

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



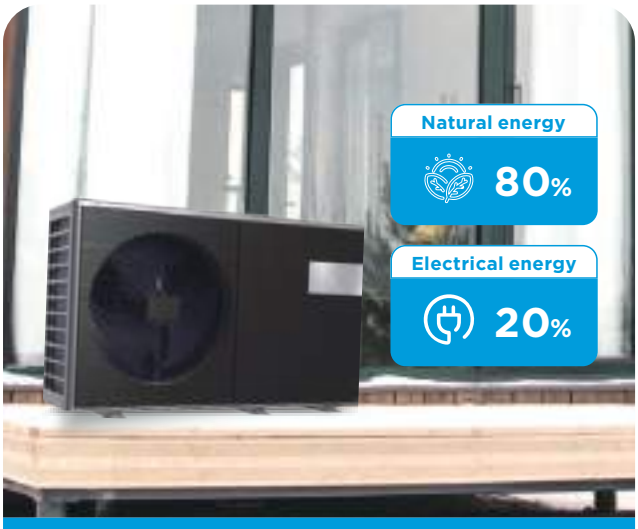
75°C hot water under -10°C ambient temperature

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℃ 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.

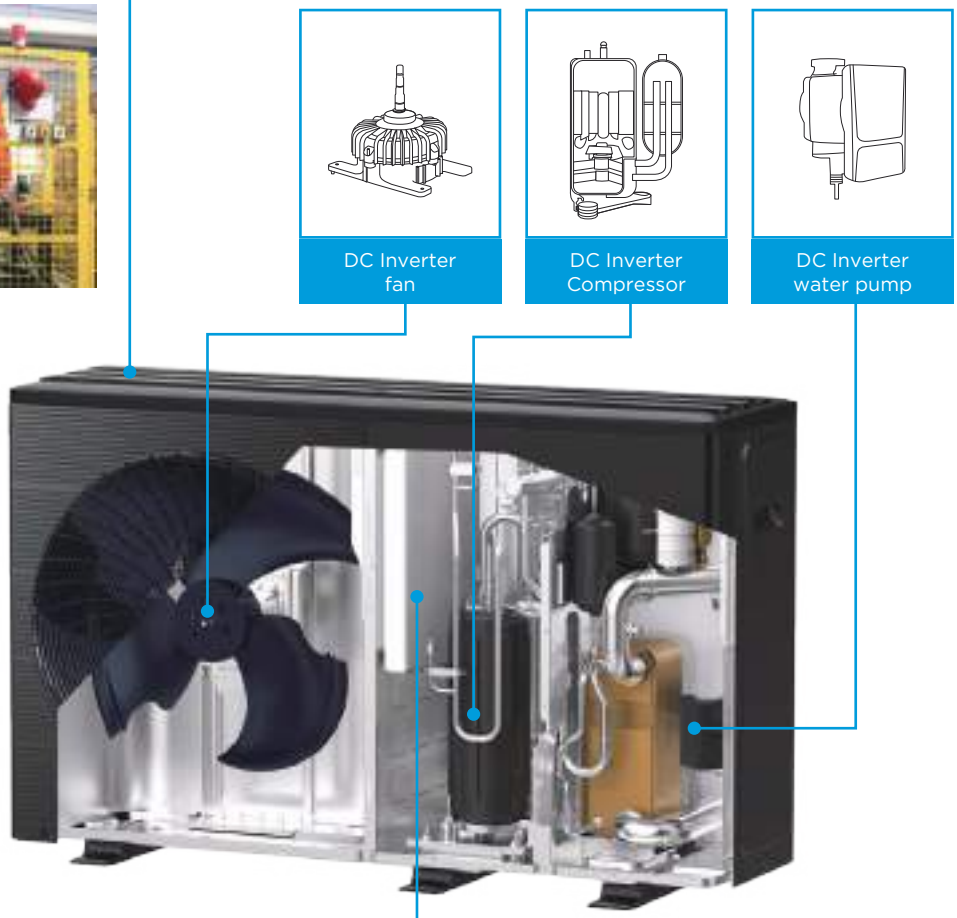
High reliability

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



3. Hermetic electric control box



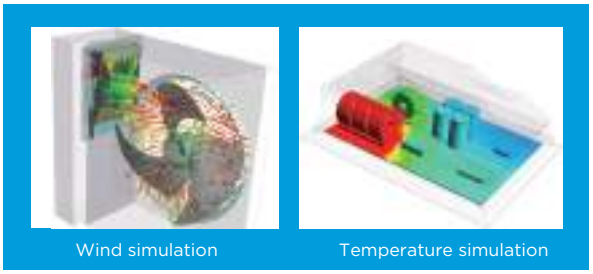
- Excellent sealability



- Explosion-proof design



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℃~46℃ wide ambient temperature range



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℃ water temperature, A++ at 55℃ 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





Eurovent Certita Certification

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:
Document valable à la date d'émission – Vérifier la validité en cours sur :
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MDV
MIDEA

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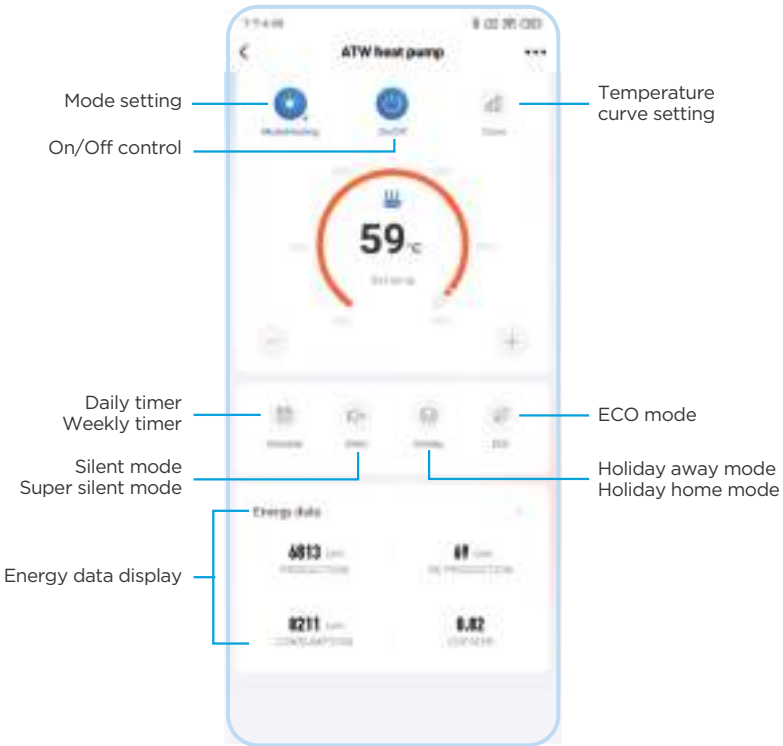
Heat Pump Solution 1.2
Midea Air-Cooled Chiller Selection 1.006

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SmartHome APP



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



LetsLink

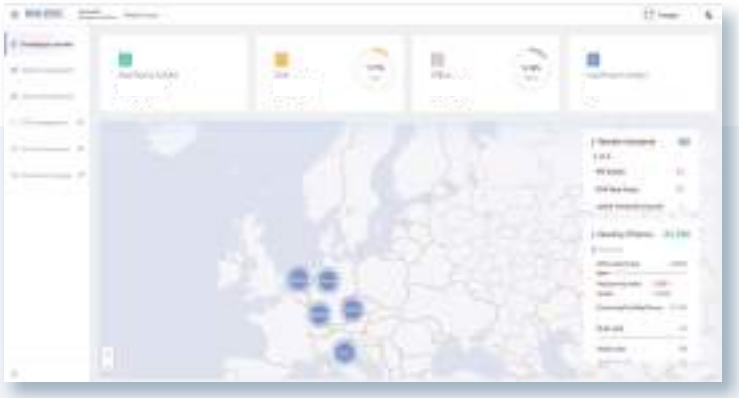


- Designed for professional user
- For installation or after-service
- Offering a range of functions for commissioning, monitoring and diagnosis

- 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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Midea is constantly developing and improving its products.

Check ongoing validity of certificate: www.eurovent-certification.com

Please note that all the pictures in the document are for referance only. Actual products may vary.

Quality Assurance ISO 9001

Environmental Management ISO 14001

Occupational Health and Safety Management ISO 45001