

DISCOVER  
easyCOMFORT

Midea Group  
Midea Building Technologies Division

2C202502

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Midea reserves the right to change the specifications of the product, and to withdraw or replace products without prior notification or public announcement. Midea is constantly developing and improving its products.



# Water Cooled Scroll Chiller (Heat Pump)

# MBT

Midea Building Technologies (MBT) is a key division of the Midea Group, a leading provider of comprehensive, intelligent-building solutions including energy sources, elevators, control systems and heating, ventilation and air conditioning.

Built on a foundation of innovation, Midea has emerged as a global leader in the HVAC and building management industry. Our unwavering dedication to research and development coupled with an extensive network of global partners has given birth to cutting-edge technologies that provide innovative solutions to our customers around the world.

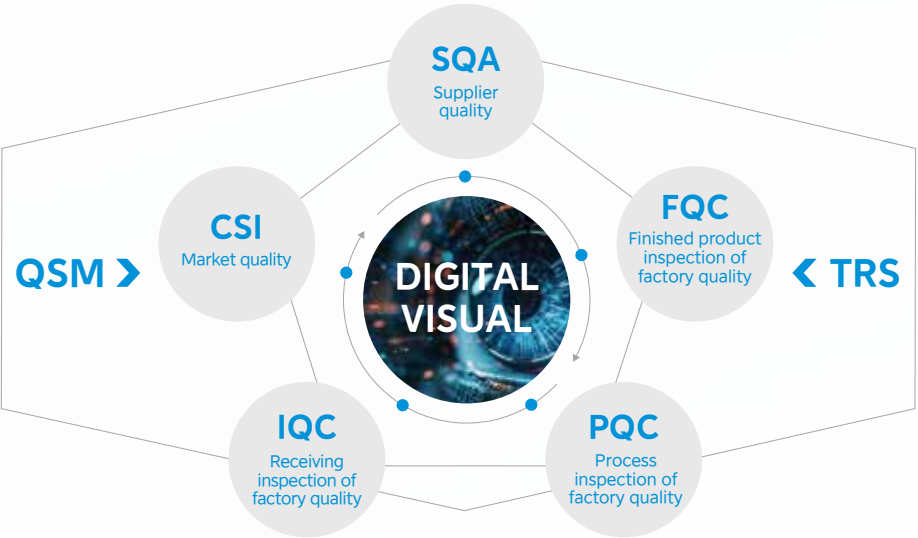
Committed to providing users with intelligent, digital, low carbon overall building solution



Over 100 testing labs cover a wide range of real application scenarios.



All products can be visualized and digitalized throughout entire process.



4 global manufacturing locations assure timely delivery with less sensitivity to supply chain interruption.



# MIDEA LARGE TONNAGE CHILLER HISTORY





# INTERNATIONAL SERVICE MANAGEMENT

Our International Service Management (ICS) system provides customers with professional technical support. Through ICS, you can download product information/documentation, get help with technical questions and troubleshooting, submit complaints and order parts using our self-service interface.

🔍 > <https://ics.midea.com> 🗣️ 📷



## My order

Inquire about spare parts from an exploded view and place orders for spare parts directly in ICS.

## Document inquiry and download

View or download product technical documentation online, such as catalogs, images, training PPTs and other assets.

## Technical inquiry & FAQ

Ask technical questions online and receive a prompt response from our technicians or browse the FAQ for answers to commonly asked questions.

## Troubleshooting

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

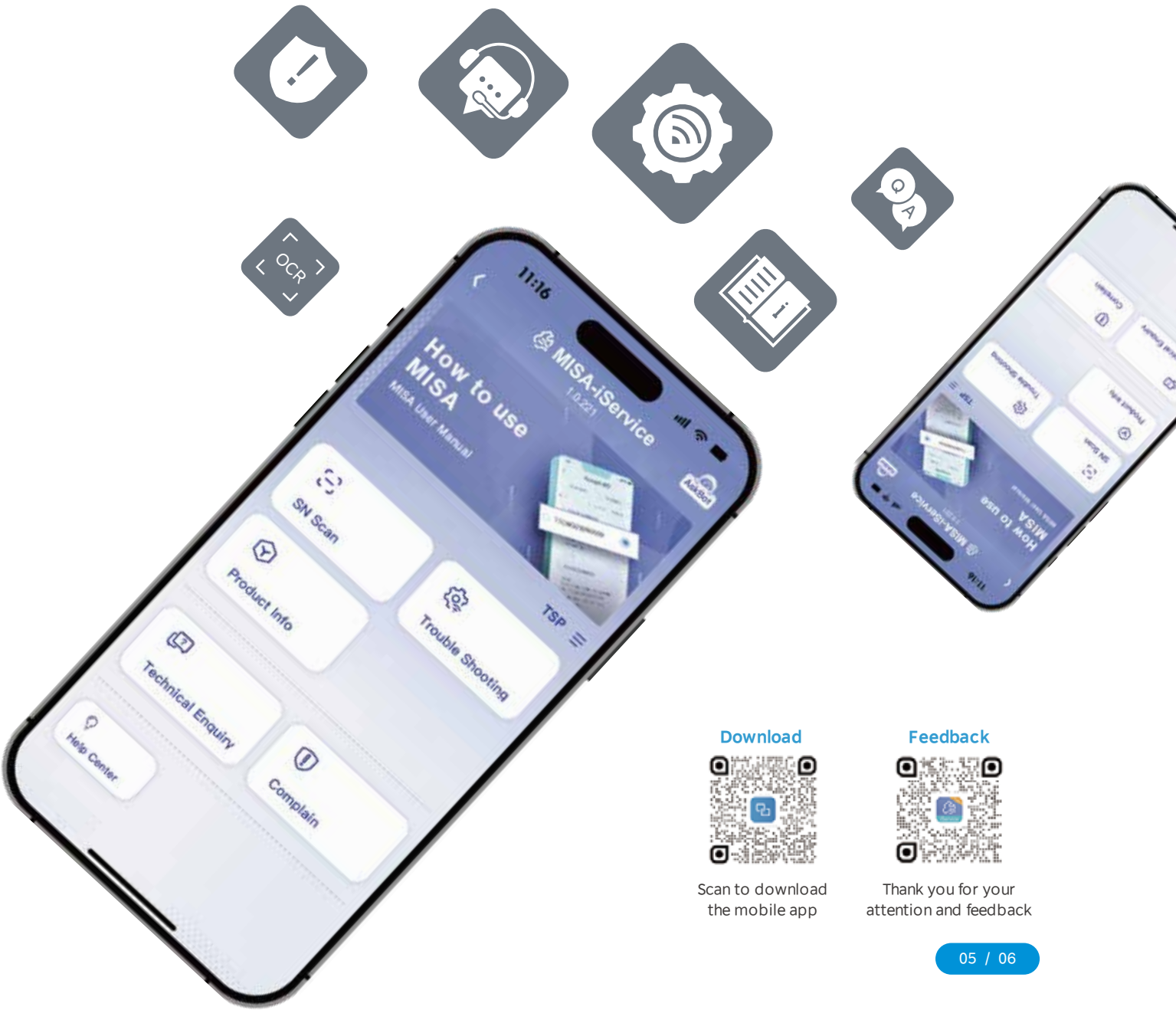
## Complain

Submit product quality complaints online, and our after-sales engineers will respond promptly.

# MOBILE INTELLIGENCE SERVICE APP

The Mobile Intelligence Service App (MISA) is the mobile version of ICS and features the same functionality. MISA often makes getting technical support timelier and more convenient.

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**Download**  
Scan to download the mobile app

**Feedback**  
Thank you for your attention and feedback



# GLOBAL BULK WAREHOUSE LAYOUT OVERVIEW

## Available Spare Parts centers 30

### Europe (10):

Italy/Germany/France/UK/Spain/Poland/Hungary/Greece/Turkey/Romania

### Asia-Africa (10):

China/Russia/Georgia/UAE/Egypt/Uzbekistan/India/South Africa/Iraq/Qatar

### Latin America (5):

Mexico/Puerto Rico/Venezuela/Brazil/Australia

### South-East Asia (5):

Vietnam/Thailand/Malaysia/Indonesia/Philippines

### Europe

- Italy
- Germany
- France
- Hungary
- UK
- Poland
- Turkey
- Spain
- Romania
- Greece

### Southeast Asia

- Vietnam
- Indonesia
- Thailand
- Malaysia
- Philippines

### Asia and Africa

- China
- Russia
- Georgia
- Egypt
- South Africa
- UAE
- Qatar
- Iraq
- India
- Uzbekistan

### Australia

- Australia

### Latin America

- Puerto Rico
- Mexico
- Venezuela
- Brazil

# Water Cooled Scroll Chiller (Heat Pump)

Midea water cooled scroll chillers (heat pumps) leverage our 50+ years of experience in designing and manufacturing chillers. With a 1 kW input power, they can output over 5 kW of cooling or heating capacity while maintaining lower operating costs compared to traditional air conditioning units. Renowned for their stability and reliability, these systems feature intelligent control, easy installation, and eco-friendly performance. They are ideal for a variety of small and medium-sized central cooling/heating applications, including hotels, factories, clubs, renovation projects, and buildings without indoor equipment rooms.



## Key advantages

  
Stylish appearance

  
Energy saving

  
Energy-regulation technology

  
Eco-friendly refrigerant

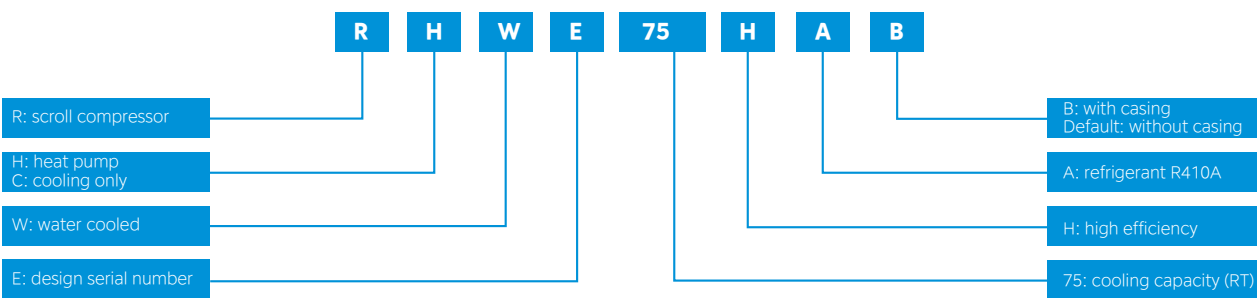
  
Stable performance

  
Modular design

  
Flexible installation

  
Intelligent control

## Nomenclature



# FEATURES

## Energy saving

### Hermetic scroll compressor

Innovative scroll plate features a floating seal design, minimizing wear and leakage.

#### High efficiency

Features an innovative scroll design but without contact and wear, reducing friction inside the compressor while improving efficiency.

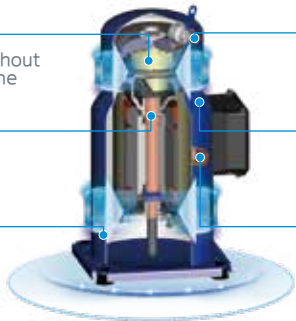
#### Reduced maintenance costs

Eco-friendly lead-free polymer bearings ensure stable operation while reducing maintenance costs.

#### Low noise and vibration

A soundproof enclosure installed at the bottom of the compressor reduces noise by 10% while also minimizing vibration.

Note: Actual compressor may vary.



#### Stable performance

Compressor outlet is equipped with a check valve to prevent backflow of refrigerant while improving reliability.

#### Maintenance free

Thanks to the fully enclosed design, the unit does not require maintenance.

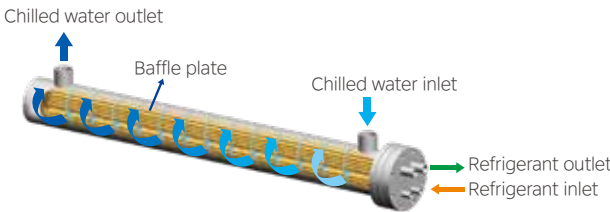
#### Long service life

Suction-cooled motor improves efficiency while lengthening compressor service life.

### High efficiency shell-and-tube heat exchanger on two sides

The system features a DX-type evaporator, where refrigerant flows into inner-threaded heat exchange tubes to facilitate oil return and enhance heat transfer efficiency. The increased surface area provided by the threaded tubing, combined with a turbulent water flow design, maximizes heat exchange performance, resulting in improved overall efficiency.

The condenser features a large-diameter heat exchange tube, which allows for greater tolerance of varying water quality, simplifying internal cleaning and maintenance. Its advanced super-cooling design boosts heat exchanger efficiency, optimizing overall system performance.



Shell-and-tube evaporator



Shell-and-tube condenser

### High-precision EXV for more accurate temperature control

An innovative electronic expansion valve provides precise control over refrigerant flow, switching from fully closed to fully open in just a few seconds, which prevents static superheating. It also enables a light-load start, reducing heat loss during shutdown, and enhancing the unit's stability, reliability, and energy efficiency, lowering operational costs.



Refrigerant control hysteresis is eliminated ensuring optimal compressor running condition.

VS



Traditional thermal expansion valves are characterized by a lag in refrigerant control, leading to unit instability and high operating costs.

## Stable and reliable

### Independent operation in two systems for enhanced system reliability

The failure of one system of a unit does not affect the operation of the whole unit. In a multi-unit system, a single unit malfunction does not disrupt overall operation, eliminating the need for backup units and reducing costs. Air conditioning will continue uninterrupted until service personnel arrive, making this system particularly beneficial for users in remote areas.

Uninterrupted operation in case of single system failure



### Automatic run-time balancing for longer product life

An automatic run-time balancing function activates single and multiple units on a rotating basis, ensuring equal run time, reducing failure rates, and extending the service life of each unit.

### Multiple built-in safeguards

A progressive start feature minimizes system shock from inrush currents during startup. Additional safeguards include a high-pressure switch, overload protection, and phase protection devices for the power supply. An integrated operation control device triggers an alarm in the event of system failure.



Compressor high/low-pressure protection



Power supply phase reverse/loss protection



Anti-freezing protection in running mode



Over-/under-voltage protection



Frequent start protection



Compressor over-current protection



Compressor discharge temperature protection



Unit overheating protection



Low water flow rate protection



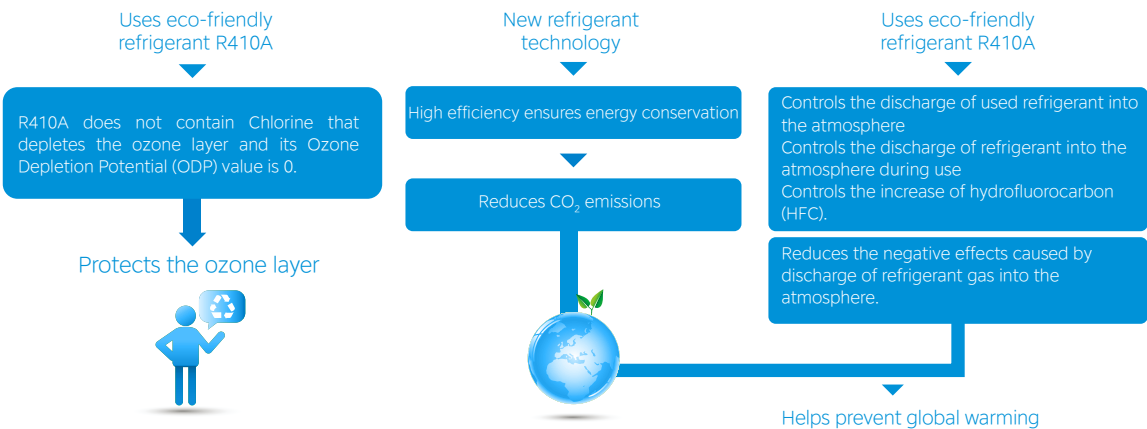
Sensor fault protection



# FEATURES

## Eco-friendly and silent operation

Eco-friendly R410A is chlorine free and has an Ozone Depletion Potential (ODP) value of 0. The hermetic compressor and casing ensure ultra-quiet operation as low as 64 dB(A).



## Easy-to-install design requiring no equipment room

### Fits into standard freight elevator

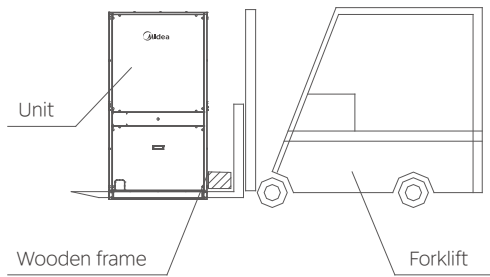
Compact design enables transport in a standard freight elevator and into old equipment rooms and basements without dismantling the existing building structure.



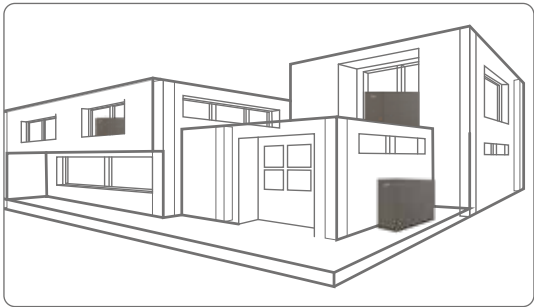
Note: To be evaluated based on the actual dimensions of the unit and freight elevator.

### Optimized design for easy transport

An innovative base design enables the series of units to be transported using a manual forklift, eliminating the need for professional lifting equipment and reducing installation costs.



Forklift Handling Diagram



### Flexible installation

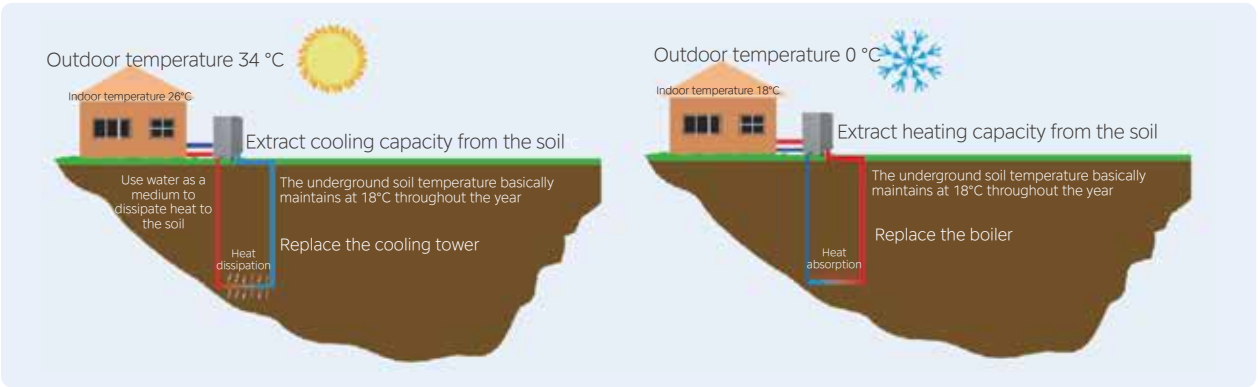
With a external casing, the unit does not require a dedicated equipment room and can be installed indoors, outdoors, or on rooftops. Additionally, its design allows for units to be placed side-by-side without spacing, saving installation space.

### Easy expandability

During peak hours or hot summer days, Midea's water cooled scroll units can easily be expanded, providing additional cooling supply and system stability.

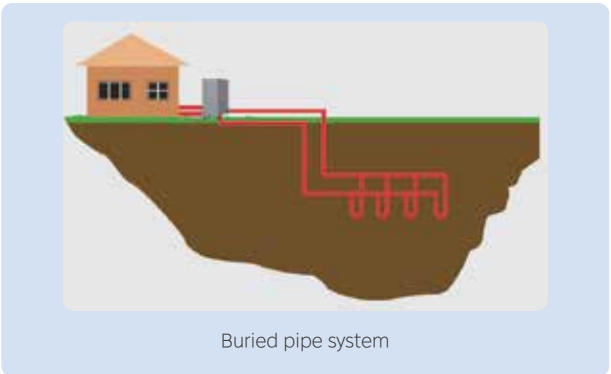
## Multiple system application modes

Since the low-temperature surface heat source of the earth is not affected by atmospheric temperature, it remains relatively stable throughout the year. In winter, water (ground) source heat pump units can obtain heat from shallow soil and surface water energy to produce hot water for heating and other purposes; in summer, water (ground) source heat pump units can discharge the indoor heat to the shallow soil and surface water to achieve cooling.



### Buried-pipe ground-source heat pump system

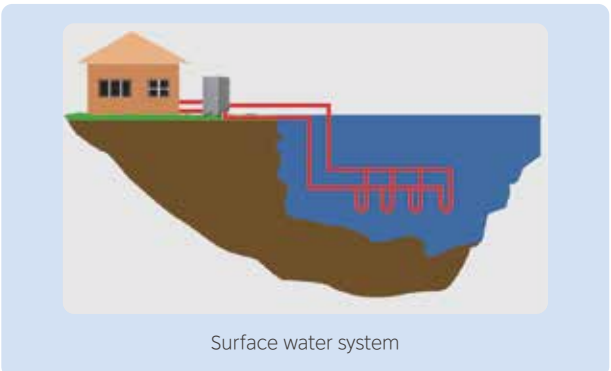
Underground piping exchanges heat with the ground to produce heating and cooling. These specialized heat exchange pipes can be buried in a vertical configuration for small sites or horizontally for larger sites.



Buried pipe system

### Surface water-source heat pump system

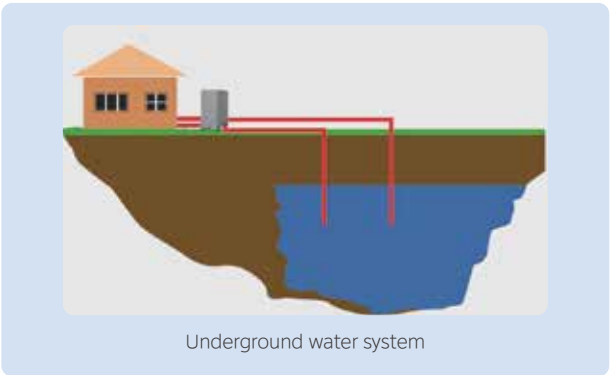
Heat exchange pipes are installed in surface water sources such as lakes or ponds near the building, where they exchange heat with the water to provide efficient heating and cooling for the air conditioning system.



Surface water system

### Underground water-source heat pump system

Groundwater can be directly used as a cold and heat source for the air conditioning system. The temperature of the groundwater loop remains stable throughout the year, typically ranging between 12°C and 15°C.



Underground water system

# FEATURES

## Intelligent control

### Advanced microcomputer control board, real-time adjustment

All units are equipped with Midea's proprietary microcomputer control board, which supports advanced operating functions and comprehensive safety features. The high-speed processing chip quickly gathers system operating parameters and executes intelligent control commands, ensuring enhanced stability and optimized performance.



Microcomputer control board

### Wired controller

- Main functions:
- Touch key operation
  - Parameter settings
  - LCD display
  - Multiple timers
  - Real-time clock function
  - Power-off memory function



Note:  
Wired controller included as standard equipment. A color touch screen is also available as an option.

### Advanced wired controller

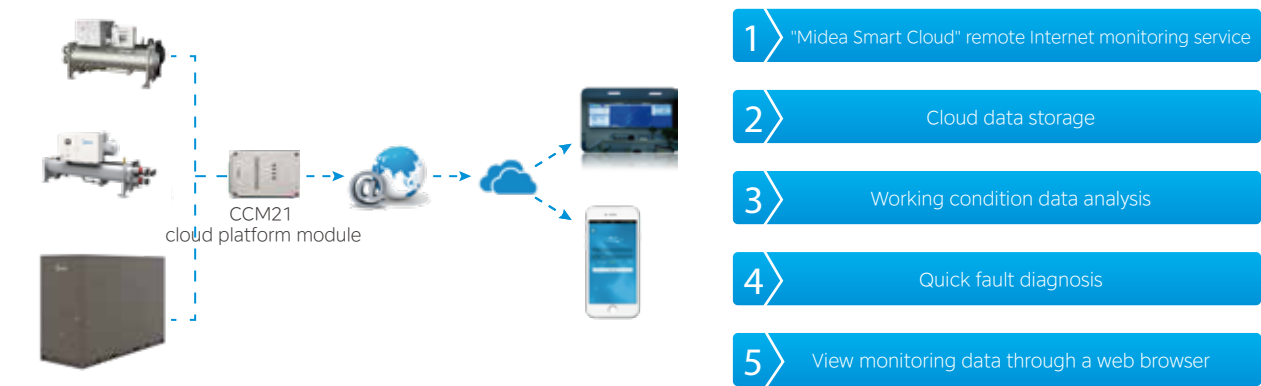
A single wired controller can control up to 16 units including the start/stop sequence. The wired controller will also display operation status along with any system faults.



### Midea Smart Cloud platform (optional)

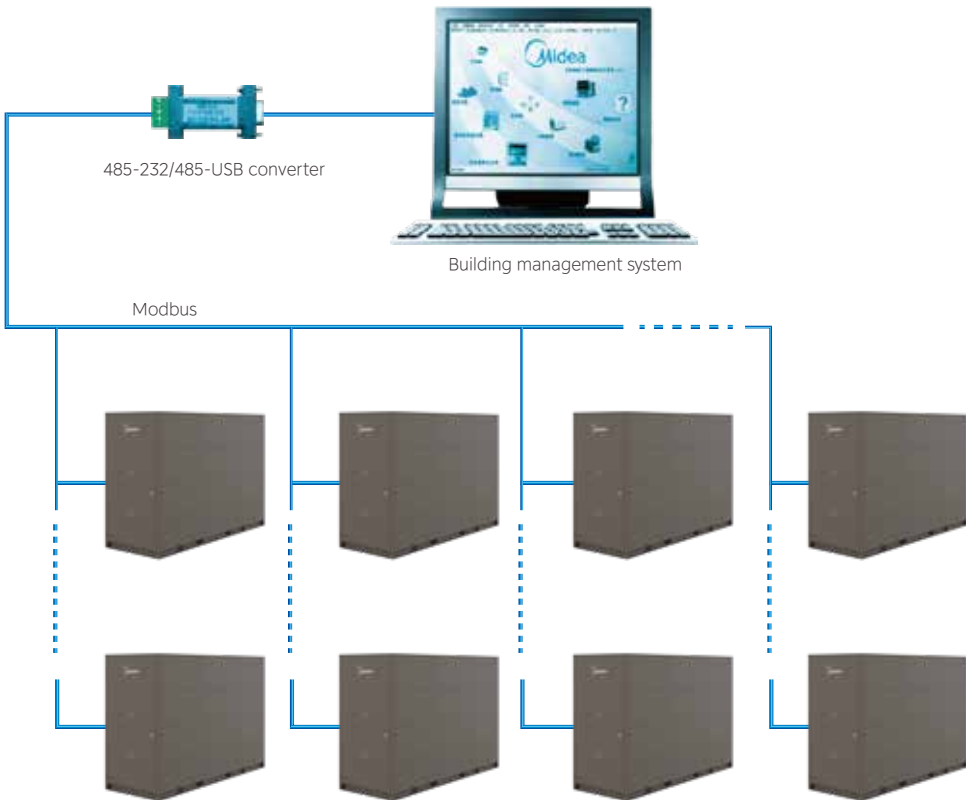


Midea's proprietary internet-based remote monitoring system offers customers a suite of cloud-based tools powered by advanced technology. By connecting their Midea air conditioning system via the IMU smart data acquisition terminal, customers receive professional support for remote fault diagnosis, analysis, and early failure warnings to ensure optimal equipment performance. Real-time monitoring data can be accessed through any web browser, providing customers with up-to-the-minute insights into their system's operation.



### Building management system (optional)

Units are equipped with a Modbus interface which allows gateway access to commonly used building management systems (BMS). Control up to 128 units.



# Specifications

## Cooling operating range

Heat source side				User side			
Buried pipe type		Water-loop type				Underground water type	
Water inlet temperature (°C)	Water inlet/outlet temperature difference (°C)	Water inlet temperature (°C)	Water inlet/outlet temperature difference (°C)	Water inlet temperature (°C)	Water inlet/outlet temperature difference (°C)	Water outlet temperature (°C)	Water inlet/outlet temperature difference (°C)
10 to 40	2.5 to 8	20 to 40	2.5 to 8	10 to 25	8 to 13	5 to 15	2.5 to 8

## Heating operating range

Heat source side				User side			
Buried pipe type		Water-loop type				Underground water type	
Water inlet temperature (°C)	Water inlet/outlet temperature difference (°C)	Water inlet temperature (°C)	Water inlet/outlet temperature difference (°C)	Water inlet temperature (°C)	Water inlet/outlet temperature difference (°C)	Water inlet temperature (°C)	Water inlet/outlet temperature difference (°C)
5 to 25	2.5 to 8	15 to 30	2.5 to 8	10 to 25	4 to 10	35 to 55	3.5 to 9

Notes:  
1. If the conditions of use are beyond the operating scope, please contact Midea.  
2. When buried pipes are used, the water temperature may reach or fall below 0°C. In this case, add glycol to the water to prevent freezing. Contact Midea for advice on the concentration of the glycol and performance correction.

## Parameters of RCWE-HA(B) cooling only unit

Model			Unit	RCWE50HA(B)	RCWE75HA(B)	RCWE110HA(B)	RCWE145HA(B)
Nominal Parameter	Cooling capacity		kW	155.0	242.5	362.0	481.0
	Cooling power input		kW	29.0	45.0	67.5	89.8
	Cooling COP		kW/kW	5.34	5.38	5.36	5.35
	IPLV		kW/kW	6.42	6.45	6.44	6.43
Sound pressure level			dB(A)	64	65	67	68
Compressor	Type		/	Hermetic scroll compressor			
	Qty	System 1	/	1	1	2	2
		System 2	/	1	1	1	2
Energy regulation mode			/	50%/100%	50%/100%	33%/67%/100%	25%/50%/75%/100%
Refrigerant	Name		/	R410A			
	Charge amount	System 1	kg	8.5	16	36	34
		System 2	kg	8.5	16	18	34
Power supply			/	380V-3Ph-50Hz			
Safety protection			/	High/low pressure/high discharge temperature/water flow switch/anti-freeze /motor overload/under-voltage/phase loss/phase sequence/oil heater/safety valve			
Start current			A	305.0	485.0	557.0	629.0
Max. operating current			A	90.0	144.0	216.0	288.0
Evaporator	Type		/	Shell and tube			
	Cooling water flow		m³/h	26.66	41.71	62.26	82.73
	Cooling water pressure drop		kPa	39.0	61.0	60.0	49.0
	Connection pipe diameter		mm	DN80	DN80	DN125	DN125
Condenser	Type		/	Shell and tube			
	Cooling water flow		m³/h	33.33	52.14	77.83	103.4
	Cooling water pressure drop		kPa	22.0	73.0	63.0	70.0
	Connection pipe diameter		mm	DN80	DN80	DN125	DN125
Unit dimensions	RCWE-HA series	Length	mm	1960	2520	2490	3080
		Width	mm	750	750	1050	1050
		Height	mm	1780	1860	2030	2030
	RCWE-HAB series	Length	mm	2010	2540	2540	3130
		Width	mm	750	750	1050	1050
		Height	mm	1800	2040	2040	2040
Shipping weight	RCWE-HA series		kg	900	1100	1950	2250
	RCWE-HAB series		kg	1000	1200	2100	2450
Operating weight	RCWE-HA series		kg	1020	1260	2200	2500
	RCWE-HAB series		kg	1120	1360	2350	2700

Notes:  
1. Cooling: the chilled water outlet temperature is 7° C and the water flow is the cooling capacity × 0.172m³/(h·kW), the cooling water inlet temperature is 30° C, the cooling water flow = cooling capacity × 0.215m³/(h·kW).  
2. The design's max working pressure of water side heat exchanger is 1.0 MPa and a victaulic connection is used. When ordering, specify whether a pressure higher than 1.0 MPa is needed and also if you require other types of connections.  
3. As a result of the continuous improvement of the product, the above parameters may be changed. Please refer to the product nameplate and in-kind.

## Buried pipe parameters of RHWE-HA(B) heat pump unit

Model			Unit	RHWE50HA(B)	RHWE75HA(B)	RHWE110HA(B)	RHWE145HA(B)
Nominal parameter	Cooling capacity		kW	164.5	254.5	379.0	506.0
	Cooling power input		kW	28.2	43.6	65.0	86.5
	Cooling EER		kW/kW	5.83	5.83	5.83	5.85
	Heating capacity		kW	170.0	268.5	400.0	531.0
	Heating power input		kW	34.6	54.3	81.3	108.4
	Heating COP		kW/kW	4.91	4.94	4.92	4.89
Sound pressure level			dB(A)	64	65	67	68
Compressor	Type		/	Hermetic scroll compressor			
	Qty	System 1	/	1	1	2	2
		System 2	/	1	1	1	2
Energy regulation mode			/	50%/100%	50%/100%	33%/67%/100%	25%/50%/75%/100%
Refrigerant	Name		/	R410A			
	Charge amount	System 1	kg	8.5	16	36	34
		System 2	kg	8.5	16	18	34
Power supply			/	380V-3Ph-50Hz			
Safety protection			/	High/low pressure/high discharge temperature/water flow switch/anti-freeze /motor overload/under-voltage/phase loss/phase sequence/oil heater/safety valve			
Start current			A	305.0	485.0	557.0	629.0
Max. operating current			A	90.0	144.0	216.0	288.0
Evaporator	Type		/	Shell and tube			
	Cooling water flow		m³/h	28.29	43.77	65.19	87.03
	Cooling water pressure drop		kPa	43.0	63.0	63.0	58.0
	Heating water flow		m³/h	35.37	54.72	81.49	108.8
	Heating water pressure drop		kPa	65.0	99.0	98.0	81.0
	Connection pipe diameter		mm	DN80	DN80	DN125	DN125
Condenser	Type		/	Shell and tube			
	Cooling water flow		m³/h	35.37	54.72	81.49	108.8
	Cooling water pressure drop		kPa	25.0	80.0	68.0	78.0
	Heating water flow		m³/h	28.29	43.77	65.19	87.03
	Heating water pressure drop		kPa	17.0	54.0	46.0	51.0
	Connection pipe diameter		mm	DN80	DN80	DN125	DN125
Unit dimensions	RHWE-HA series	Length	mm	1960	2520	2490	3080
		Width	mm	750	750	1050	1050
		Height	mm	1780	1860	2030	2030
	RHWE-HAB series	Length	mm	2010	2540	2540	3130
		Width	mm	750	750	1050	1050
		Height	mm	1800	2040	2040	2040
Shipping weight	RHWE-HA series		kg	900	1100	1950	2250
	RHWE-HAB series		kg	1000	1200	2100	2450
Operating weight	RHWE-HA series		kg	1020	1260	2200	2500
	RHWE-HAB series		kg	1120	1360	2350	2700

Notes:  
1. Cooling: the user-side water outlet temperature is 7°C and the user-side water flow = buried pipe cooling capacity × 0.172m³/(h·kW); the heat source side water inlet temperature is 25°C, the heat source side water flow = buried pipe cooling capacity × 0.215m³/(h·kW); Heating: the heat source side water inlet temperature is 10°C, the water flow is the same as that of the cooling mode, the user-side water outlet temperature is 45°C and the water flow is same as the user-side water flow of the cooling mode.  
2. The design's max working pressure of water-side heat exchanger is 1.0 MPa and a victaulic connection is used. When ordering, specify whether a pressure higher than 1.0 MPa is needed and also if you require other types of connections.  
3. As a result of the continuous improvement of the product, the above parameters may be changed. Please refer to the product nameplate and in-kind.



Underwater parameters of RHWE-HA(B) heat pump unit

Model			Unit	RHWE50HA(B)	RHWE75HA(B)	RHWE110HA(B)	RHWE145HA(B)
Nominal parameter	Cooling capacity		kW	172.0	268.0	398.0	533.0
	Cooling power input		kW	26.3	40.7	60.3	80.9
	Cooling EER		kW/kW	6.54	6.58	6.60	6.58
	Heating capacity		kW	176.0	275.0	406.0	544.0
	Heating power input		kW	34.4	53.8	80.3	107.2
	Heating COP		kW/kW	5.11	5.11	5.05	5.07
Sound pressure level			dB(A)	64	65	67	68
Compressor	Type		/	Hermetic scroll compressor			
	Qty	System 1	/	1	1	2	2
		System 2	/	1	1	1	2
Energy regulation mode			/	50%/100%	50%/100%	33%/67%/100%	25%/50%/75%/100%
Refrigerant	Name		/	R410A			
	Charge amount	System 1	kg	8.5	16	36	34
		System 2	kg	8.5	16	18	34
Power supply			/	380V-3Ph-50Hz			
Safety protection			/	High/low pressure/high discharge temperature/water flow switch/anti-freeze /motor overload/under-voltage/phase loss/phase sequence/oil heater/safety valve			
Start current			A	305.0	485.0	557.0	629.0
Max. operating current			A	90.0	144.0	216.0	288.0
Evaporator	Type		/	Shell and tube			
	Cooling water flow		m³/h	29.58	46.10	68.46	91.68
	Cooling water pressure drop		kPa	47.0	73.0	71.0	63.0
	Heating water flow		m³/h	18.06	28.14	41.79	55.97
	Heating water pressure drop		kPa	19.0	29.0	28.0	24.0
	Connection pipe diameter		mm	DN80	DN80	DN125	DN125
Condenser	Type		/	Shell and tube			
	Cooling water flow		m³/h	18.06	28.14	41.79	55.97
	Cooling water pressure drop		kPa	8.0	25.0	21.0	23.0
	Heating water flow		m³/h	29.58	46.10	68.46	91.68
	Heating water pressure drop		kPa	18.0	59.0	50.0	56.0
	Connection pipe diameter		mm	DN80	DN80	DN125	DN125
Unit dimensions	RHWE-HA series	Length	mm	1960	2520	2490	3080
		Width	mm	750	750	1050	1050
		Height	mm	1780	1860	2030	2030
	RHWE-HAB series	Length	mm	2010	2540	2540	3130
		Width	mm	750	750	1050	1050
		Height	mm	1800	2040	2040	2040
Shipping weight	RHWE-HA series		kg	900	1100	1950	2250
	RHWE-HAB series		kg	1000	1200	2100	2450
Operating weight	RHWE-HA series		kg	1020	1260	2200	2500
	RHWE-HAB series		kg	1120	1360	2350	2700

Notes:  
1. Cooling: the user-side water outlet temperature is 7°C and the user-side water flow = underground water cooling capacity × 0.172m³/(h·kW); the heat source side inlet temperature is 18°C, the heat source side flow = underground water cooling capacity × 0.103m³/(h·kW); Heating: the heat source side water inlet temperature is 15°C, the water flow is same as that of the cooling mode, the user-side water outlet temperature is 45°C and the water flow is same as the user-side water flow of the cooling mode.  
2. The design's max working pressure of water-side heat exchanger is 1.0 MPa and a victaulic connection is used. When ordering, specify whether a pressure higher than 1.0 MPa is needed and also if you require other types of connections.  
3. As a result of the continuous improvement of the product, the above parameters may be changed. Please refer to the product nameplate and in-kind.

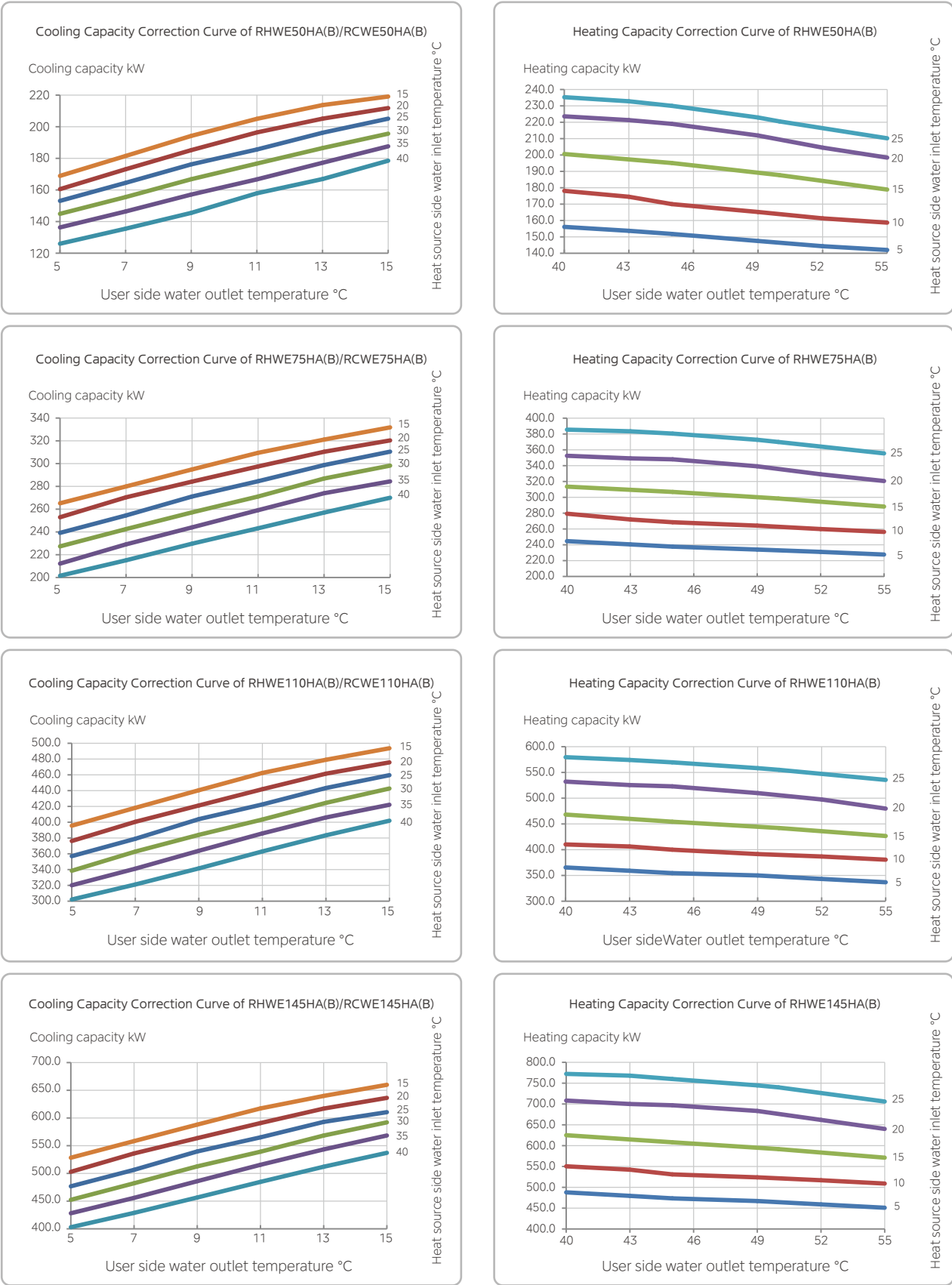
Water-loop parameters of RHWE-HA(B) heat pump unit

Model			Unit	RHWE50HA(B)	RHWE75HA(B)	RHWE110HA(B)	RHWE145HA(B)	
Nominal parameter	Cooling capacity		kW	155.0	242.5	362.0	481.0	
	Cooling power input		kW	29.0	45.0	67.5	89.8	
	Cooling EER		kW/kW	5.34	5.38	5.36	5.35	
	Heating capacity		kW	219.0	350.0	526.0	700.0	
	Heating power input		kW	37.9	60.5	90.3	121.0	
	Heating COP		kW/kW	5.77	5.78	5.82	5.78	
Sound pressure level			dB(A)	64	65	67	68	
Compressor	Type		/					Hermetic scroll compressor
	Qty	System 1	/	1	1	2	2	
		System 2	/	1	1	1	2	
Energy regulation mode			/	50%/100%	50%/100%	33%/67%/100%	25%/50%/75%/100%	
Refrigerant	Name		/					R410A
	Charge amount	System 1	kg	8.5	16	36	34	
		System 2	kg	8.5	16	18	34	
Power supply			/					380V-3Ph-50Hz
Safety protection			/					High/low pressure/high discharge temperature/water flow switch/anti-freeze/motor overload/under-voltage/phase loss/phase sequence/oil heater/safety valve
Start current			A	305.0	485.0	557.0	629.0	
Max. operating current			A	90.0	144.0	216.0	288.0	
Evaporator	Type		/					Shell and tube
	Cooling water flow		m³/h	26.66	41.71	62.26	82.73	
	Cooling water pressure drop		kPa	39.0	61.0	60.0	49.0	
	Heating water flow		m³/h	33.33	52.14	77.83	103.4	
	Heating water pressure drop		kPa	58.0	95.0	90.0	74.0	
	Connection pipe diameter		mm	DN80	DN80	DN125	DN125	
Condenser	Type		/					Shell and tube
	Cooling water flow		m³/h	33.33	52.14	77.83	103.4	
	Cooling water pressure drop		kPa	22.0	73.0	63.0	70.0	
	Heating water flow		m³/h	26.66	41.71	62.26	82.73	
	Heating water pressure drop		kPa	15.0	49.0	42.0	47.0	
	Connection pipe diameter		mm	DN80	DN80	DN125	DN125	
Unit dimensions	RHWE-HA series	Length	mm	1960	2520	2490	3080	
		Width	mm	750	750	1050	1050	
		Height	mm	1780	1860	2030	2030	
	RHWE-HAB series	Length	mm	2010	2540	2540	3130	
		Width	mm	750	750	1050	1050	
		Height	mm	1800	2040	2040	2040	
Shipping weight	RHWE-HA series		kg	900	1100	1950	2250	
	RHWE-HAB series		kg	1000	1200	2100	2450	
Operating weight	RHWE-HA series		kg	1020	1260	2200	2500	
	RHWE-HAB series		kg	1120	1360	2350	2700	

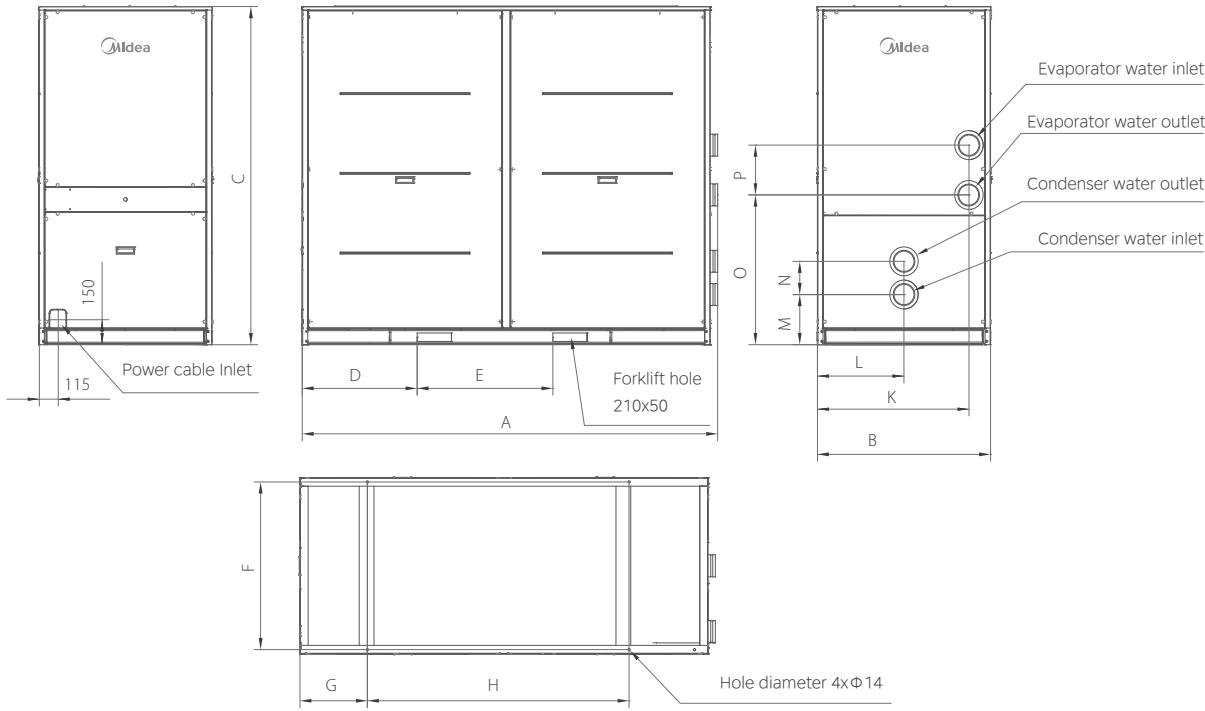
Notes:  
1. Cooling: the user-side water outlet temperature is 7°C and the user-side water flow = water-loop cooling capacity × 0.172m³/(h·kW); the heat source side water inlet temperature is 30°C, the heat source side water flow = water-loop water cooling capacity × 0.215m³/(h·kW); Heating: the heat source side water inlet temperature is 20°C, the water flow is same as that of the cooling mode, the user-side water outlet temperature is 45°C and the water flow is same as the user-side water flow of the cooling mode.  
2. The design's max working pressure of water-side heat exchanger is 1.0 MPa and a victaulic connection is used. When ordering, specify whether a pressure higher than 1.0 MPa is needed and also if you require other types of connections.  
3. As a result of the continuous improvement of the product, the above parameters may be changed. Please refer to the product nameplate and in-kind.

Installation

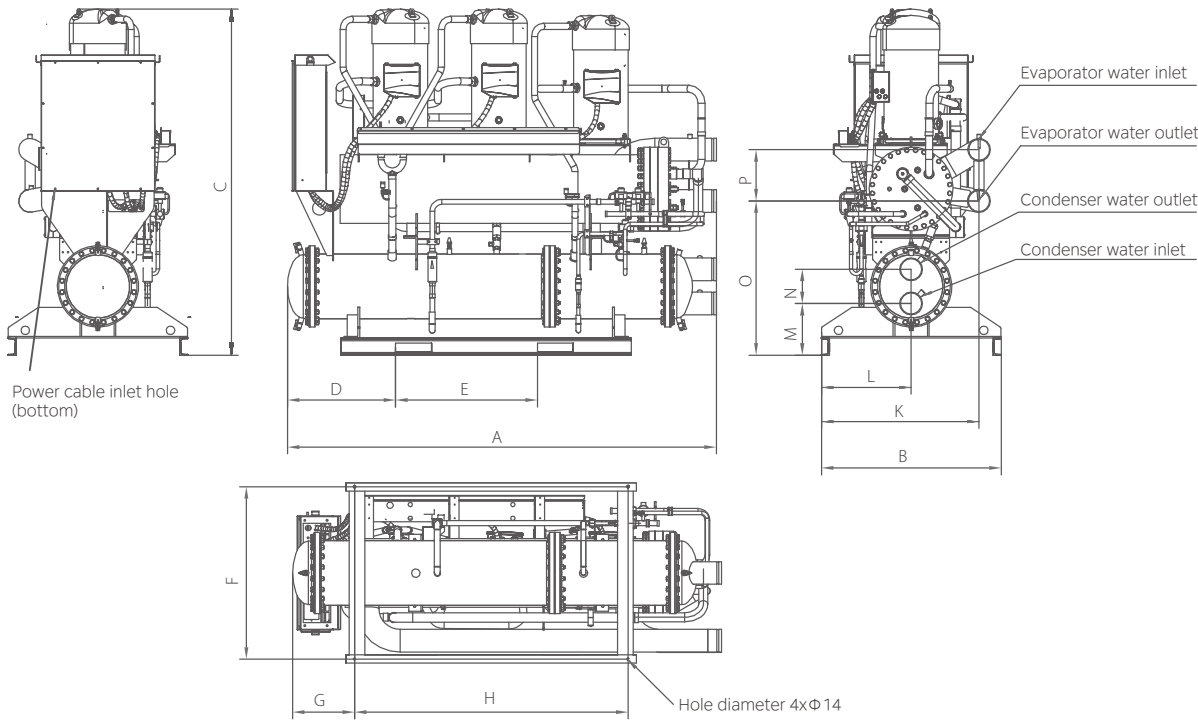
Cooling and heating capacity correction curve



Applicable model (with casing): RHWE50/75/110/145HAB (heat pump); RCWE50/75/110/145HAB (cooling only)



Applicable model (without casing): RHWE50/75/110/145HA (heat pump); RCWE50/75/110/145HA (cooling only)



Note:  
The internal structure of different models may vary. The above figure shows only the dimensions. The structure is for reference only.

Forklift and installation hole dimensions

Model	Unit: mm				
	D	E	F	G	H
RHWE50HA/RCWE50HA	420	800	705	390	1090
RHWE75HA/RCWE75HA	750	830	705	445	1600
RHWE110HA/RCWE110HA	675	830	1010	445	1600
RHWE145HA/RCWE145HA	900	830	1010	630	1600

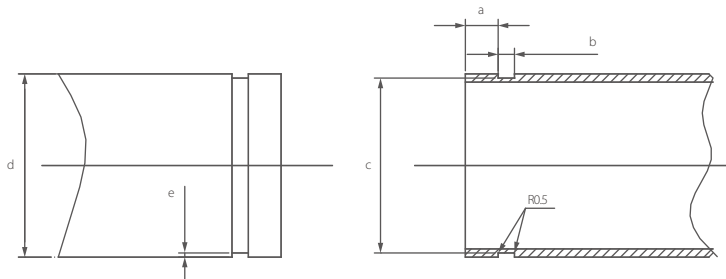
Model	Unit: mm				
	D	E	F	G	H
RHWE50HAB/RCWE50HAB	470	800	705	390	1090
RHWE75HAB/RCWE75HAB	760	830	705	445	1600
RHWE110HAB/RCWE110HAB	705	830	1010	445	1600
RHWE145HAB/RCWE145HAB	930	830	1010	630	1600

Water inlet and outlet dimensions

Model	Unit: mm					
	K	L	M	N	O	P
RHWE50HA(B)/RCWE50HA(B)	625	375	280	140	715	220
RHWE75HA(B)/RCWE75HA(B)	650	375	280	140	850	275
RHWE110HA(B)/RCWE110HA(B)	920	525	300	200	900	300
RHWE145HA(B)/RCWE145HA(B)	920	525	300	200	900	300

Water inlet and outlet pipe sizes

Model	Unit: mm			
	Cooling water inlet	Cooling water outlet	Chilled water inlet	Chilled water outlet
RHWE50HA(B)/RCWE50HA(B)	DN80	DN80	DN80	DN80
RHWE75HA(B)/RCWE75HA(B)	DN80	DN80	DN80	DN80
RHWE110HA(B)/RCWE110HA(B)	DN125	DN125	DN125	DN125
RHWE145HA(B)/RCWE145HA(B)	DN125	DN125	DN125	DN125



Water pipe size	Unit: mm				
	a	b	c	d	e
DN80	15.88	12.2	85	89x4	2
DN125	15.88	12.2	128	133x5	2.5

Note:  
All the inlet and outlet pipes of the units must be connected and firmly secured with a victaulic.

Dimensions

Model	Unit: mm		
	A	B	C
RHWE50HA/RCWE50HA	1960	750	1780
RHWE75HA/RCWE75HA	2520	750	1864
RHWE110HA/RCWE110HA	2490	1050	2030
RHWE145HA/RCWE145HA	3080	1050	2030

Model	Unit: mm		
	A	B	C
RHWE50HAB/RCWE50HAB	2010	750	1800
RHWE75HAB/RCWE75HAB	2540	750	2040
RHWE110HAB/RCWE110HAB	2540	1050	2040
RHWE145HAB/RCWE145HAB	3130	1050	2040

Recommended spring isolator (mounting hole)

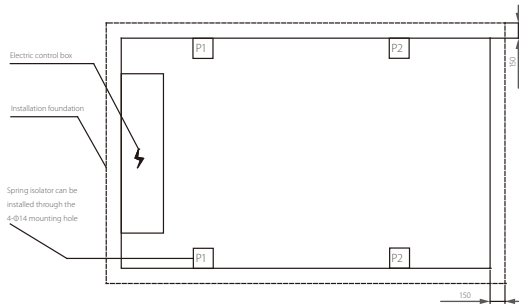
Model	Spring isolator at all points		
	P1	P2	Qty
RHWE50HA(B)/RCWE50HA(B)	MHD-320	MHD-320	4
RHWE75HA(B)/RCWE75HA(B)	MHD-450	MHD-450	4
RHWE110HA(B)/RCWE110HA(B)	MHD-730	MHD-730	4
RHWE145HA(B)/RCWE145HA(B)	MHD-850	MHD-850	4

Notes:  
1. Spring isolator is optional.  
2. Value in the spring isolator model indicates bearable weight (unit: kg). For example, "450" in "MHD-450" indicates 450kg.

Installation base requirements

The installation base should be designed by qualified professionals according to the site conditions. The installation foundation must be a cement or steel structure and should be able to bear the weight of the entire unit as well as maintenance personnel. A drain should be reserved. The horizontal and vertical error of the unit must not exceed 6mm/m. Otherwise, the unit must be adjusted until it is within the specified guidelines. Do not bury the unit chassis in the foundation concrete.

The installation diagram is shown below.

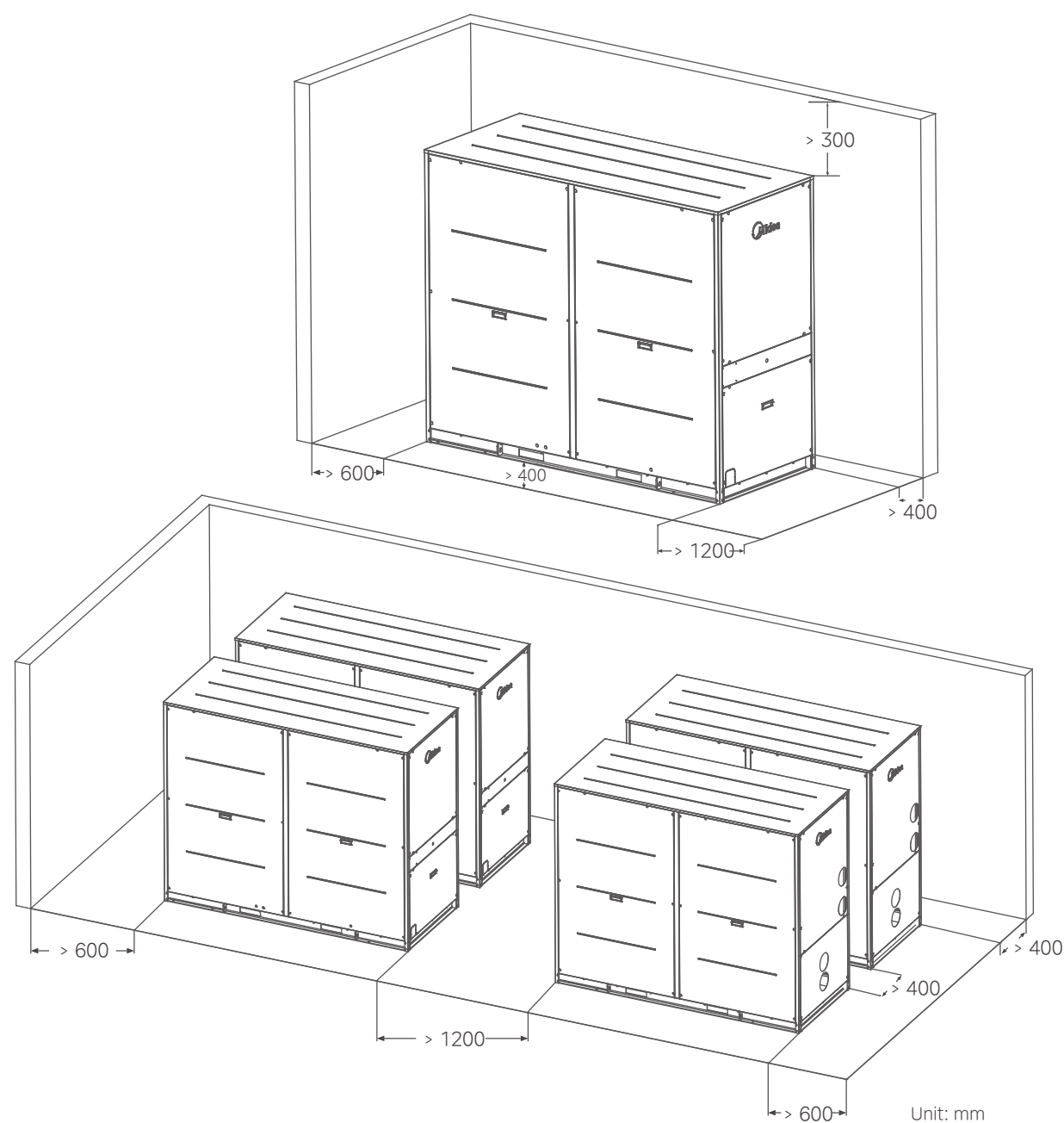


Note:  
The ground bolt positions are marked by P1 and P2 in the above illustration.



## Installation space requirements

## NOTES



Units without casings can be installed in parallel not limited by the spacing of over 400mm shown in the figure above.

Precautions:

1. Reserve a sufficient space around and above the unit to facilitate O&M.
2. Do not install the unit in a place that is exposed to sunlight, water, fire, flammable substances, corrosive gases or radiation from other heat sources.
3. Keep the unit near a power supply for convenient wiring.
4. Install the unit on solid ground, free from resonance and noise.
5. If the unit needs to operate in winter and snow may accumulate on the installation site, the unit must be installed at a height that is higher than the possible accumulated snow.