

Midea



M thermal Arctic R290





Natural refrigerant R290

R290, a highly pure propane with zero ODP value, does not have ozone depletion potential. The low GWP value further demonstrates its environmental protection characteristics, which provides great support to reach EU carbon neutrality. Thanks to the excellent thermodynamic properties of R290 and the advanced heat pump technology, with only a small amount of R290, M thermal Arctic heat pumps show great performance under cold condition. So it is a modern solution that balances ecosystem requirements with economic performance.



Wide capacity range

Heat pump

Capacity (kW)		4	6	8	10	12	14	16
Power supply	220-240V-1N-50Hz	•	•	•	•	•	•	•
	380-415V-3N-50Hz					•	•	•
Appearance								

Electric heater

Electric heater is an ideal option that balances thermal comfort with economy performance under extreme cold climate. The electric heater with 3-9kW heating capacity can be integrated inside heat pump, which is both a installation space-saving and installation cost-effective solution.



Powerful heating



55°C hot water under -25°C ambient temperature



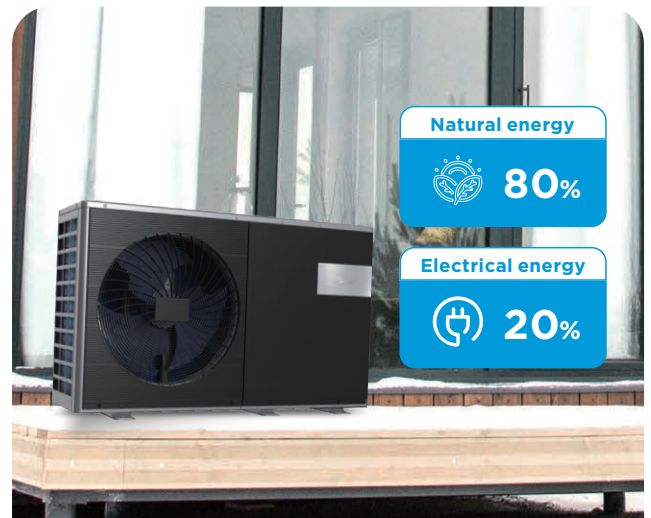
75°C hot water under -10°C ambient temperature

Ideal for replacement

The main energy source for M thermal heat pump is free-of-charge natural energy from the air. With only a small amount of electrical energy, M thermal heat pump can provide heat for your house. Compared with boiler, M thermal heat pump is a more efficient product with environmental protection. On the other hand, the powerful heating capacity of providing 75°C hot water makes it suitable for replacing or retrofitting the current heat source.



Traditional boiler heating



Heat pump heating

The data is only applied for some models under A7W35, which is for understanding and reference only. The result may vary depending on different products. Please refer to the specification for more details.

High reliability

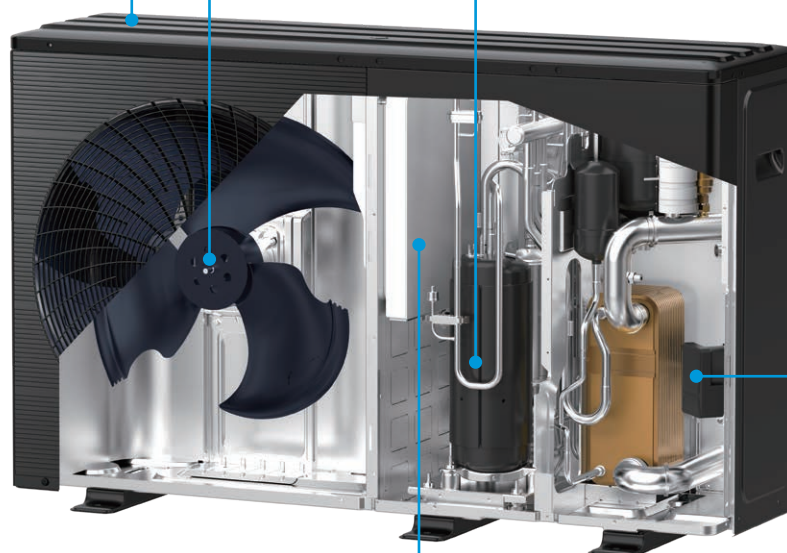
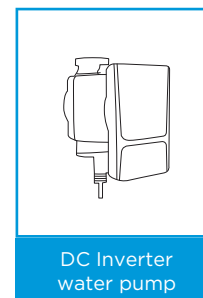
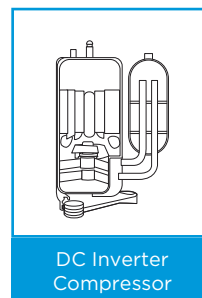
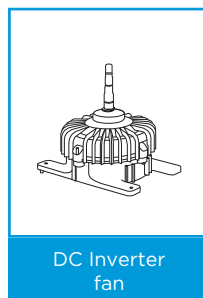
R290 M thermal heat pump adopts well-known brand components and advanced manufacturing processes to ensure product reliability. It is worth mentioning that, in order to best reassure customers about the use of R290 heat pump, the electric control system adopts a hermetic design to further improve the overall reliability.

1. Advanced manufacturing technology



2. All DC Inverter components

DC Inverter



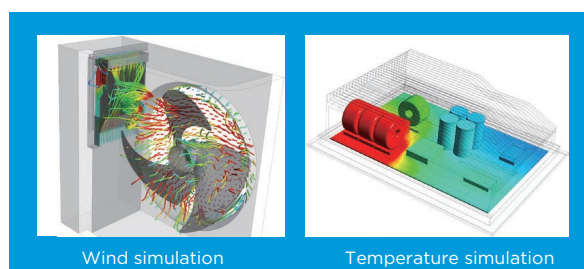
3. Hermetic electric control box



- Excellent sealability

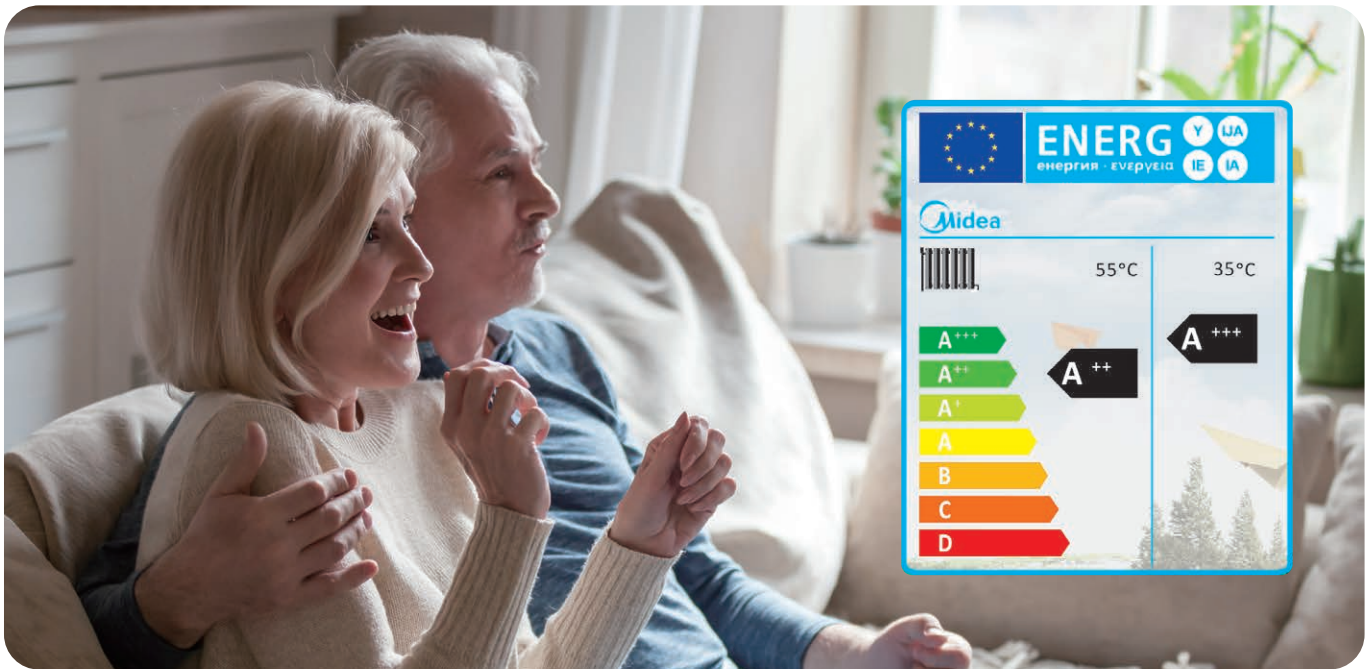
Thanks to the special air flue design and multiple simulations, the heat dissipation rate of electric control system has been greatly improved, which provides a strong support for heat pump to run stably under -25°C ~ 46°C wide ambient temperature range

- Explosion-proof design



High efficiency

Energy efficiency label indicates the energy efficiency level and performance data of heat pump. The purpose of energy efficiency label is to provide necessary information for users to make purchase decisions, so as to help users to choose highly energy-efficient and energy-saving products. With the help of all DC inverter technology, R290 M thermal Arctic Series reaches the EU Energy Efficiency A+++ at 35°C water temperature, A++ at 55°C water temperature, which ensures users get a better experience with a more economical and reasonable cost .



User friendly controller

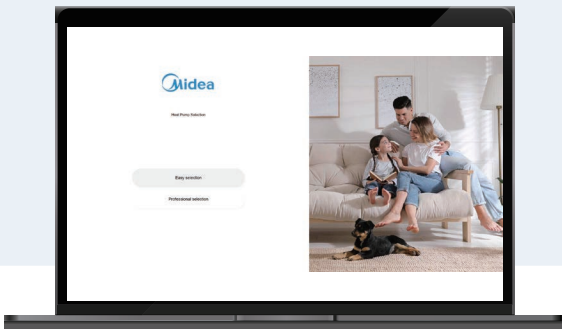


- Color screen
- Intuitive interface
- Touch-key design
- Liquid crystal display
- Built-in Wifi module
- Modbus protocol
- APP control
- Non-polarized wiring connection

IOT tools

Heat pump selection

- Website design
- Professional selection version for distributor (Eurovent certification)
- Easy selection version for end-user
- Quick selection
- System configuration
- Energy consumption comparison





CERTIFICATE
N° 12.09.003



Appendix / Annexe

Granted on September 27, 2012 – Date 1ère admission 27 septembre 2012

This document is valid at the date of issue – Check the current validity on:
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Heat Pump Solution 1.2
Midea Air-Cooled Chiller Selection 1.006

EUROVENT CERTITA CERTIFICATION SAS au capital de 100 000 € – 48-50 rue de la Victoire 75009 Paris – FRANCE
Tel.: 33 (0)1 75 44 71 71 – 513 133 637 RCS Paris – SIRET 513 133 637 000 35 – TVA FR 59513133637
SID2016 TEMPLATE_ECP_Certita_All_Rev1.1

SmartHome APP



- Designed for end-user
- Easy setting
- Monitor unit status and energy consumption
- Convenient remote control

ATW heat pump

Mode setting: ModelHeating, On/Off

On/Off control: On/Off

Temperature curve setting: Curve

Temperature: 59°C (Set temp)

Daily timer: Schedule

Weekly timer: Silent

Silent mode: Super silent mode

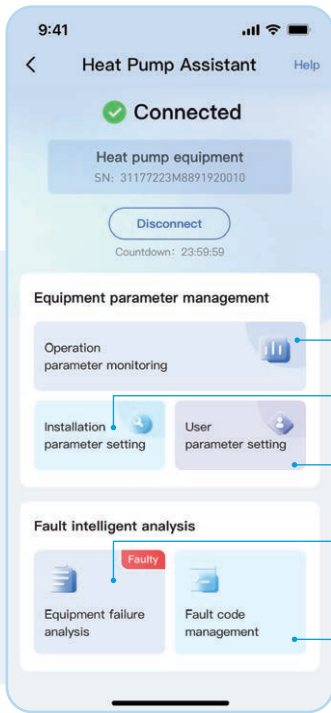
ECO mode: ECO

Holiday away mode: Holiday

Holiday home mode: Holiday

Energy data display:

6813 kWh PRODUCTION	69 kWh RE PRODUCTION
8211 kWh CONSUMPTION	0.82 COP/EER

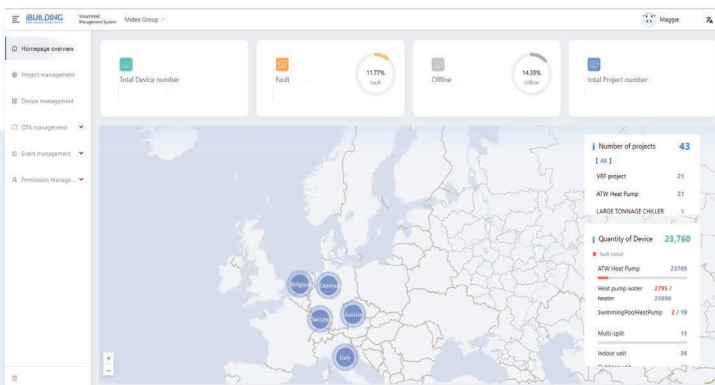


- Designed for professional user
- For installation or after-service
- Offering a range of functions for commissioning, monitoring and diagnosis

- Easily access the status and data of unit remotely
- Parameter trend curve display
- Parameters adjustment while installing or after-serving
- Manage customer's setting
- Monitor unit status and history error codes
- Prepare for service visits by investigating specific error codes
- Providing all error codes meaning and solutions

IBUILDING

Intelligent HVAC Management System
(Expected launch date is October 31, 2023.)



- Designed for distributor and partner
- Access information about installation, maintenance record and repair record
- Remotely monitor systems status and data from a single, customized dashboard

Note: Midea has always been developing and updating all the IOT tools for the best customers' experience, thus, interfaces may vary due to enhancement or change.

Specifications

Model		MHC-V4WD2N7	MHC-V6WD2N7	MHC-V8WD2N7	MHC-V10WD2N7	MHC-V12WD2N7	MHC-V14WD2N7	MHC-V16WD2N7	MHC-V12WD2RN7	MHC-V14WD2RN7	MHC-V16WD2RN7	
Power supply		220-240V-50Hz	220-240V-50Hz	220-240V-50Hz	220-240V-50Hz	220-240V-50Hz	220-240V-50Hz	220-240V-50Hz	380-415V-3N-50Hz	380-415V-3N-50Hz	380-415V-3N-50Hz	
Heating A7W35	Capacity	W	4500	6200	8400	10000	12000	14000	15000	12000	14000	15000
	Rated input	W	874	1265	1680	2128	2500	3111	3409	2500	3111	3409
	COP		5.15	4.90	5.00	4.70	4.80	4.50	4.40	4.80	4.50	4.40
Heating A7W45	Capacity	W	4500	6400	8200	10000	12000	14000	15000	12000	14000	15000
	Rated input	W	1111	1684	2130	2740	3243	4000	4478	3243	4000	4478
	COP		4.05	3.80	3.85	3.65	3.70	3.50	3.35	3.70	3.50	3.35
Heating A7W55	Capacity	W	4600	6200	7800	9500	12000	14000	15000	12000	14000	15000
	Rated input	W	1438	2000	2438	3115	3871	4667	5263	3871	4667	5263
	COP		3.20	3.10	3.20	3.05	3.10	3.00	2.85	3.10	3.00	2.85
Heating A2W35	Capacity	W	4400	5600	7100	8200	9100	10800	12800	9100	10800	12800
	Rated input	W	1073	1436	1844	2247	2395	3086	4000	2395	3086	4000
	COP		4.10	3.90	3.85	3.65	3.80	3.50	3.20	3.80	3.50	3.20
Heating A-7W35	Capacity	W	4500	5900	7000	8000	10000	11500	12700	10000	11500	12700
	Rated input	W	1452	2000	2333	2807	3571	4259	5080	3571	4259	5080
	COP		3.10	2.95	3.00	2.85	2.80	2.70	2.50	2.80	2.70	2.50
Cooling A35W18	Capacity	W	4500	6500	8300	10000	12000	14000	16000	12000	14000	16000
	Rated input	W	818	1275	1612	2105	2667	3333	4103	2667	3333	4103
	EER		5.50	5.10	5.15	4.75	4.50	4.20	3.90	4.50	4.20	3.90
Cooling A35W7	Capacity	W	4700	6800	7500	8900	11500	12700	14000	11500	12700	14000
	Rated input	W	1288	2194	2174	2738	3770	4379	5091	3770	4379	5091
	EER		3.65	3.10	3.45	3.25	3.05	2.90	2.75	3.05	2.90	2.75
SCOP	Average climate, W35	A+++										
	Average climate, W55	A++										
ErP sound power level	dB	56	58	60	61	65	65	69	65	65	69	
Refrigerant	Type(GWP)	R290(3)										
	Charged volume	g	700			1100			1250			
Unit dimension (W×H×D)	mm	1299×717×426				1385×865×523						
Packing dimension (W×H×D)	mm	1375×885×475				1465×1035×560						
Net weight	kg	90			117			135			137	
Gross weight	kg	110			139			157			159	
Water side Connection dimension		G1"BSP				G1 1/4"BSP						
Outdoor air temperature range	Cooling	°C	-5~46									
	Heating	°C	-25~35									
	DHW	°C	-25~46									
Water setting temperature range	Cooling	°C	5~30									
	Heating	°C	12~75									
	DHW	°C	10~70									

Note:

The above data test reference standard EN14511; EN14825; EN50564;EN 12102; (EU) No:811

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