



Climate Solutions for Green Environments

# Midea CAC

## Company Profile

Midea Group / Midea CAC / Product and Solution / Marketing /Project solutions /Reference Projects



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## Mission and vision



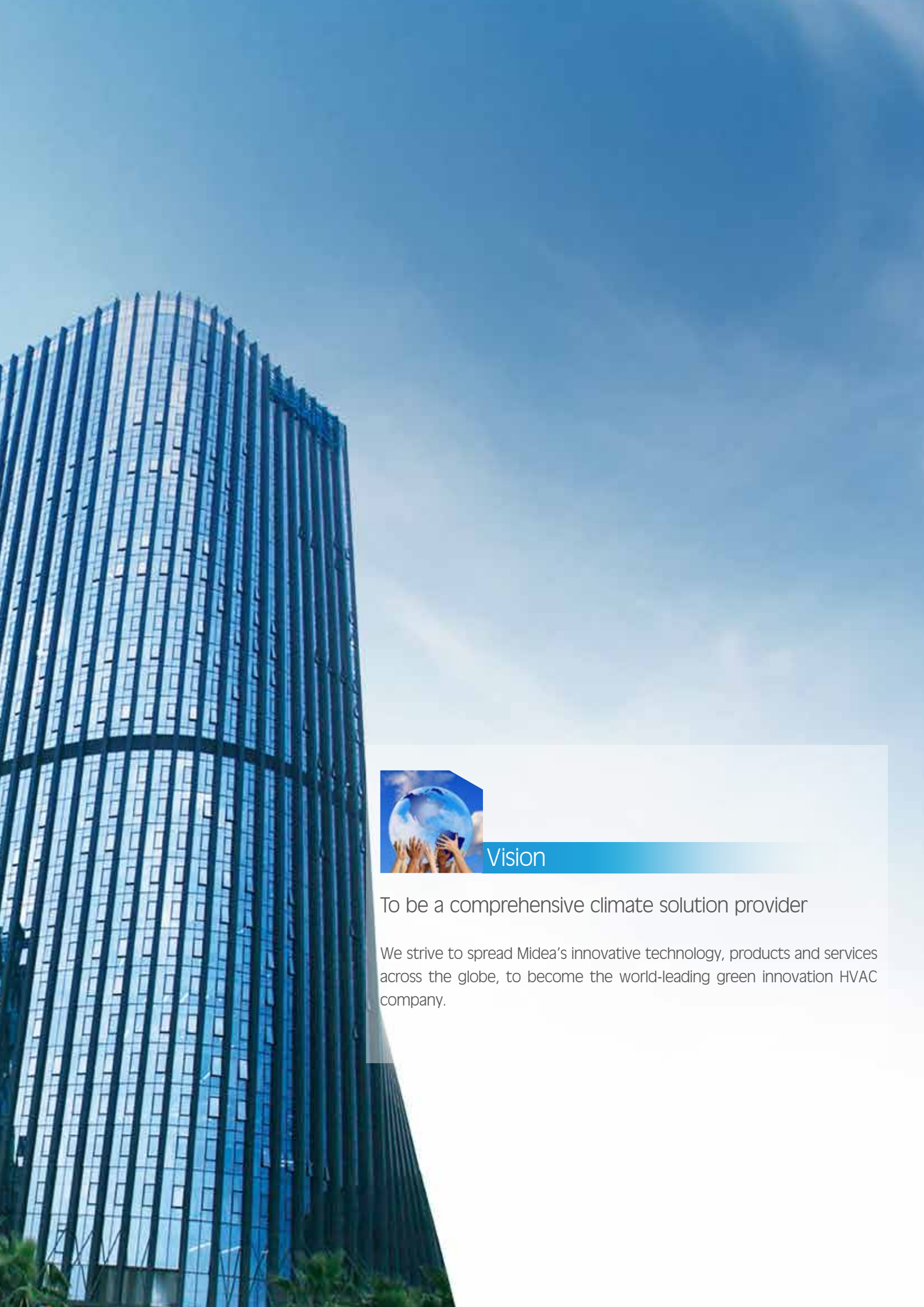
### Mission

#### Creating a Better Life for Humanity

We incorporate the environment philosophy throughout all aspects of cooperate activities. We facilitate the harmonious development among human beings, the nature and the society through the creation of value for customers, the creation of opportunity staff, the creation of profit for shareholder and the creation of wealth for the society. Together we create a green and happy living environment for all human beings.







## Vision

To be a comprehensive climate solution provider

We strive to spread Midea's innovative technology, products and services across the globe, to become the world-leading green innovation HVAC company.

## 2 Message from Presidents



First I would like to thank everyone for the support and interest to Midea central air conditioner (CAC) business.

In 1999, we entered the central air conditioning business. We have cooperated with Copeland Emerson, Toshiba, Carrier and Toshiba-Carrier for the technology improvement and business expansion. Ten years as one day, Midea is keeping devoting to the product R&D and process. Plenty of products with independent intellectual property right which representing the highest technical level in this industry. Today, we are one of the most comprehensive international HVAC&R equipment supplier and we have already set up a complete R&D, product manufacturing, quality control and after service system.

Thanks to the innovative corporate culture, harmony coordination between all the departments, the good relationship of upstream and downstream suppliers and the rigorous working attitude to the quality control, we have become a competitive and professional HVAC&R product manufacture in the world.

According to the trend of technology development as well as the shift of business mode between economy and industry, Midea CAC is accurately to seize the opportunity for the business growth. In 2013, we have launched the biggest capacity 2200Ton falling film type centrifugal chiller with the highest efficiency in this industry. The V5X all DC inverter VRF with the biggest combination capacity 88HP is the largest one in the world. In these ten years we achieved good response from the market by the stable operation, high efficiency and convenient serviceability. These technology innovations help us on greenhouse gas reduction, product energy efficiency improvement and also improve the global environmental issues. We believe the powerful product capability and always being able to satisfy the customer need are the best way to win in the serious competition. On the other hand, a new age of product customization is coming. As a commercial air conditioner solution supplier in the market we are more and more focus on the market demand and provide the customized product to all the clients. It requires our R&D and manufacturing more flexible. It requires our marketing team and sales team together with the clients and gets more valuable suggestion from the clients.

At last, I would like to express my thanks to all of you for your continual support and encouragement in our endeavor to create a better and prosperous future to our CAC business.

President  
Mingli Tian

Thanks very much to be with us for the Midea CAC oversea business.

In 2013, Midea CAC oversea business unit fixed the professional way to the channel construction by cultivating our distributors (agents) and together with them to promote our products. We make big progress in many countries and grow together with our distributors and solutions. The total sales revenue increase 30% compare with 2012 despite the global economic recession. In many fields we have set up many good reference projects such as education facility, hotel and commercial building, hospital and health care enter and other supper size projects like air port and transport stations. We have installed our VRF product in the Beira-Rio Stadium for the coming 2014 FIFA world cup.

Right now, we have the widest product line up in the world. We are the most comprehensive CAC equipment supplier in the industry from package units, VRFs and chiller products. What we are doing now is improving our service capability to the clients. We are making our team more professional and fast responding in marketing, selling, logistical and technical service. We will more concentrate on the detail on the product and service to make us more competitive in the market.

In the next 3 to 5 year our strategy on the market is cultivating core distributor (agency). We are investing together with them on the marketing, team construction, project operation and professional channel developing. We have two marketing platforms for Midea partners. One is MDV Elite Camp which is a marketing and sales training for all the sales managers and sale engineers. In this platform we will share all the market and technical knowl



edge to our distributor' s team and also collect the market information and advice from them to improve our inner service. Another platform is MDV Elite Camp which is helping the distributor to enter to the professional sales channel from design engineers, consultant company, HVAC&R institution and other organization.

Looking forward to the future, we will pay more attention to the technology innovation, service improvement and always consistently maintain in all market-oriented, to collaborate with our client to develop the business together.

Lastly, I have to express my heartfelt thanks again and thanks very much for your continual support.

Vice President  
Peter Guan









## Company Introduction

3.1 Midea Group

3.2 Midea Central Air Conditioner (MCAC)

3.3 Four Departments In Midea CAC Division

3.4 CAC Manufacture Base

3.5 Quality Control

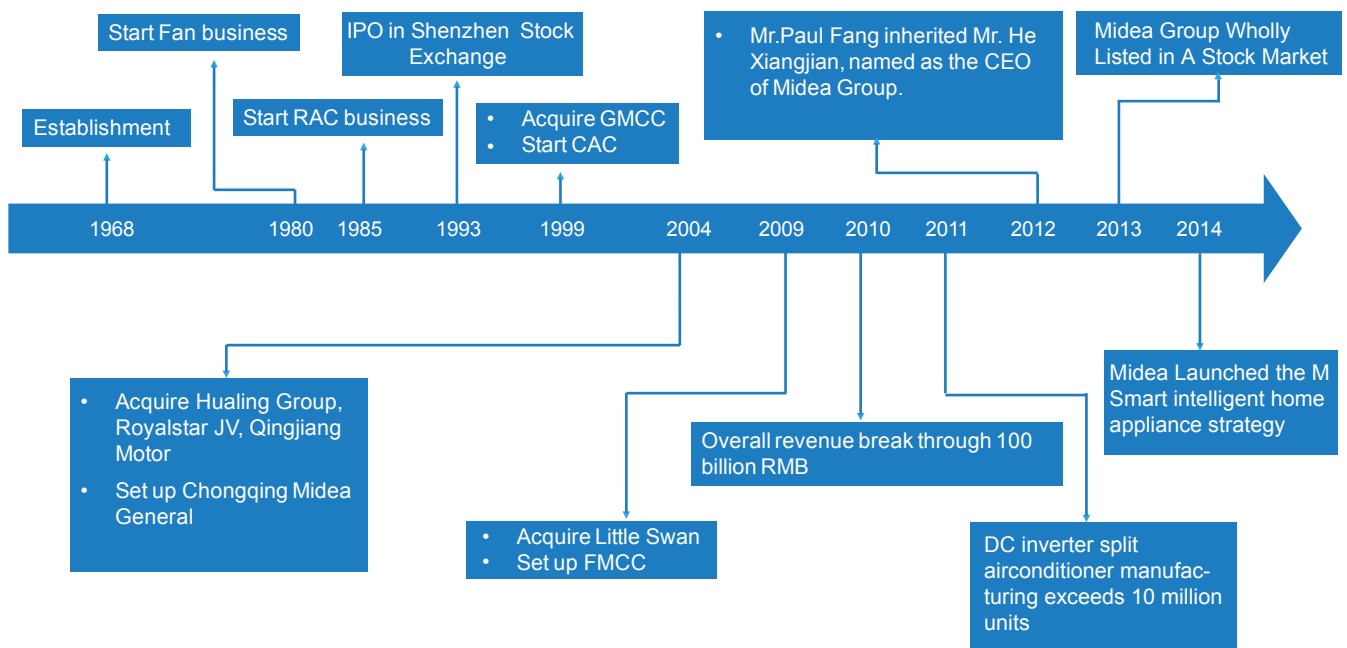
3.6 Environment Technology Application

## 3.1 Midea Group

Established in 1968, Midea has grown from what was once a local workshop into a leading consumer appliances and air conditioning systems manufacturer, with operations around the world. Its 40 years of persistent growth has brought its global turnover to 114.7 billion CNY in 2013 which is 19% compared with 2012. Consequently, Midea has created over 150,000 jobs both in China and throughout the world.

### The most experienced air conditioner and home appliance manufacturer in China

- ◆ Founded in 1968, by He Xiangjian
- ◆ Relying on more than 30 years of appliance manufacturing experience to provide the highest quality products all over the world
- ◆ Midea electric Listed on the Shenzhen Stock Exchange in 1993 (SZ:000527)
- ◆ Midea Group Wholly Listed in A Stock Market in 2013 (SZ000333)

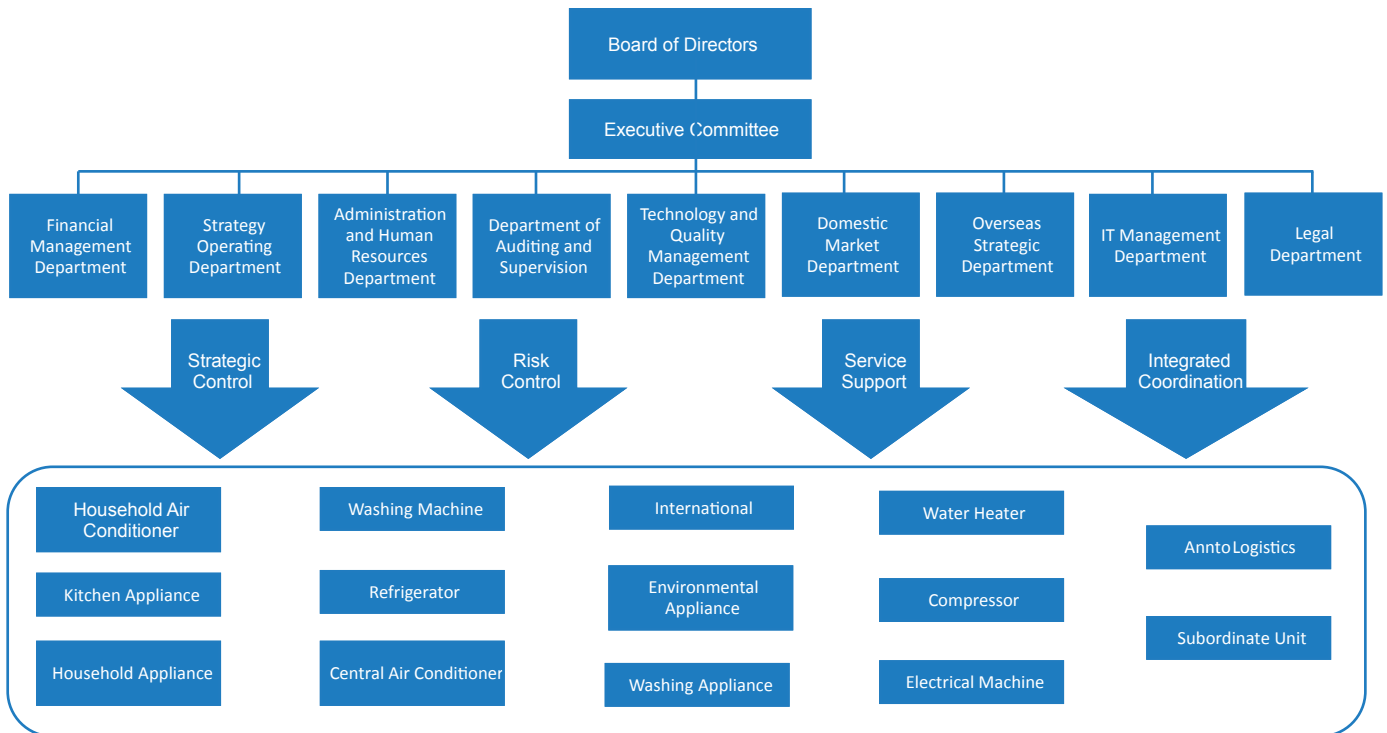


### World class production & the largest OEM in the industry

- ◆ The largest white goods manufacturer and exporter in China
- ◆ World class manufacturing & testing facilities to meet our customers' standards
- ◆ 15 Domestic production bases, covering over 7 million square meters of land
- ◆ 6 Overseas production facilities, and more than 20 overseas subsidiaries

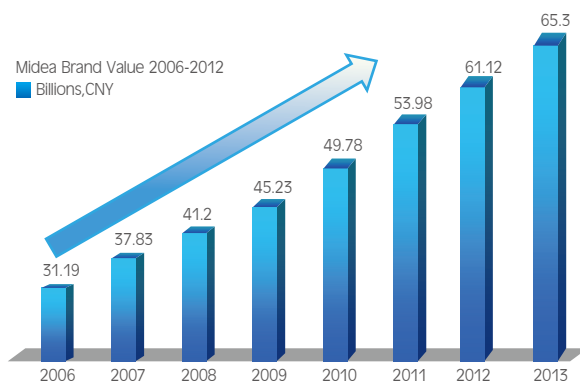


## Business divisions in Midea group

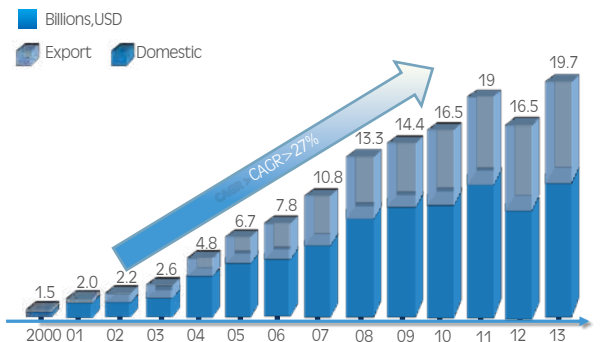


## China's 1<sup>st</sup> fully vertically Integrated appliance manufacturer

- ◆ 14 business units including HVAC, SDA, compressors and motors - fully integrated under Midea's Shunde HQ and provide a one-stop shopping experience for clients.
- ◆ Vertical integration means greater efficiency and quality control. The result is products with world class components: reliability, performance, and stability.



Turnover of Midea Group from 2000-2013

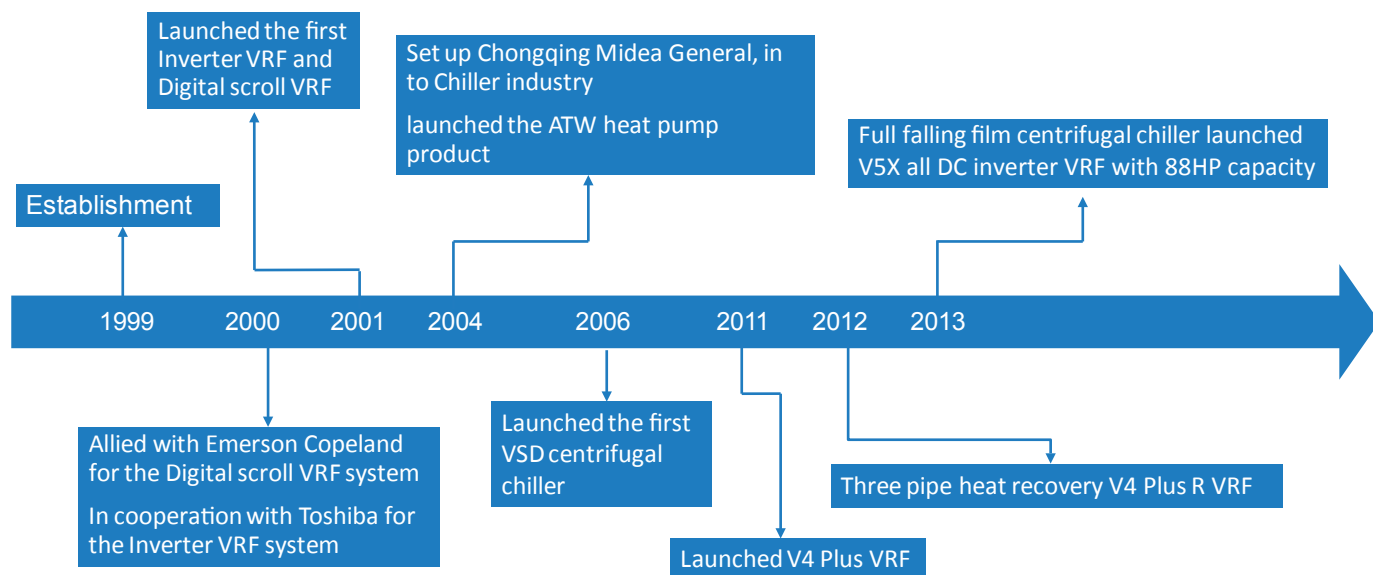


## Honors and achievements:

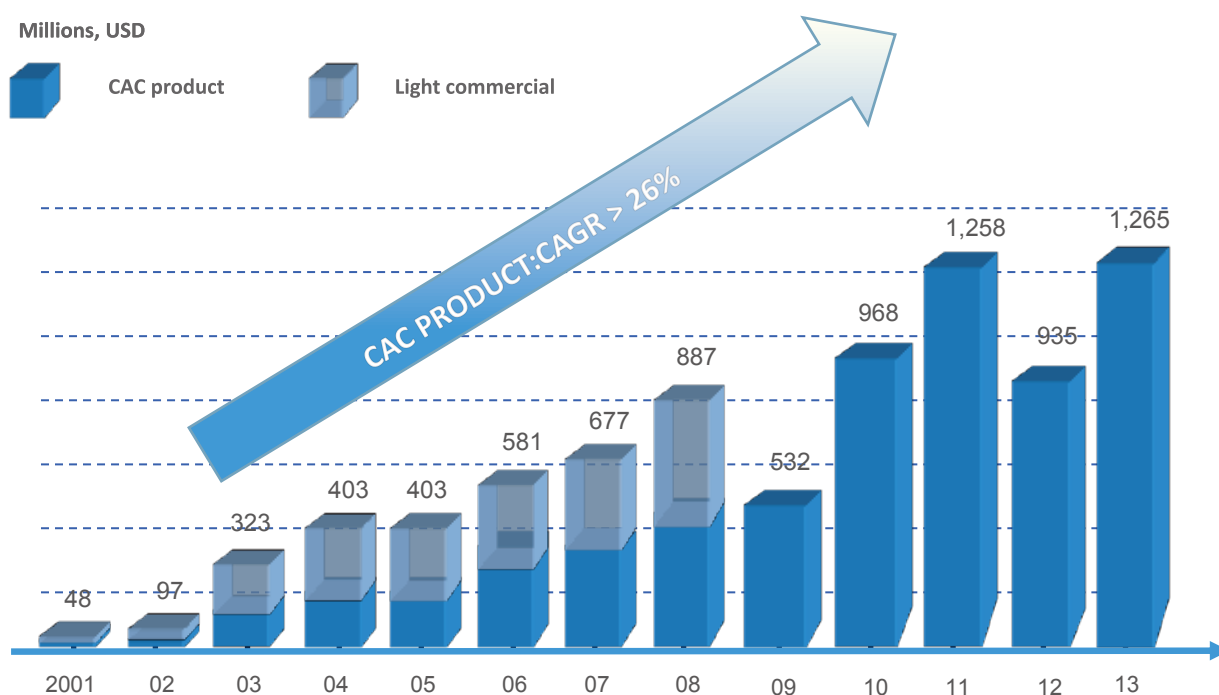
- ◆ Ranks 79th in the 2012 China Enterprise 500.
- ◆ The brand value of "Midea" reached RMB 65.3 billion (USD 10 billion), ranking as the 5th Most Valuable Brand in China in 2012.
- ◆ RMB 114.7 billion (USD 18.9 billion) sales revenue in 2013.

## 3.2 Midea Central Air Conditioner (MCAC)

As a key part of Midea Group, the Midea Central Air Conditioner (CAC) Business Unit is a professional CAC product supplier and commercial product solution expert. Starting from 1999 Midea central air-conditioner contributes to the commercial product R&D and technology innovation. By cooperating with the international enterprises plus the independent R&D, Midea CAC achieves big success in the commercial air-conditioner market and established thousands of the reference projects all over the world.



### Midea CAC sales turnover





### 3.3 Four departments in Midea CAC division



Efficient service is a key part for commercial air conditioning products. Midea CAC provides periodic technical trainings for technicians and after-sales service team, concerning the project design, product installation, system commissioning and maintenance.

7000 employees in Midea CAC provide professional support for all the clients.



## 3.4 CAC Manufacture Bases



### CAC CHONGQING BASE

- One of the largest chiller manufacturing bases in the world
- 4 production shops
- 350 units centrifugal chiller manufacturing capability
- 3000 units screw water chiller (Air cooled + Water cooled)
- 190,000 units of terminals(AHU+FCU)





## CAC HEFEI BASE

- Start to manufacture in December 2011
- Estimate production value is 4 billion in 2015
- Main product are VRF system, ATW heat pump and other commercial airconditioner



## CAC SHUNDE BASE

- One of the largest VRF manufacturing bases in the world
- 6 production shops
- 38 production lines
- 3 million sets manufacturing capacity

## 3.5 Quality Control

Successful businesses inevitably place great emphasis on managing quality control - carefully planned steps taken to ensure that the products and services offered to the customers are consistent and reliable and truly meet the customers' needs.

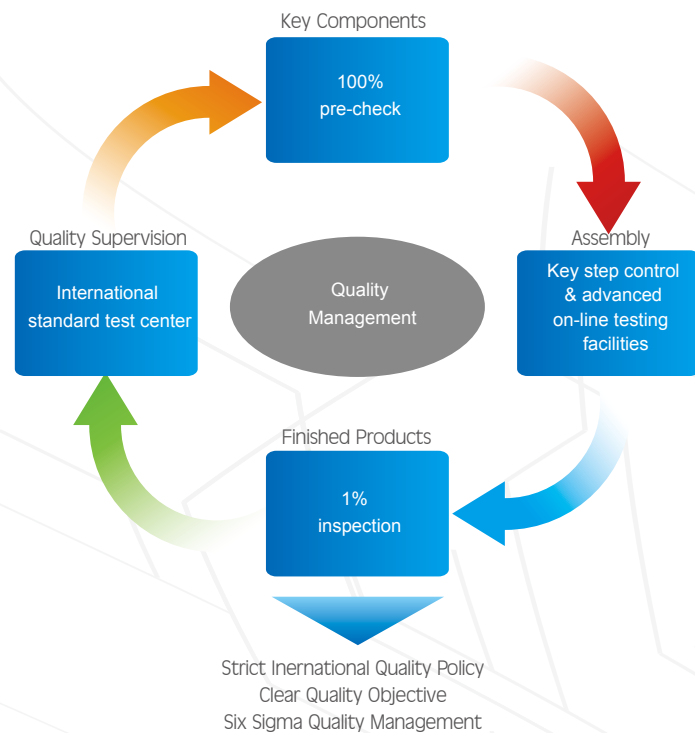
Midea use strict quality control system to ensure the product quality and outstanding performance.

All the material and components were 100% inspected before use.

Every single procedure is checked on the assemble line

All products and tested before shipment.

1% of the finished product were full inspection by strict procedure.



### [ Certificates ]


## Midea CAC Testing Center



### SHUNDE Testing Center

Midea CAC Shunde testing center is directly subordinate to Midea central air conditioner and all relevant products.

In the year of 2007, the testing center is audited and approved by China National Laboratory CNAS. It means that the testing center has the capacity of testing various kinds of air conditioners independently, giving authoritative report and carrying on fundamental technical research.

Midea CAC Shunde testing center has more than fifty labs including enthalpy difference labs, working conditioning labs, noise labs, safety lab and reliability labs. Some of them are authorized or approved by TUV, CAS and UL. Some of the labs are International Laboratory Accreditation Cooperation (ILAC) and with the ILAC Mutual Recognition Arrangement (MRA). It covers over 18 thousands square meters area, has more than 100 and 60 testers with academy degree and more than 20 testing and evaluation engineers with bachelor degree or above. And it totally has about 2 billion capital asserts.



### CHONGQING Chiller Testing Center

Midea Chongqing chiller testing center is one of the largest testing bases in the world for all kinds of chiller products.

The 8000Kw chiller performance test stand is certified by China National Refrigeration Equipment Inspection Center and it owns both the widest cooling capacity test range from 140kW to 8000kW.

Power supply voltage range is 380—460V 50Hz/60Hz 6000/6600V/10000/11000V 50Hz  
Accord with all conditions of ARI550/590 and GB/T18430.1

High automation: test instruments are controlled by variable frequency and PID, the set point can be reached in a short time.

High occupant efficiency: The test bench is equipped with three individual cooling and control systems and at most three chillers can be tested simultaneously.

High energy utilization rate: The test bench recovers all cooling capacity by means of blending chilled and condensing water. The whole system only needs to discharge the heat generated by compressor thus energy and operation cost is saved.

Midea air cooled screw testing center, water cooled screw testing center and centrifugal chiller testing center are AHRI certified. The AHRI witness testing is available for all the chiller product. The air cooled scroll chiller and FCU are Eurovent certified products.



## 3.6 Environment technology application

### Green system



Midea has an enviable record in concern for environmental issues and applies it to all areas of the business, implementing and in many cases pre-empting, international and local environmental protective legislation. We continually strives to reduce the quantities of materials, water resources, and energy used at its factories, as well as the amounts of chemicals and waste materials generated and atmospheric pollutants and CO<sub>2</sub> emitted, while trying to minimize manufacturing costs.

In all of Midea factory, the wastewater is treated before being discharged into the city drainage system. Other waste is also carefully sorted and recycled, supported by a continually evolving factory layout that encourages the optimum use of resources. Returnable packaging like wooden case, plastic and package are reinvested in where possible.

In the big area factory building, the photovoltaic panel was used widely. The panel is effective to prevent the temperature rise from the sunshine to decrease the energy consumption used to AC and ventilation system in the factory. The most important is that the electricity energy generated by the photovoltaic panel can be used to manufacture. In the factory off time the system also provide energy to the power supply net where can be used in other places.



Photovoltaic panel installed on Midea CAC factory

## Green manufacturing facility

Greener growth and energy efficiency will be the key words for the future development of Midea manufacturing sector in the face of growing pressure on resources and costs.



Robot system widely used in Midea manufacture line



Assemble Robot



Automatic Package



Automatic Welding

## Green solution

Our products reflect the concept of combining maximizing energy efficiency with maximum respect for the environment. Their utilization of ATW heat pump technology for example, results in far lower energy consumption and in the case of heating, drastically lower CO<sub>2</sub> emissions are achievable than with fossil fuel burning systems. Also their incorporation of numerous detailed features such as DC inverter control, heat recovery, economy operating modes, Midea VRF intelligent management system, hotel movement sensors among others, enhance user comfort without compromise to either efficiency or the environment.









## Products

4.1 Product lineup

4.2 Product catalogue index

4.3 Control system & selection software



## 4.1 Product lineup

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R410A Digital Scroll VRF D4 Plus 50Hz	1502-5V1411
R410A Tropical Digital Scroll VRF D4 Plus 50/60Hz	1502-6V1411
R410A All DC Inverter VRF V5 X Series 50/60Hz	1502-8V1411
Air Cooled Chillers 50Hz	1503-1C1411
Aqua Super Series Air Cooled Scroll Chiller 50Hz	1503-2C1411
Aqua Mini Chiller 50/60Hz	1503-3C1412
Tropical Air Cooled Chiller 50/60Hz	1503-4C1412
Water Cooled Screw Chiller	1503-5C1411
Standard and High Efficiency Centrifugal Chiller	1503-6C1412
Super High Efficiency Centrifugal Chiller	1503-7C1411
Fan Coil Units 50/60Hz	1503-8C1412
Air Handling Unit & Modular Air Handling Unit 50/60Hz	1503-9C1411
Midea Chiller Family	1503-10C1411
ClimaMaster Series Rooftop Package Unit 50Hz	1504-1R1412
ClimaMaker&ClimaCreator Series Rooftop Package Unit 50Hz	1504-2R1411
ClimaMaster Series Rooftop Package Unit 60Hz	1504-3R1411
Air Source Heat Pump 50/60Hz	1505-1H1411
R410A Split Commercial A/C 60Hz	1506-1S1412
Split Commercial A/C 50Hz	1506-2S1411
Precision A/C 50Hz	1508-1T1412



# R410A DC Inverter VRF A/C 50/60Hz



## V5 X Series (Modular Design)



25.2/28/33.5kW  
7.5/8/9.5USRT



40/45/50/56/61.5kW  
11.5/13/14.3/16/17.5USRT

## V4 Plus S Series (Modular Design)



25.2/28kW  
7.5/8USRT



33.5/40/45kW  
9.5/11.5/13USRT



50kW  
14.3USRT

## V4 Plus K Series (Modular Design)



25.2/28kW (50Hz only)  
7.5/8USRT



33.5/40/45kW (50Hz only)  
9.5/11.5/13USRT



50kW (50Hz only)  
14.3USRT

## V4 Plus (Modular Design)



25.2/28kW  
7.5/8USRT



33.5/40/45kW  
9.5/11.5/13USRT

## V4 Plus R Series (Modular Design)



25.2/28/33.5/40/45/50kW  
7.5/8/9.5/11.5/13/14.3USRT

## V4 Plus Individual Series



20/22.4/26kW  
5.7/6.4/7.4USRT



40/45kW  
11.5/13USRT



25.2/28kW  
7.5/8USRT



33.5/40/45kW  
9.5/11.5/13USRT



56/61.5/67kW  
16/17.5/19.1USRT



73/78.5/85/90kW  
20.7/22.3/24.1/25.5USRT

## V4 Plus W Series (Modular Design)

## Mini VRF



25.2/28/33.5kW  
7.5/8/9.5USRT



8/10.5kW  
2.3/3USRT



12/14/16/18kW  
3.5/4/4.5/5.1USRT



10.5/14kW  
3/4USRT

**Tropical**

## R410A Digital Scroll VRF A/C 50/60Hz



## D4 Plus (Modular Design)



25.2/28/33.5kW  
7.5/8/9.5USRT

**Tropical**



40/45kW  
11.5/13USRT

**Tropical**

Note: the unit with tropical mark is available in tropical area.

# VRF Indoor Units 50/60Hz

## Cassette

---



One-way Cassette  
1.8-3.6kW



One-way Cassette  
4.5-5.6kW



Two-way Cassette  
2.2-7.1kW



Compact Four-way Cassette  
1.5-4.5kW



Four-way Cassette  
2.8-14kW

## Low Static Pressure Duct

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1.8-7.1kW



1.5-7.1kW



8.0-14kW

## High Static Pressure Duct

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7.1-11.2kW



14-16kW



20-28kW (50Hz Only)



40-45kW  
56kW (50Hz Only)

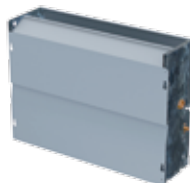




## Floor Standing



Exposed  
2.2-8kW(50Hz Only)



Concealed  
2.2-8kW(50Hz Only)



3.6-16kW

## Wall-mounted



S Type  
1.5-5.6kW



C Type  
2.2-5.6kW



R Type  
7.1-9kW

## Console



2.2-4.5kW (50Hz Only)



12.5-14kW



20-28kW

## Fresh Air Processing Unit

## HRV (Heat Recovery Ventilator)



200-1000m<sup>3</sup>/h



1500/2000m<sup>3</sup>/h

# Air-cooled Chillers 50/60Hz



## DC Inverter Unitary Mini Chiller

## Digital Split Mini Chiller (50Hz Only)



5/7kW  
(50Hz Only)



10/12/14/16kW (50Hz Only)  
10/18kW (60Hz Only)



10.5kW



12/14/16kW



Water Pump Box

## Fixed Unitary Mini Chiller (50Hz Only)



5/7.2kW



10.5kW



12/14/16kW

## Air-cooled Scroll Chiller (Maker&Power Series) (50/60Hz)



30kW

Tropical



Integrated 30kW



65kW

Tropical



120/130kW

Tropical



180/200kW

Tropical



250kW

Tropical

## Air-cooled Scroll Chiller (Super Series) (50Hz Only)



25/35kW



65/80kW



130kW

Note: the unit with tropical mark is available in tropical area.

## Air-cooled Screw Chiller



**Tropical**

T1: 380/500/600/720/900/1000/1200/1420kW  
T3: 380/500/600/760/900/1000/1200kW

## Water-cooled Chillers 50/60Hz

### Centrifugal Chiller



Standard series: 450~2200RT  
High efficiency series: 650~2200RT

### Water-cooled Screw Chiller



Water-Cooled Screw Chiller with Flooded Evaporator  
365kW-1500kW (103.8RT-426.5RT)



Water-Cooled Screw Chiller with DX Evaporator  
255kW-970kW (72.5RT-275.6RT)

## Air Handling Units 50/60Hz



**Horizontal Type**  
5,000m<sup>3</sup>/h~40,000m<sup>3</sup>/h  
2,950CFM~23,500CFM



**Vertical Type**  
3,000m<sup>3</sup>/h~40,000m<sup>3</sup>/h  
1,750CFM~23,500CFM



**Ceiling Type**  
2,000m<sup>3</sup>/h~15,000m<sup>3</sup>/h  
1,200CFM~9,000CFM

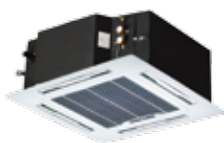


**Modular Air Handling Unit**  
3,000m<sup>3</sup>/h~200,000m<sup>3</sup>/h  
1,750CFM~117,700CFM

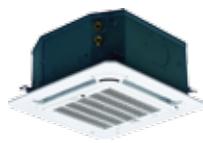


# Fan Coil Units 50/60Hz

## 2-pipe Fan Coil Units



4-way Cassette  
600-1500CFM  
5.7-12.9kW



Compact 4-way Cassette  
300-500CFM  
3-4.5kW



1-way Cassette  
300-400CFM  
3.04-3.79kW



1-way Cassette  
600CFM  
5.709kW



Duct  
200-2000CFM  
2-18kW



High Static Pressure Duct  
800-2200CFM  
6.6-19.9kW



Floor-standing with  
curved diffuser  
150-900CFM  
1.15-7.85kW



Floor-standing  
with flat diffuser  
150-900CFM  
1.15-7.85kW



Ceiling & Floor  
150-900CFM  
1.15-7.85kW



Concealed Type  
150-900CFM  
1.15-7.85kW



Wall-mounted (C Type)  
250-600CFM  
2.2-4.45kW



Wall-mounted (S Type)  
250-600CFM  
2.63-5kW

## 4-pipe Fan Coil Units



4-way Cassette  
600-1500CFM  
5.1-10.58kW



Compact 4-way Cassette  
300-500CFM  
2.5-3.5kW



Duct  
200-1400CFM  
2-11.5kW

# Rooftop Package Units 50/60Hz

## R410A Rooftop Package Units



Tropical



3/4/5TON

Tropical



6.2/7.5TON

Tropical



8.5/10TON

Tropical



12.5TON

Tropical



15/17.5/20TON

Tropical



30TON

## R22 Rooftop Package Units



Tropical



3/4/5TON

Tropical



6.2/7.5/8.5/10TON

Tropical



12.5/15/17.5/20/25TON

Note: the unit with tropical mark is available in tropical area.

# R410A Large Split A/C 50/60Hz



All DC Inverter (26.5kW) (7.6USRT)



MSP\* Duct & (22/28kW) (6.25/8USRT)  
HSP\* Duct (22/28kW) (6.25/8USRT)(50Hz Only)



MSP\* Duct (35/44/52.5/70kW) (10/12.5/15/20USRT)  
HSP\* Duct (44/55kW) (12.5/15.6USRT) (50Hz Only)



Commercial AHU (26/35kW) (7.5/10USRT) (60Hz Only)



Floor-standing (22/28kW)(6.25/8USRT)  
(35kW)(10USRT)(50Hz Only)



All DC Inverter  
(26.5kW)  
(7.6USRT)



22/28kW  
6.25/8USRT



35kW  
10USRT

Tropical

Tropical



44kW  
12.5USRT



56kW  
16USRT

## 100% Fresh Air DX AHU



53/64/98kW  
15/18/28USRT



53kW  
15USRT



64kW  
18USRT



98kW  
28USRT

Note: the unit with tropical mark is available in tropical area.  
MSP\* means Medium Static Pressure;  
HSP\* means High Static Pressure;



# R22 Large Split A/C 50Hz



22kW  
6.25USRT



28kW  
8USRT



44kW  
12.5USRT



56kW  
16USRT

**Tropical**



22/28kW  
6.25/8USRT



35kW  
10USRT



35kW  
10USRT

**Tropical**



MSP\* Duct  
(22/28kW)  
(6.25/8USRT)



HSP\* Duct  
(22/28kW)  
(6.25/8USRT)



MSP\* Duct  
(35/44kW)  
(10/12.5USRT)



HSP\* Duct  
(44/56kW)  
(12.5/16USRT)



Floor-standing (22/28kW)  
(6.25/8USRT)

Note: the unit with tropical mark is available in tropical area.  
MSP\* means Medium Static Pressure;  
HSP\* means High Static Pressure;

# Heat Pump Water Heater 50/60Hz

## Sanitary Hot Water-combo Type



R134a 1.5kW  
150L



R134a 1.5kW  
190L



R134a 1.5kW  
190L



R134a 3kW  
300L

## Sanitary Hot Water-split Type



R410A 3.2/5/7.2kW



Hydraulic indoor unit



R410A 6/8/10/12/14kW

## M-Thermal

## Pool/Spa



R410A 6/8/12/14kW



Direct heating type  
R410A 10/20kW



Direct heating type  
R410A 39kW

## Commercial Application



Direct heating type  
R410A 42kW  
(60Hz Only)



Direct heating type  
R410A 80kW (50Hz Only)  
R410A 82.5kW (60Hz Only)



Cycle heating type  
R410A 27kW

# Base Station & Precision A/C 50Hz

## Base Station A/C (Split Type Outdoor Unit)



R22/R410A 5.5kW



R22/R410A 7.59kW



R22/R410A 13kW

## Base Station & Precision A/C 50Hz

### Base Station A/C (Split Type Indoor Unit)



R22/R410A 5.5/7.59/13kW  
With free cooling



R22/R410A 5.5/7.59/13kW  
Without free cooling



R22/R407c 6/7.5/12kW  
With free cooling

### Precision A/C



Underfloor delivery  
Top intake  
R410A/R22  
20/25kW



Underfloor delivery  
Top intake  
R410A/R22  
35-60kW



Underfloor delivery  
Top intake  
R410A/R22  
70-100kW



Top delivery  
Front intake  
R410A/R22  
20-30kW



Top delivery  
Front intake  
R410A/R22  
35-60kW



Top delivery  
Front intake  
R410A/R22  
70-100kW



Front delivery, Front intake  
R410A/R22, 5.5-17kW



# CCU (Compressor Condenser Unit) 50Hz

## R410A Type



3.2kW



5.3kW



7.1kW



10.5kW



14/16kW



22/28kW



35kW



45kW



53/61kW



70kW



105kW

## R407c Type



7.0kW



10.5kW



14/16kW



22/28kW



34kW



45kW

# Products for North America 60Hz



## 18 SEER DC Inverter Condensing Unit



2/3/4/5TON

## 14&16 SEER Condensing Unit



1.5/2/2.5/3/3.5/4/5TON

## 14SEER+81%AFUE Gas Package



2/3/4/5Ton

## Gas Furnace



80%AFUE

50/70/80/90/100/110/120/135kBtu/h



93%AFUE

60/80/100/120kBtu/h

## 14 SEER Rooftop Series



Horizontal Discharged (13SEER Only)

2/2.5/3/3.5/4/5TON



Horizontal or Downflow Discharged

2/2.5/3/3.5/4/5TON

## 14,16&18 SEER Air Handler



1.5/2/2.5/3/3.5/4/5TON

## Pancake Fan Coil



1.5/2/2.5/3TON

(14 SEER )

## A Coil Series



1.5/2/2.5/3 Ton  
(14 SEER )



1.5/2/2.5/3/3.5/4/5TON



1.5/2/2.5/3/3.5/4/5TON

# Products for North America 60Hz



## VRF Outdoor Units



VRF outdoor unit (Modular Design)  
6/8/10/12TON



Mini VRF  
3/4TON

## VRF Indoor Units



Compact Four-way Cassette  
7/9/12/15kBtu/h



Four-way Cassette  
9/12/15/18/24/27/  
30/36/38/48kBtu/h



Medium Static Pressure Duct (A5 Type)  
7/9/12/15/18/24/27/30/36/48kBtu/h



Ceiling & Floor  
12/15/18/24/27/30/36/48/54kBtu/h



Wall-mounted (S type)  
7/9/12/15/18kBtu/h



Wall-mounted (R type)  
24/30kBtu/h



High Static Pressure Duct  
24/27/30/36kBtu/h



High Static Pressure Duct  
48/54kBtu/h



High Static Pressure Duct  
72/96kBtu/h



Fresh Air Processing Unit  
36/48kBtu/h



Fresh Air Processing Unit  
54/72/96kBtu/h





## 4.3 Control System & Selection Software

### Controllers

#### Wireless Remote Controllers



RM02  
Address setting



R05/BG(C)E



RM05/BG(T)E-A  
Address setting



R51/(C)E



R71/(C)E

#### Wired Controllers



KJR-10B/KJR-12B  
(12B with follow me)



KJR-27B/E  
HRV wired controller



KJR-29B  
Touch Key



KJR-86C  
Model-button Hidden



KJR-90A



KJR-120B  
HR wired controller



KJR-120C  
Weekly schedule controller

#### Centrallized controllers



CCM02  
Outdoor Monitor



CCM03/(M)  
Indoor CCM



CCM09  
Indoor CCM  
(Weekly Timer)



CCM30  
Indoor CCM  
(Touch Key)



KJR-90B  
Unified ON/OFF controller

#### Gateway



M-Interface Gateway



New LonWorks Gateway



Modbus Gateway

# Control System & Selection Software



CCM08  
BACnet Gateway



CCM15  
Data Converter

## Software



The 4th generation VRF  
network monitoring system



VRF diagnostic software



VRF selection software



Air cooled scroll chiller  
network software



Chillers selection software



FCU selection software

## Thermostat



KJR-21B  
Fan coil unit thermostat



KJR-15B/(P)  
Floor-standing  
fan coil unit thermostat



KJR-18B  
Fan coil unit  
mechanical thermostat



KJR-23B  
Rooftop package  
digital thermostat



KJR-25B  
Air handling unit  
thermostat

## Chiller Controllers



KJRM-120D/BMK-E  
Air cooled scroll chiller  
wired controller



KJR-120A/MBTE  
Air cooled scroll chiller  
wired controller

## Accessories



NIM01  
Network interface module



MD-NIM05  
Hotel card key interface module



MD-NIM09  
Infrared sensor



MD-NIM10  
Network electricity distribution  
module



DTS634  
Digital ammeter



DPA51CM44(220V)  
HWUA/DPB71CM48(380V)  
3-phase power protector



KJR-32B  
Outdoor unit alarm



KJR-150A  
Indoor unit group controller



SW485GI/R  
Repeater



(MDV)DWZL.D.1  
Low temp. cooling module



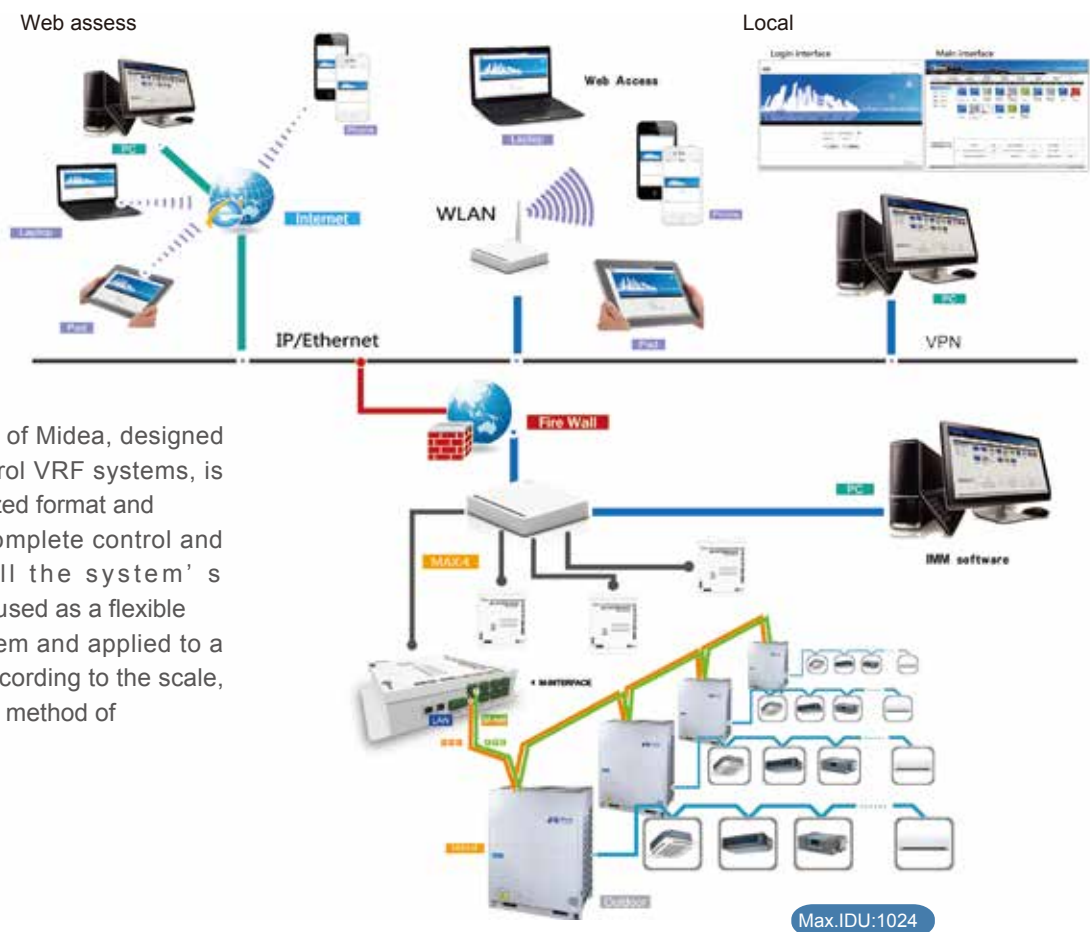
FCU connection kit



AHU control box

# Control System & Selection Software

## IMM(Intelligent Manager of Midea)

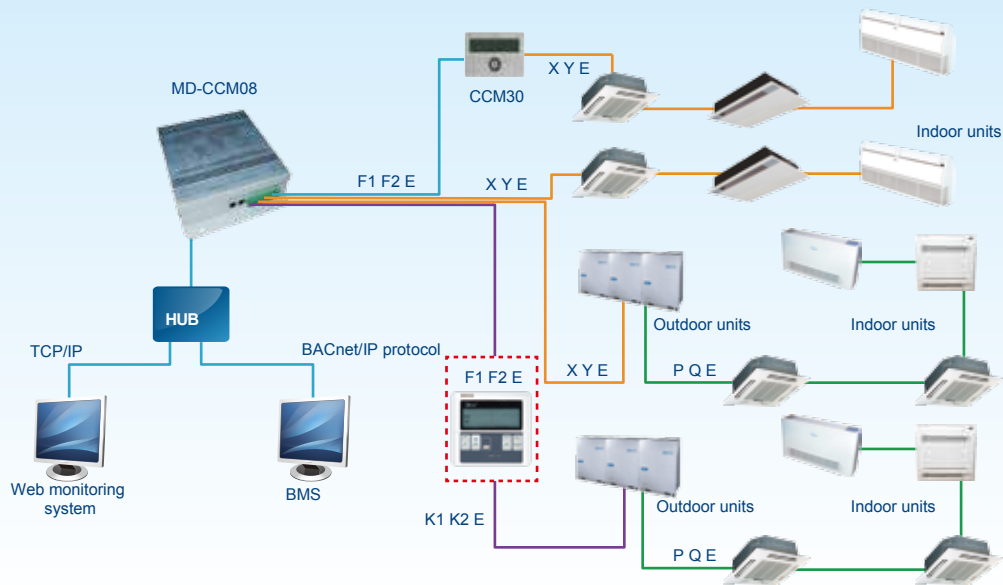


## Cloud server



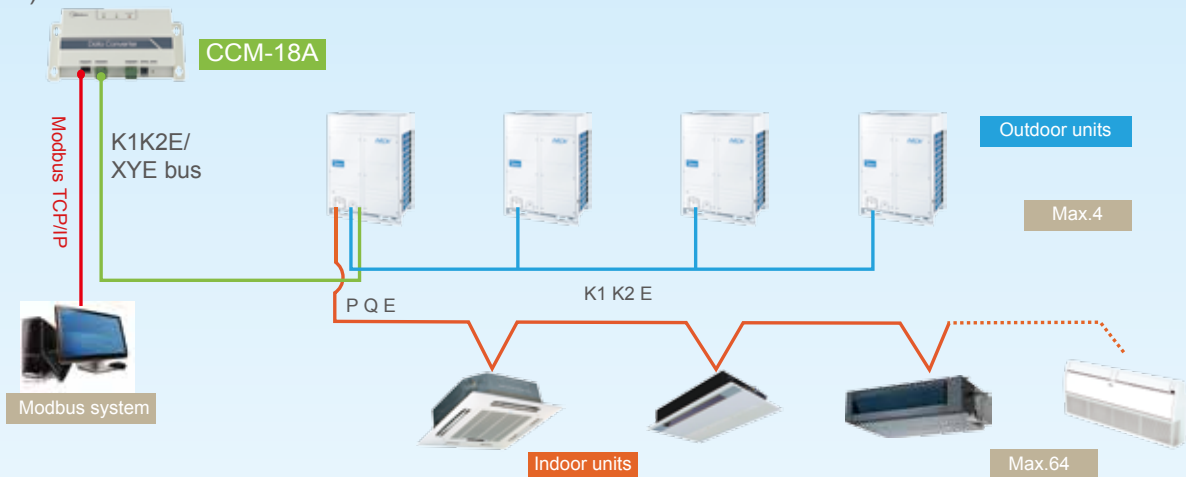


## BMS gateway

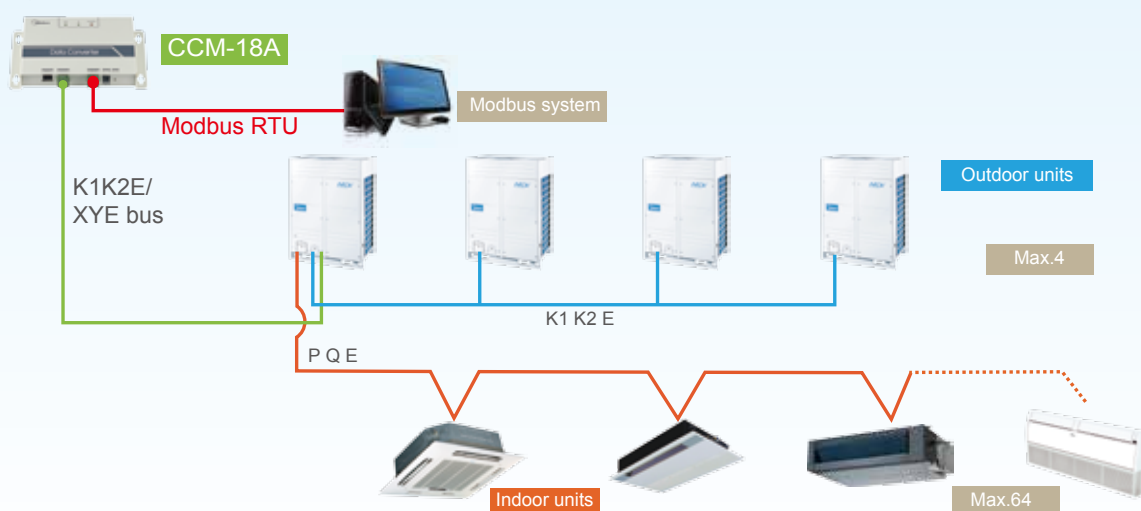


## Modbus gateway

### 1) TCP connection method



### 2) RTU connection method



- \*1. If it connects to XYE ports of master ODU, ODU must be set to auto addressing mode.
- 2. XYE and K1K2E must be connected hand by hand.

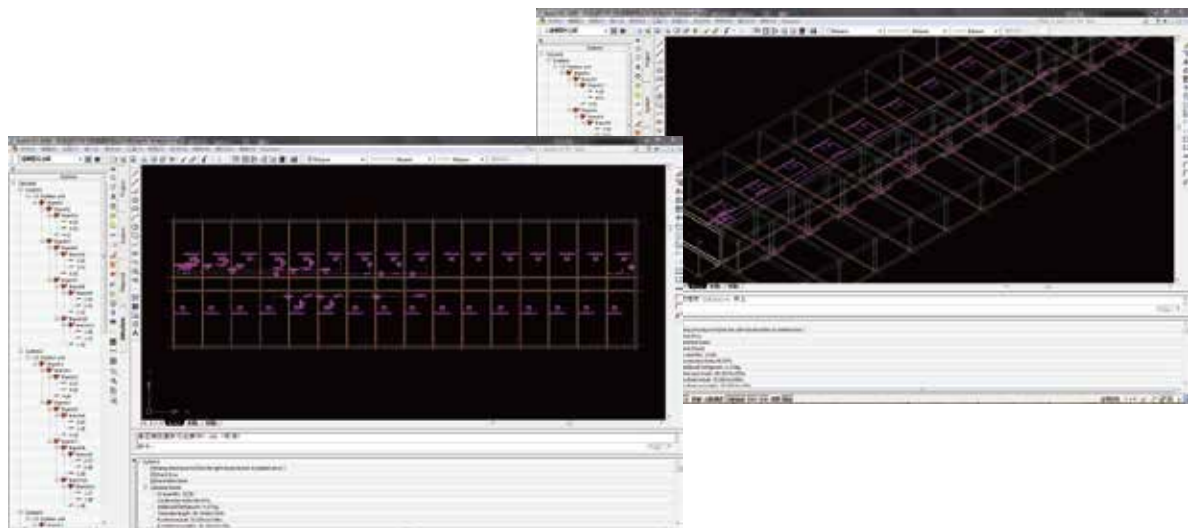
# Control System & Selection Software

## Selection Software for Midea CAC

### VRF Selection Software Windows Version



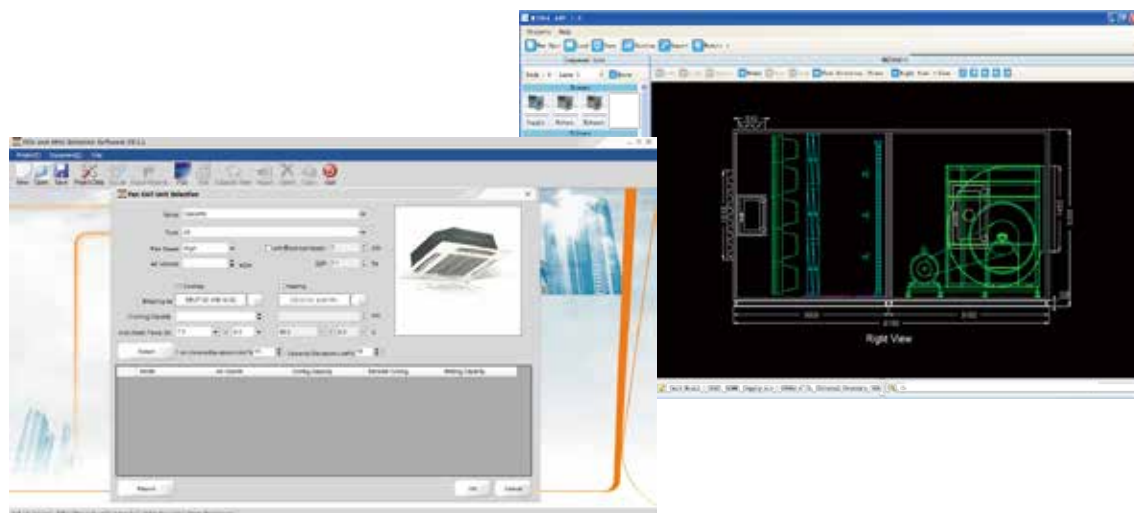
### VRF Selection Software CAD Version



## Chillers Selection Software



## AHU & FCU Selection Software





## Marketing Strategies and Supports

5.1 Marketing Support Map

5.2 MDV Elite Club

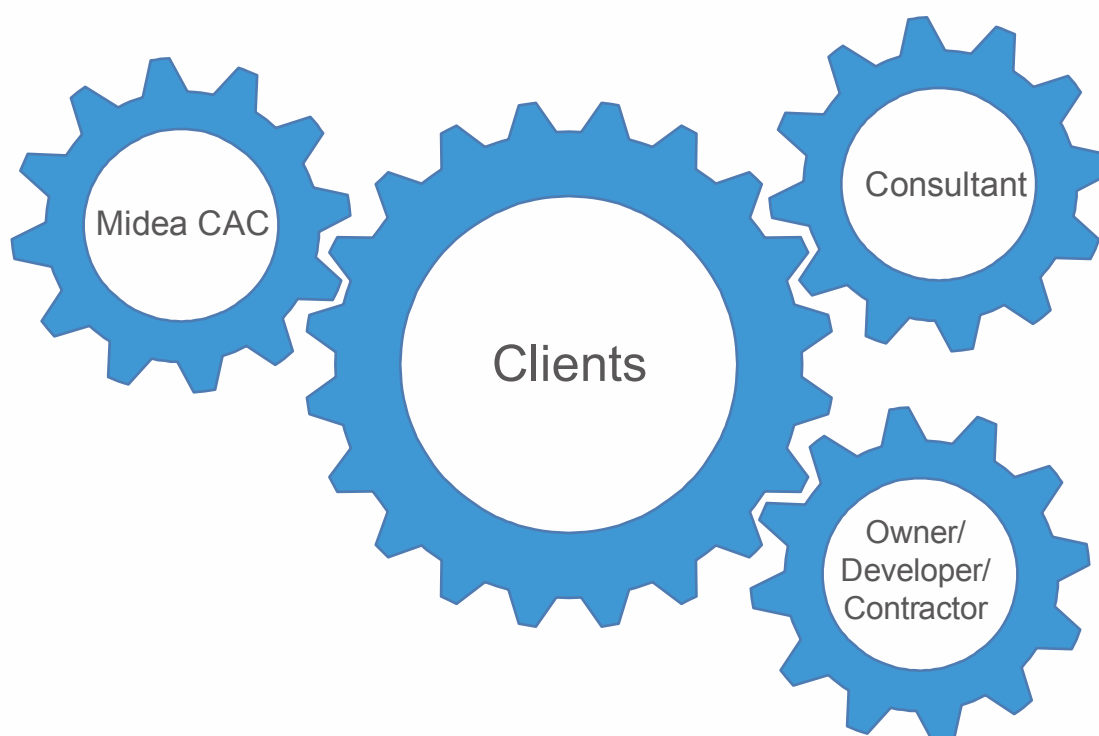
5.3 MDV Elite Camp

5.4 Midea Conference Projects

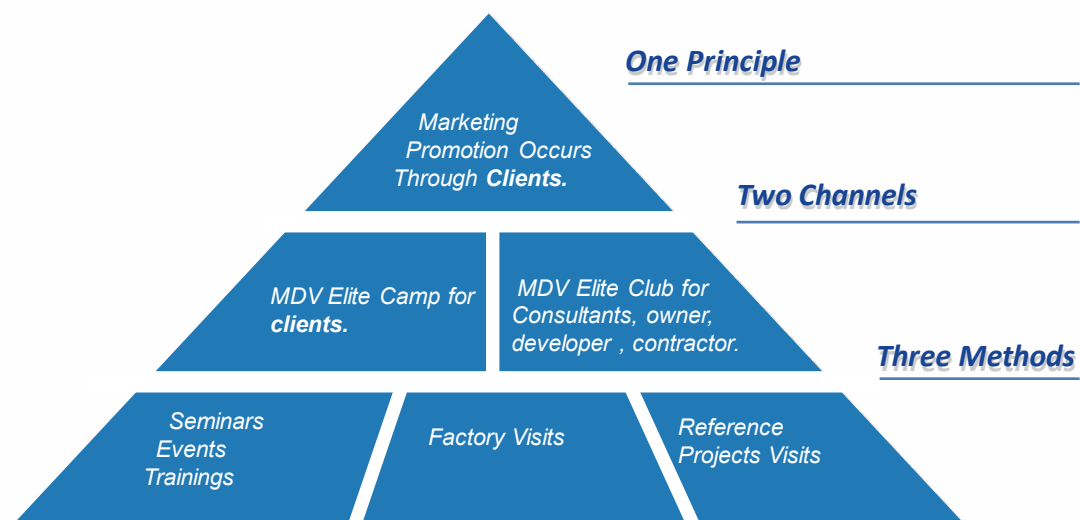
5.5 Global Technical Training



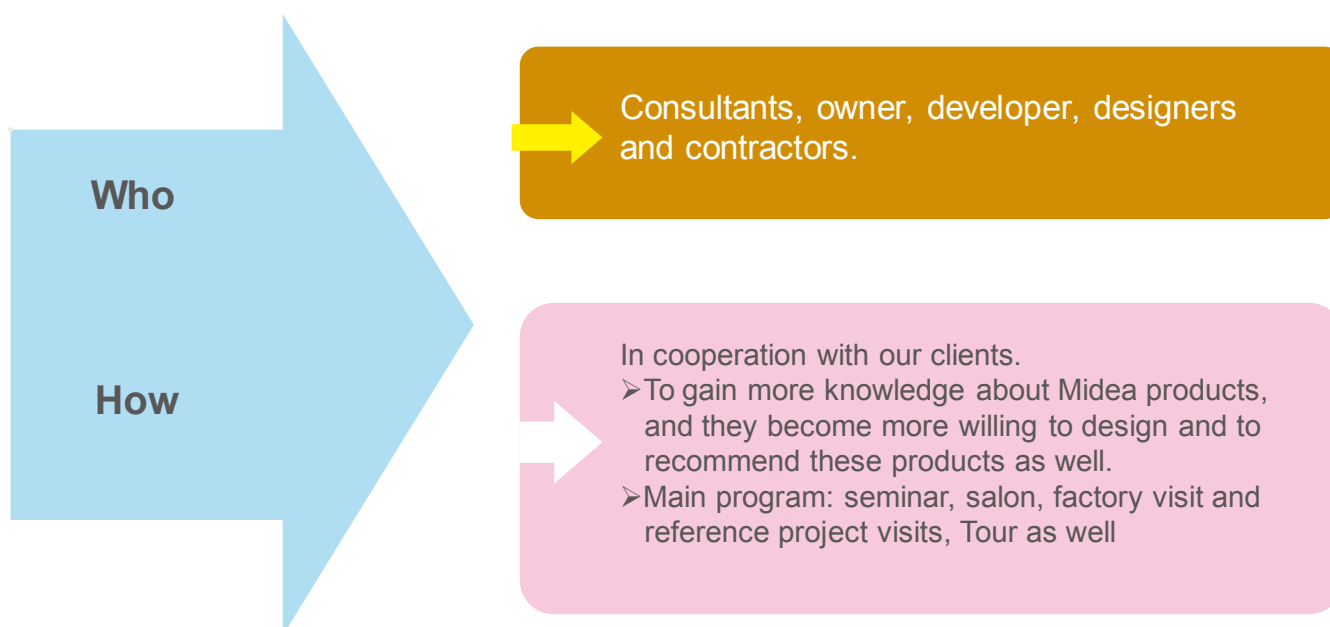
## 5.1 Marketing Support Map



- All the Marketing Activities will be carried out relying on our clients.
- The relations are maintained by our clients, and we provides material and economic support.



## 5.2 MDV Elite Club



MDV ELITE CLUB is a program for all the consultants, design engineers, project supervisors and more who can help us to design our system and promote our product on the market. Through the periodic member gathering like conference, salon, golf, and factory visit all members can share the experience of HVAC project design and discuss the new trend of air-conditioner business.



Midea The 1st MDV Elite Club Seminar in Jun. 2010



Midea The 1st MDV Elite Club Seminar in 2010

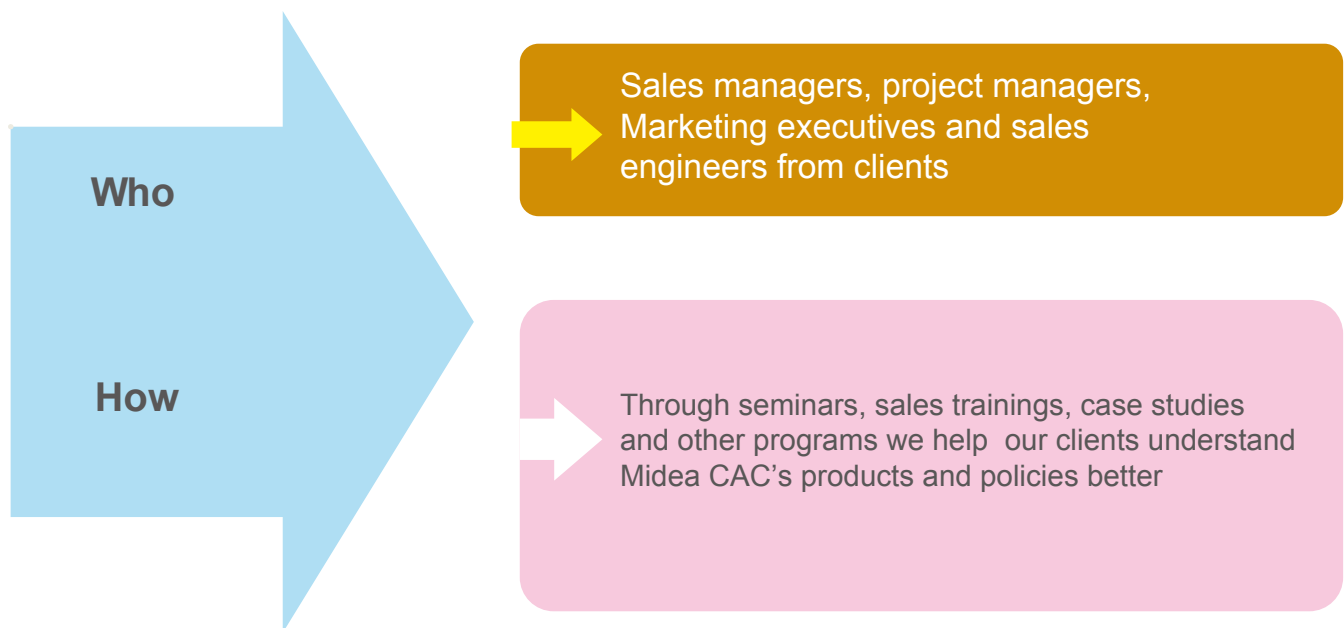


Midea MDV Elite Club Seminar 2011



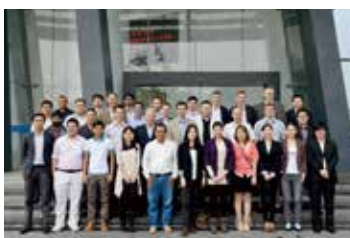


### 5.3 MDV Elite Camp

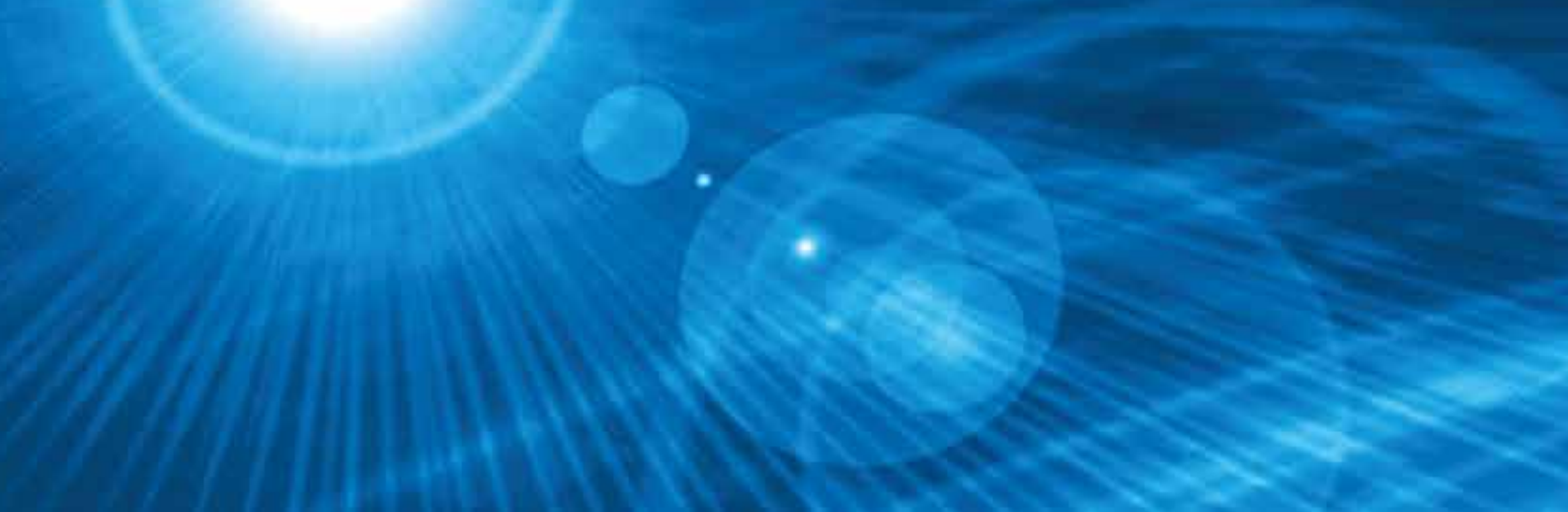


MDV ELITE CAMP is a professional platform for the sales engineer and sales manager from the distributor side. Through seminar, market/product training and proposal discussion, the member can master decent product knowledge and marketing experience to provide the right proposal to the project. This will help the distributor educate sales elites in a very short time and increase the business efficiency.









## 5.4 Midea Regional Conference

MIDEA REGIONAL CONFERENCE is the meeting in different regions where can cover many different distributors. The conference always take 2 to 3 days for all the core product launching and strategy explaining. One private meeting for the individual distributor also will be hold to discuss all product, service,sales and policy. The conference is convenient for all the clients to participate and save the time and cost compared holding in China.



## 5.5 Global Technical Training

GLOBAL TECHNICAL TRAINING is a professional training platform for all the technical engineers. The technical training including project design training, product application training like installation and operation. The after sales service will focus on the trouble shooting and repair. Every year two global trainings will be arranged in China. To all our customers in different countries and regions, Midea CAC also provides the on site training service by dispatching the professional technical engineers.







Project solution

## **Customer oriented, providing unsurpassed project solution.**

**We listen to all details and requests of clients and provide professional proposals to them.**

**We own a wide product range and there is always one out there for your project.**







## Hotel



Utilizing every 1kW/h electricity to provide comfort air conditioning and hot water to customers is the pursuit for all hotels. We provide perfect solutions to meet various needs of different group in the hotel industry. Whatever the application, from relatively simple needs of a small hotel to the more demanding needs of larger, more complex environments, our comprehensive range is set to provide the ultimate in energy efficiency and constant comfort for all. Our systems are designed to fully integrate with Building and Energy Management Systems, enabling total control of your entire building with the assurance of joyful comfort for your guests.

Midea CAC provides the best solutions to Hilton, Marriott, Sheraton, Intercontinental etc.

### Midea hotel solutions

Big capacity centrifugal chiller with COP 7 provides enough cooling capacity at all peak seasons.

Air to water heat pump water heater with super COP up to 5.5 is the best solution to hotel rooms and constant temperature swimming pools.

Midea full DC inverter VRF is the best choice for the fast cooling and quiet operation experience.

Health and green living environment are most concerned to our family members. Midea CAC cooperates with many biggest real estate companies to provide all demanding comfort and hot water solutions. We have set up thousands of reference projects in Evergrande estate, Vanke real estate, Agile property, Country garden estate and Al silla villas in Emirates housing program etc.

## Midea housing solutions

Mini VRF system with range from 8kW to 18Kw designed for residential houses.

Air to water heat pump water heater providing comfort hot water to shower, kitchen and floor heating.

Intelligent control system offering convenient operation for AC, hot water and indoor fresh air.



## Housing



The railway station and bus station are the most crowded area every day. The required cooling capacity ranges from hundred tonnages to thousand tonnages depending on the size of the station. Midea CAC dedicates to providing customized product and service to all railway stations by wide product lineup and reliable central AC system. Midea CAC provides professional solutions for most Chinese high speed railway stations like Jinghu, Wuguang, Huning, Jingshi railway station and Beijing metro and Xi'an metro station.

#### Midea transportation solutions

High efficiency screw chiller (water cooled & air cooled) system with capacity ranging from 100 to 1500Kw

Air cooled modular chiller providing various cooling capacity choices by flexible combination.

AHU with big air flow and large cooling capacity used in the public area and FCU used in small capacity application

Precision AC supplying constant temperature and humidity within 24 hours for all the control rooms and computer systems.



Transportation





The same as the public transportation area, a reliable central AC is the most critical system in the airport. Large cooling capacity and fresh air is required 24 hours. System reliability and energy saving is the biggest concern for every airport.

Midea CAC provides the central air conditioning system in Beijing international airport, Jakarta international airport, Singapore international, Moscow Sheremetyevo international airport, Mozambique international airport etc.

#### Midea airport solutions

Centrifugal chiller system with COP 7 in full load and VSD centrifugal chiller in partial load with IPLV 11. AHU and FCU.

Air cooled screw chiller and scroll chiller by system combination to provide any cooling capacity.



Big water volume with constant water temperature is demanded in the industrial processing procedure. Treated air is also required in most of the semi conduct, medicine and food industry. Midea CAC provides professional solutions for various industry demands. We focus on high efficiency and low power consumption equipment to increase the manufacturing efficiency.

#### Midea industry solutions

Big centrifugal chiller system with heat pump function or heat recovery system.  
Screw water chiller with glycol to provide chilled water temperature below zero.  
AHU with air quality control and heat recovery.  
Precision AC for computer rooms and machining center in 24 hours.



A quiet and comfortable environment is most important for the patients. Midea CAC provides green and comfort AC and hot water solutions to the hospitals. The advanced control system facilitates the use of AC according to actual requirements. The IAQ (indoor air quality) is well treated to prevent the cross infection for all the people in the hospital. High reliability is the basic requirement in some critical area like operation room, patient rest room and equipment operation area.

## Midea hospital solutions

Air cooled screw and scroll chillers with flexible cooling capacity by system combination.

DC inverter VRF unit with comfortable air and excellent noise control.

The central control system to monitor and control all the central AC system.

Air to water heat pump water heater to provide constant and adequate hot water.



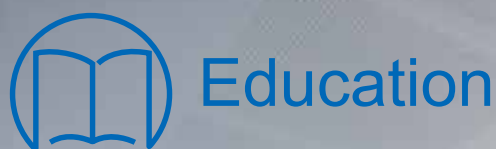
## Hospital



Campus as an educational institution, to provide students with an example of frugality, there are high requirements in terms of energy consumption. Meanwhile, teachers and students want to study in a quiet environment, silent air conditioning system. There are strict requirements in the air conditioner system to allow students to grow up healthy. In the kitchen and dormitory, huge amount of the hot water required. Safe and high efficient hot water should be provided to all of them.

#### Midea education solutions

Air to water heat pump water heater with super COP up to 5.5 is the best solution to kitchen and dormitory. Midea full DC inverter VRF is the best choice for the fast cooling and quiet operation experience.







## Communication



That a constant and stable telephone and internet signal is closely related to the central AC in the computer room is most essential for all environmental IT processes. Midea CAC is the biggest central AC provider to Chinese telecom operators like China Unicom, China Telecom and China Mobile. Midea precision air conditioner provides constant temperature and humidity 24 hours for equipment room, data center and remote sites and other IT facilities.

### Midea communication solutions

Midea precision AC with capacity range from 5.5 to 100kW.

Air cooled modular chiller constantly providing chilled water temperature to chilled water terminals (AHU & FCU).



Reference project

## Sports



**2014 FIFA World Cup Brazil Beira Rio Stadium**

**Country: Brazil**

**City: Porto Alegre**



**2014 African Games Stadium**

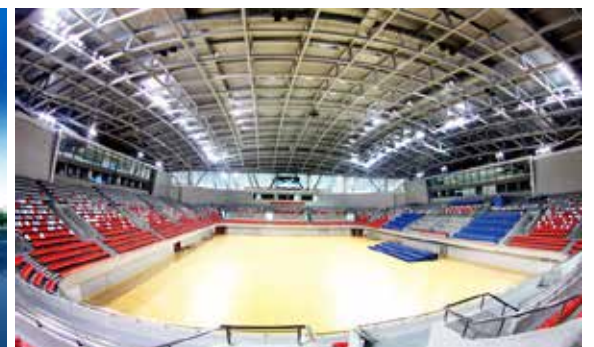
**Country: Congo**

**City: Brazzaville**





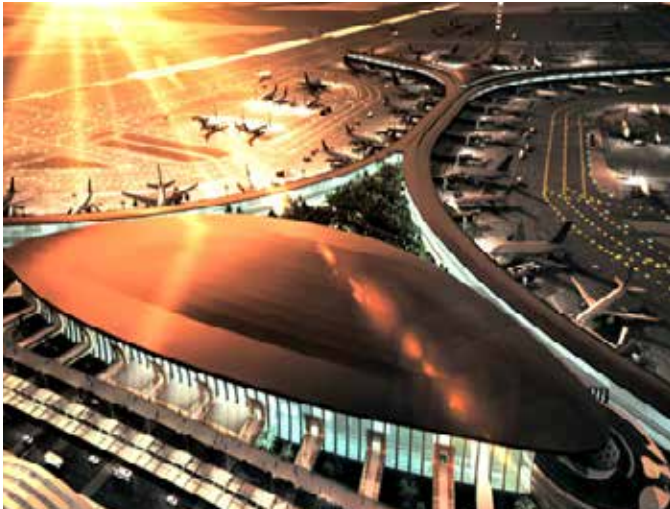
**The 27th Southeast Asian Games Stadium**  
**Country: Myanmar**  
**City: Nay Pyi Taw**



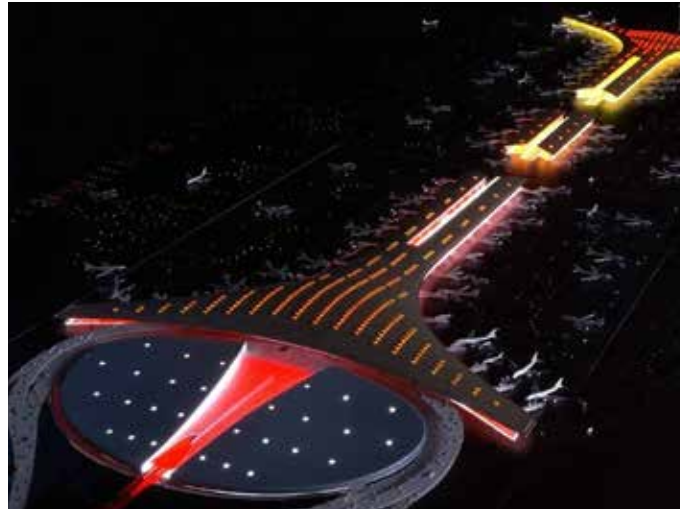
**Guangzhou Asian Games Stadium**  
**Country: China**  
**City: Guangzhou**



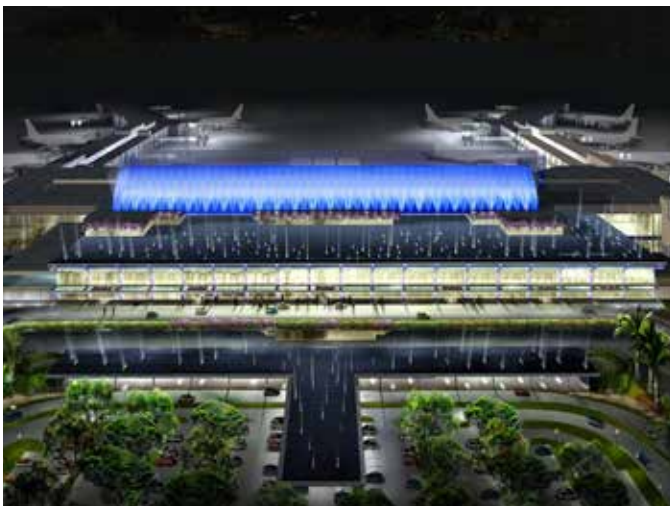
# Transportation



**Abdul-Aziz King International Airport**  
City: Jeddah, KSA



**Beijing Capital airport Terminal three**  
City: Beijing, China



**Singapore Changi Airport Terminal one**  
City: Changi



**São Paulo-Guarulhos International Airport**  
City: São Paulo, Brazil



**Aeroporto di Milano-Malpensa**  
City: Milano, Italy



**Maputo International Airport,**  
City: Maputo, Mozambique



## Hotel&Restaurant



**Hilton Barcelona Maria Cristina (Five Star)**  
Country: Spain  
City: Barcelona



**Sheraton Bandara Resort Hotel (Five Star)**  
Country: Indonesia  
City: Jakarta



## Complex



**Dalma Mall (The largest mall in Abu Dhabi)**  
**Country: U.A.E.**  
**City: Abu Dhabi**

## Office



**Cheongwadae**  
Country: Korea  
City: Seoul



**Moçambique Presidential Palace**  
Country: Mozambique  
City: Maputo



## Office



**Midea Headquarter Building**  
Country: China  
City: Shunde



**Rand Gallery Office Building**  
Country: Iraq  
City: Sulaymaniyah



## Residential Buildings



Ain Al Fayda Emirati Housing Development (5000 Villas)  
Country: U.A.E.  
City: Al Ain



## Culture Facilities



Winter Palace  
Country: Russia  
City: Saint Petersburg



2012 World EXPO Venue  
Country: China  
City: shanghai



## Education



The University of Edinburgh

Country: UK

City: Edinburgh



RAK College of Dental Sciences

Country: U.A.E.

City: RAK



## Industry



出厂日期 1972 年

Date of Production: Year 1972



Sinopec Beijing Yanshan Company

Country: China

City: Beijing



Castagna Univel Factory

Country: Italy

City: Milan



## Hospital&Healthcare



**Siriraj Hospital**  
Country: Thailand  
City: Bangkok



**Konya Karatay Belediyesi Hospital**  
Country: Turkey  
City: Konya



**Naseem Jeddah Hospital**  
Country: K.S.A.  
City: Jeddah

## Part of reference project list

Application	Project Name	Country	City	Machine type
Complex	Harvey Nichols Edinburgh	United Kingdom	Edinburgh	Air-cooled scroll chiller
Complex	GEPOFIN	Italy	Potenza	DC Inverter VRF
Complex	Ideas Shopping Mall	Greece	Patras	DC Inverter VRF
Complex	ARKAD Shopping Mall	Czech	Prague	DC Inverter VRF
Complex	Foro Central	Brazil	Porto Alegre	DC Inverter VRF
Complex	PVC Nghe An Complex Building	Vietnam	Vinh	Air-cooled screw chiller
Complex	J.S. Center Shopping Mall	Pakistan	Karachi	Abosobtion chiller
Complex	Gandaria City Cinema XXI	Indonesia	Jakarta	Air-cooled scroll chiller
Complex	Mumbai Little World Shopping Mall	India	Mumbai	Water-cooled & Air-cooled screw chiller
Office	Vimpelcom Office Building	Russia	Yaroslavl	Air-cooled scroll chiller
Office	Malta Office Building	Malta	Malta	DC Inverter VRF
Office	FINNING CAT Office Building	Chile	Santiago	Air-cooled scroll chiller
Office	Rand Gallery Office Building	Iraq	Sulaymaniyah	Digital Scroll VRF & Air-cooled scroll chiller
Office	Midea Headquarter Building	China	Shunde	Centrifugal chiller & Water-cooled screw chiller & Air-cooled scroll chiller & DC Inverter VRF
Office	Kamco Office Building	Qatar	Doha	Digital Scroll VRF
Office	VTC Digital Television Office Building	Vietnam	Ha Noi	FCU & Duct
Hotel&Restaurant	Quentin Hotel	Germany	Berlin	DC Inverter VRF
Hotel&Restaurant	Alara Hotel ( Five Star )	Turkey	Marmaris	Digital Scroll VRF
Hotel&Restaurant	Smart Suites Royal Hotel ( Five Star )	Colombia	Barranquilla	DC Inverter VRF
Hotel&Restaurant	Chedi Hotel ( Five Star )	Oman	Muscat	Digital scroll VRF
Hotel&Restaurant	Hilton Hotel in Foshan ( Five Star )	China	Foshan	Centrifugal chiller & Water-cooled screw chiller
Hotel&Restaurant	Sheraton Bandara Resort Hotel ( Five Star )	Indonesia	Jakarta	Air-cooled screw chiller
Hotel&Restaurant	Madina City Hotel ( Five Star )	K.S.A.	Madina	Tropical Digital Scroll VRF
Residential Buildings	Ain Al Fayda Emirati Housing Development (2000 Villas)	U.A.E.	Al Ain	Tropical Digital Scroll VRF
Residential Buildings	Garden City	Iraq	Sulaymaniyah	DC Inverter VRF
Residential Buildings	The Royale Springhill Residences	Indonesia	Jakarta	Digital Scroll VRF & ATW Heat Pump
Residential Buildings	Royal City	Vietnam	Ha Noi	DC Inverter VRF ( V4+ , V4+K )
Governmental Project	Presidential Palace of Tirana	Albania	Tirana	Air-cooled scroll chiller
Governmental Project	Assembleia Legislativa de Salvador Office	Brazil	Salvador	DC Inverter VRF
Governmental Project	The Regional Parliament Office of Sumatera Utara	Indonesia	Surabaya Utara	Air-cooled screw chiller
Governmental Project	Dispatching Center (Northern Area #3)	Thailand	Bangkok	Digital Scroll VRF
Governmental Project	Police Station (Sanzona +Vake+ Vazisubani)	Georgia	Tbilisi	Air-cooled scroll chiller
Governmental Project	HBL Bank	Pakistan	Karachi	Digital Scroll VRF
Governmental Project	Ha Noi Women Union	Vietnam	Ha Noi	DC Inverter VRF
Governmental Project	Rail Bhavan	India	New Delhi	Digital Scroll VRF
Transportation	Dubai Metro Station	U.A.E.	Dubai	Tropical Digital Scroll VRF
Transportation	Beijing Airport T3 Terminal	China	Beijing	Centrifugal Chiller & Water-cooled screw chiller
Transportation	Jakarta International Airport	Indonesia	Jakarta	Air-cooled screw chiller
Transportation	Mozambique Capital Airport	Mozambique	Maputo	Air-cooled screw chiller & DC Inverter VRF
Transportation	Mauritius Sir Seewoosagur Ramgoolam Airport	Mauritius	Port Louis	FCU (Cassette & Duct & Floor-standing type)
Sports	2014 FIFA World Cup Brazil Beira Rio Stadium	Brazil	Porto Alegre	DC Inverter VRF ( Heat Recovery )
Sports	Guangzhou Asian Games Stadium	China	Guangzhou	DC Inverter VRF
Sports	The 27th Southeast Asian Games Stadium	Myanmar	Nay Pyi Taw	Water-cooled screw chiller ( Heat Recovery )
Hospital&Healthcare	Orpea Nursing Homes	France	Nantes	DC Inverter VRF
Hospital&Healthcare	Konya Karatay Belediyesi Hospital	Turkey	Konya	DC Inverter VRF
Hospital&Healthcare	Naseem Jeddah Hospital	K.S.A.	Jeddah	Tropical Digital Scroll VRF
Hospital&Healthcare	The First People's Hospital of Guangzhou	China	Guangzhou	Water-cooled screw chiller & ATW Heat Pump
Hospital&Healthcare	Siriraj Hospital	Thailand	Bangkok	DC Inverter VRF
Culture Facilities	Handan Cultural Arts Center	China	Handan	Centrifugal chiller & Water-cooled screw chiller
Culture Facilities	Shanghai EXPO Venue	China	Shanghai	Centrifugal chiller
Culture Facilities	Expo Park Nature & Life Pavilion	South Korea	Deajeon	DC Inverter VRF
Education	Faculdade de tecnologia victor civita	Brazil	Sao Paulo	DC Inverter VRF
Education	SETIF University	Algeria	Ercan	Digital Scroll VRF
Education	RAK College of Dental Sciences	U.A.E.	RAK	Tropical Digital Scroll VRF
Education	Xiamen University (Xiangan Campus)	China	Xiamen	DC Inverter VRF
Education	Buriram Rajabhat University	Thailand	Buriram	Digital Scroll VRF
Industry	Avantha Group Transformer Factory	Hungary	Budapest	Digital Scroll VRF
Industry	Castagna Univel Factory	Italy	Milan	Air-cooled scroll chiller
Industry	Costra Factory	U.A.E.	Dubai	Tropical Air-cooled screw chiller
Industry	MEIKO Factory	Vietnam	Ha Noi	AHU





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  
for quality assurance.  
NO.01 100 019209



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

## Dealer information

### Commercial Air Conditioner Business Units Midea Group

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Note: The data in this book may be changed without notice for further improvement  
on quality and performance.

Ver.2014.12