz)

Remote Alarm Controller

KJR-32B

Simple Design »

When connected to an alarm device, the KJR-32B Remote Alarm Controller activates the alarm (and flashes its own LED indicator) if an outdoor unit system abnormality occurs.

Specifications

Model	KJR-32B
Dimensions (H×W×D)(mm)	85X150X70
Power supply	198-242V(50/60Hz)

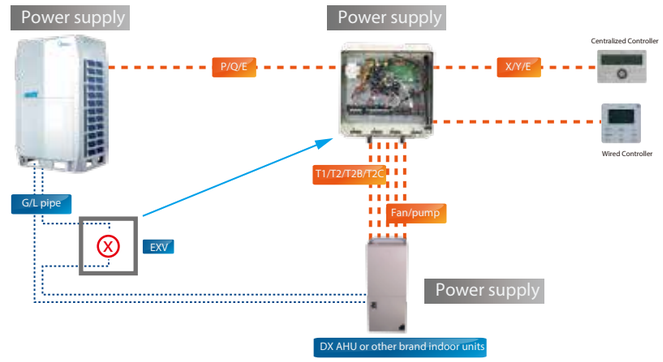
AHU Control Box

AHUKZ-01A AHUKZ-01B
AHUKZ-02A AHUKZ-02B
AHUKZ-03A AHUKZ-03B

Interoperability »

AHU Control Boxes can be used to connect VRF outdoor units with direct expansion air handling units or compatible other-brand AC fan motor indoor units, giving flexibility to adapt to the specific needs of each large project. Up to four B Series AHU Control Boxes can be linked together; A Series boxes operate independently. (Note that AHU Control Boxes are not compatible with V4+R or V5 series VRF systems).

System Schematic »



Specifications

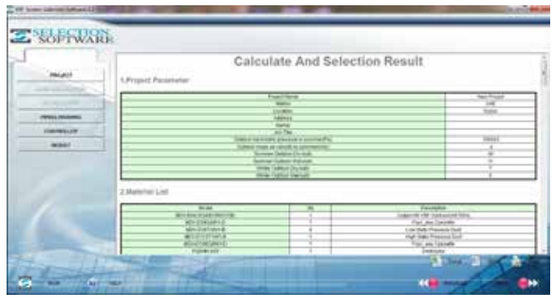
Model	AHUKZ-01A/AHUKZ-02A/AHUKZ-03A
	AHUKZ-01B/AHUKZ-02B/AHUKZ-03B
Dimensions(H×W×D)(mm)	335×375×150
Power supply	220-240V~ 50Hz 208-230V~ 60Hz

Selection Software

Midea's advanced design automation tool, which is available as an AutoCAD add-in or as a stand-alone Windows executable, can be used by designers, consultants and distributors to greatly reduce the time and effort that must be devoted to the selection process. The software provides quick and convenient selectable options for users, supports multiple languages, and greatly improves the selection process.

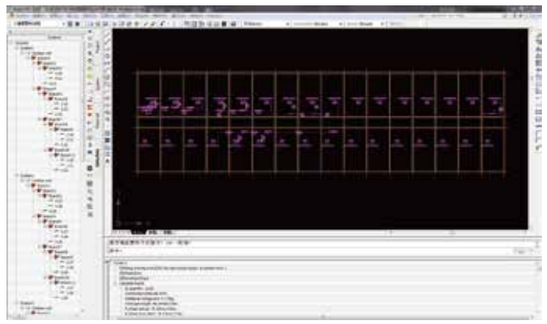
Windows Version »

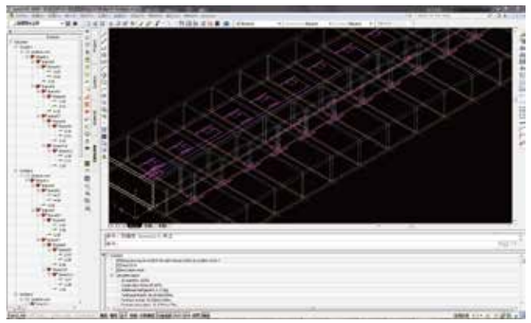
The Windows version provides distributors' sales team with a comprehensive selection of system design reports and calculations. Load calculations may be on either an initial estimate basis or detailed room-by-room basis. Based on the indoor units, outdoor units and controllers selected, the software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



CAD Version »

The CAD version is an AutoCAD add-on software, it automatically calculates required refrigerant/drain piping sizes, refrigerant charge requirement and branch joint configuration based on the cooling/heating requirements specified. The software checks that designs comply with local installation regulations and automatically produces piping installation diagrams, equipment lists and quotations.





Mobile Applications

Midea CAC News App »

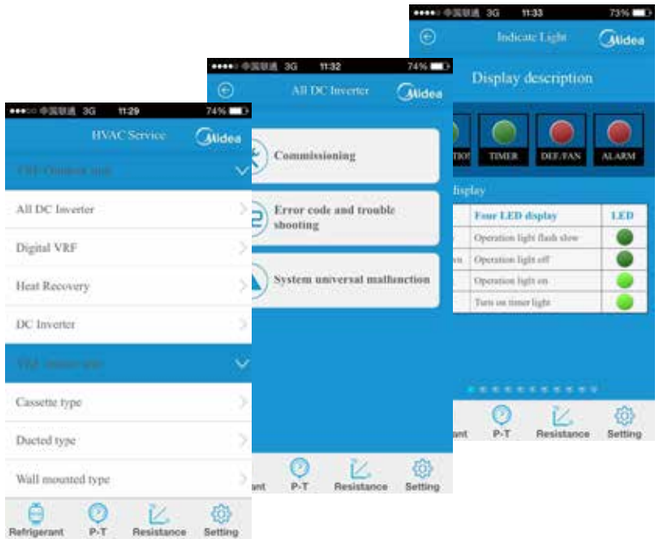
The Midea CAC News app is Midea CAC's mobile platform for sharing news, product information and training schedules.

Midea CAC News Application

iOS Version

Midea CAC After-service App »

The Midea CAC After-service app is a very useful tool for engineers during commissioning, refrigerant charging and troubleshooting.



Midea CAC After-service Application

Android Version

iOS Version