Optional items

Optional items	Physical component	Function
Microbubble separator [1]		Internal installed microbubble separator effective separate R2 90 refrigerant gas from water loop
9kW IBH [1]		Integrated design for easy installation.As a supplementary heat source, it improves the heating capacity of the heat pump at an ultra low temperature, thus improving comfort. As a backup heat source, it ensures the heating needs a re met if a unit fails.

Note:

1. Microbubble separator and IBH are optional for 18-22kW units.
2. Water pressure sensor, water flow sensor and electric heater on the chassis are all factory installed as standard for 18-40kW units.
3. Microbubble separator is factory installed as standard for 26-40kW units.

Midea Building Technologies Division
Midea Group

HM-M202607V1

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MARS M2 Series

R290 All DC Inverter Air Source Heat Pump

An environmentally friendly and energy efficient unit

What is the refrigerant?

Refrigerant is a kind of working medium used in refrigeration and air conditioning systems, which absorbs and releases heat through circulation flow, so as to achieve the effect of refrigeration and air conditioning.

Why is Mars M2 Series unit equipped with R290 refrigerant?

Natural Refrigerant R290

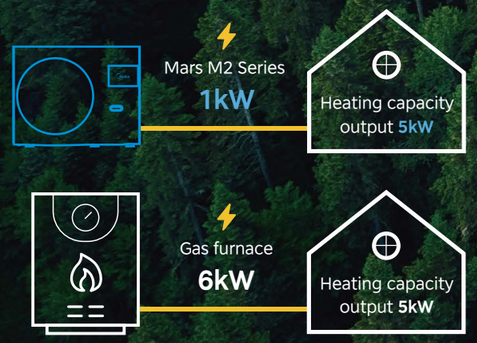
- Much lower GWP value to meet EU carbon neutrality
- No ozone depletion potential
- Excellent thermodynamic performance
- Great thermal efficiency for most conditions

ODP=O
Neutral for the ozone layer

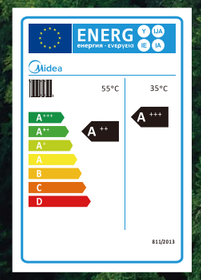
GWP=0.02
Lower impact on global warming

Mars M2 series unit has obtained certifications from multiple organizations, which is worthy of the customers' trust.

Mars M2 Series meets the highest rank of energy efficiency criteria of European energy rating system.



ηs. Seasonal space heating energy efficiency
ηs average up to A+++ at 35°C
ηs average up to A++ at 55°C



Note: Not for all models, refer to specification table for each model.

A light commercial Heat Pump that can be installed on a balcony

The Mars M2 Series heat pump has 6 models with a capacity range from 18kW to 40kW, focusing on light commercial applications. It is suitable for villa garden, small office buildings, apartments, hotels and other light commer - cial application scenarios.

Mars M2 Series units can be connected in parallel up to 6 units, with a maximum heating capacity of 240kW. Its large capacity can meet the requirements of many commercial applications.

What should be done when the distance between houses is small and it is not possible to install unit with high heating capacity?

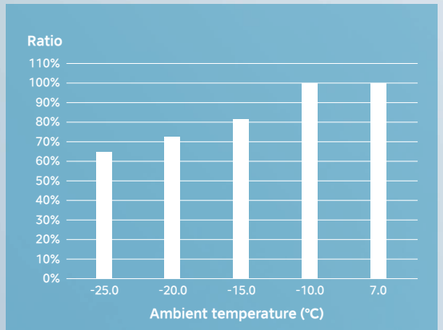
Mars M2 Series unit adopts a side air outlet structure, with a footprint of approximately 0.63 m^2, a length of 1330mm, and a width of 475mm (the data is for 18-22kW unit). When the distance between houses is small and it is not possible to install machines on the roof, the special design of the Mars M2 structure allows it to be installed in small spaces such as balconies, meeting the user's heating/cooling needs throughout the year.



A heat pump that can operate efficiently at low ambient temperatures

Ordinary heat pump at low ambient temperature heating capacity decay more, need to be combined with gas furnace or electric heating to meet the he ating demand.

Ratio of actual heating capacity to rated heating capacity (55°C LWT)



Heating capacity reaches **100%** ,
at ambient temperatures of **-10°C**;

Heating capacity **≥75%**,
at ambient temperatures of **-15°C**;

Heating capacity **≥70%**,
at ambient temperatures of **-20°C**;

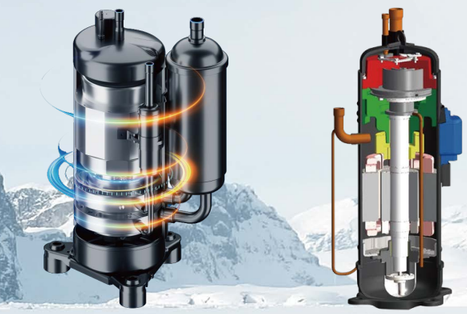
Heating capacity **≥65%**,
at ambient temperatures of **-25°C**;

Note:
Test condition: EN14511
Under the ambient temperature of -10℃ to 7℃, due to the defrosting of the unit, the cycle heating capacity has a certain attenuation.

Why can the Mars M2 series unit achieve excellent low-temperature heating capacity?

Mars M2 series unit is equipped with an R290 dedicated Inverter EVI (Enhanced Vapor Injection) Compressor, which combined with EVI technology, improves low-temperature heating capacity and energy efficiency by increasing refrigerant circulation of the heat pump at low ambient temperature.

The Mars M2 series unit features excellent low-temperature performance, eliminating the need for an external heat source. A single unit provides year-round heating while saving electricity.

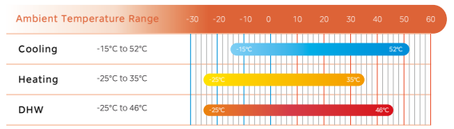


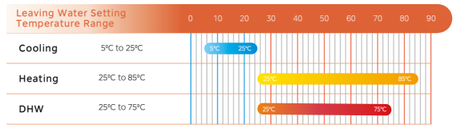
EVI Rotary Compressor
for 18-22kW

EVI Scroll Compressor
for 26-40kW

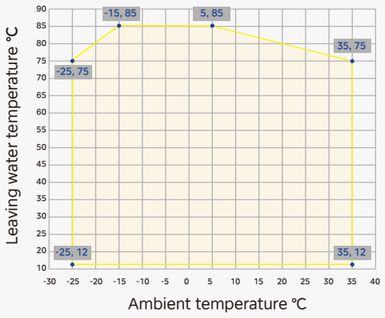
A heat pump that has wide application range and leaving water temperature reaches the disinfection temperature

Wide application range



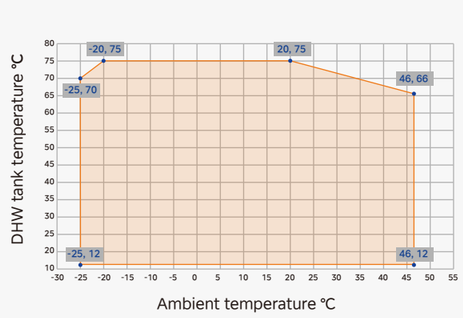


Heating application range

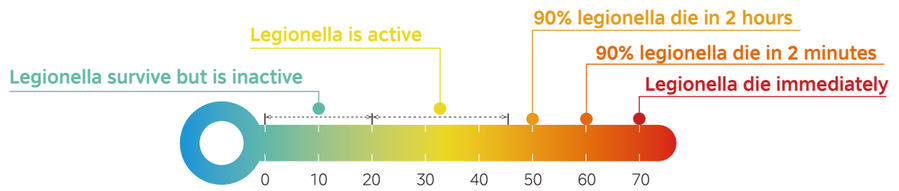


85 °C leaving water temperature at **-15°C** to **5°C** ambient temperature range
75 °C leaving water temperature at **-25°C** ambient temperature
75 °C leaving water temperature at **35°C** ambient temperature

DHW application range



75°C DHW tank temperature at **-20 °C** to **20°C** ambient temperature range
70°C DHW tank temperature at **-25 °C** ambient temperature
66°C DHW tank temperature at **46 °C** ambient temperature



A good heat pump is inseparable from comfortable use experience

Mars M2 comes with a color screen wired controller with an attractive design that has won the Red Dot Award. The interface is simple and intuitive, making operation easy. The controller can also be paired with the Midea SmartHome app, enabling remote control of the unit from anywhere.

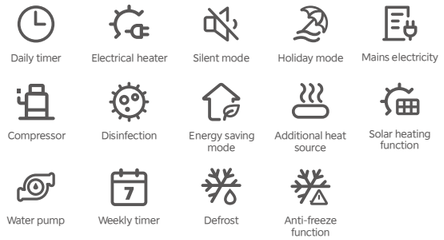
Intuitive and easy-to-use for best experience

New User Interface

reddot design award



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



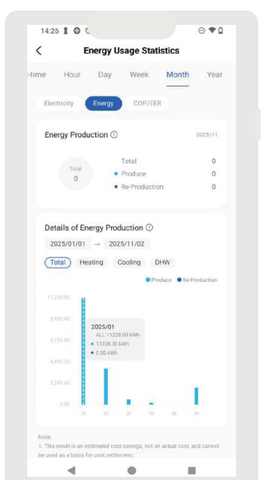
Energy Metering Function

Users have the option to receive a customized energy analysis through the user interface, APP and portal, enabling intuitive, visual energy management which helps guide user behavior to achieve a more energy efficient heat pump system.

Complies with EU Regulations 2018/2001/EU and (EU) 2022/759 for the purpose of receiving subsidies.



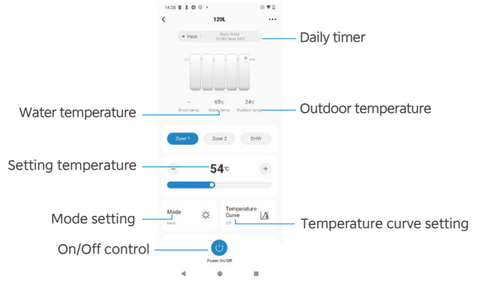
Controller



SmartHome

Control from anywhere at your fingertips

SmartHome APP



Monitoring

- System status
- Real-time temperature
- Energy consumption data

Scheduling

- On/off operation
- Holiday settings
- Hot water heating control

Convenient modes

- Silent mode
- Eco mode
- Holiday mode

Download on the App Store

GET IT ON Google Play

In light commercial scenarios, different heating temperature re quirements often exist in the same build ing, such as different temperature requirements for shopping ar eas and office areas, which may have different hot water temperature requirements when using differe nt end units.

The dual-zone control function equipped in Mars M2 series unit can perfectly meet the requirements of this scenario. The wired controller can be used to set different wat er outlet temperatures for two independent zones, providing users with a more comfortable experience.





Heat pump selection and after-sales service are also important aspects of the user experience.

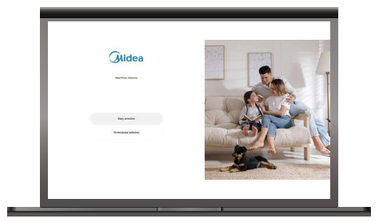
Midea has developed professional selection software and after-sales service tools to help dealers better serve customers. The selection software helps customers choose models with suitable capacity, and the after-sales service tools enable customers to enjoy better and more timely after-sales service experience.

Heat pump selection provides comprehensive design

Heat Pump Selection software

https://www.midea-hpselection.com/

- Website design
- Dedicated section for professionals (Eurovent certification)
- Easy-select consumer section
- Sophisticated configuration tool
- Energy-usage comparison tool




Eurovent Certita CERTIFICATION

CERTIFICATE N° 12.09.003

EUROVENT CERTIFIED PERFORMANCE

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 :
www.eurovent-certification.com

List of certified products and characteristics is displayed on:
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This product performance certificate is valid for the following trade names:
Ce certificat de performance produit est valide pour les marques commerciales suivantes:
Trade Name / Marque Commerciale

MDV
MIDEA

This product performance certificate is valid for the following manufacturing places:
Ce certificat de performance produit est valide pour les sites de production suivants:
Manufacturing Place / Site de Production

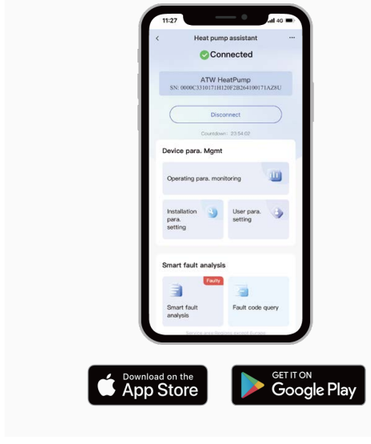
Not applicable for this certification programme / Non applicable pour ce programme de certification

This product performance certificate is valid for the following software:
Ce certificat de performance produit est valide pour les logiciels de sélection suivants:
Software / Logiciel de sélection

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

Multiple after-sales service and support platforms



LetsLink Heat Pump Assistant
APP

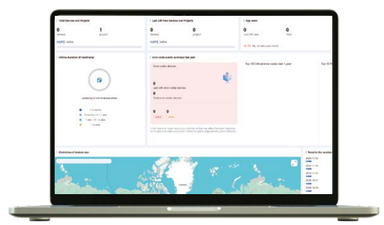
Heat pump remote connection and control from anywhere

- Ideal for busy service providers
- Enables faster service and eliminates unnecessary service calls
- Control various operations, monitor set parameters remotely
- Get reports with historical data
- Fault-code queries and troubleshooting

Intelligent HVAC Management System

Centralized, 24/7 monitoring of multiple units

- Enables complete control of all installed units
- Real-time status updates for multiple units with a single click
- Get access to historical data
- No limit to the number of connected devices and user accounts
- No need to carry multiple devices



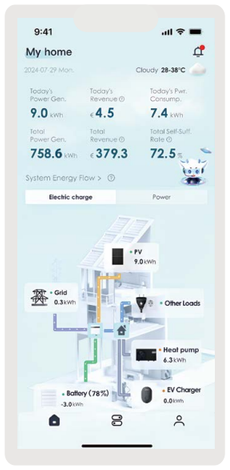
iEasyEnergy solution - A Step Toward Energy Independence

Midea MBT has launched the iEasyEnergy solution to provide one-stop services spanning from design to installation to meet the needs of energy consuming devices in households. iEasyEnergy solution is based on PV panels, LFP batteries and heat pump system, through iEasyEnergy app for energy scheduling and centralized flexible control, greatly improve energy efficiency, the entire system can be up to 0% home energy self-sufficiency increased to 90%, customers not only save energy bills, it can also improve energy security.

1 Heat Pump
2 M-ESS (Energy storage)
3 M-Master (Central controller)
4 M-Charger (EV Charger)
5 M-Solar (Solar module)

Analyze whether your home energy is safe, perform visible energy management automatically

iEasyEnergy is an intelligent energy management APP that integrates heat pumps, photovoltaic modules, energy storage, hybrid inverters, and other equipment into a flexible and efficient system. It enhances the energy independence of your home and opens up a new era of home energy management.



Advanced Highlights

- 3-in-1 one-stop management
- Excess solar for continues heating and free cooling"by flexible control
- Home energy self-sufficiency and anergy bill savings analysis
- Automatic fault notification push and analysis

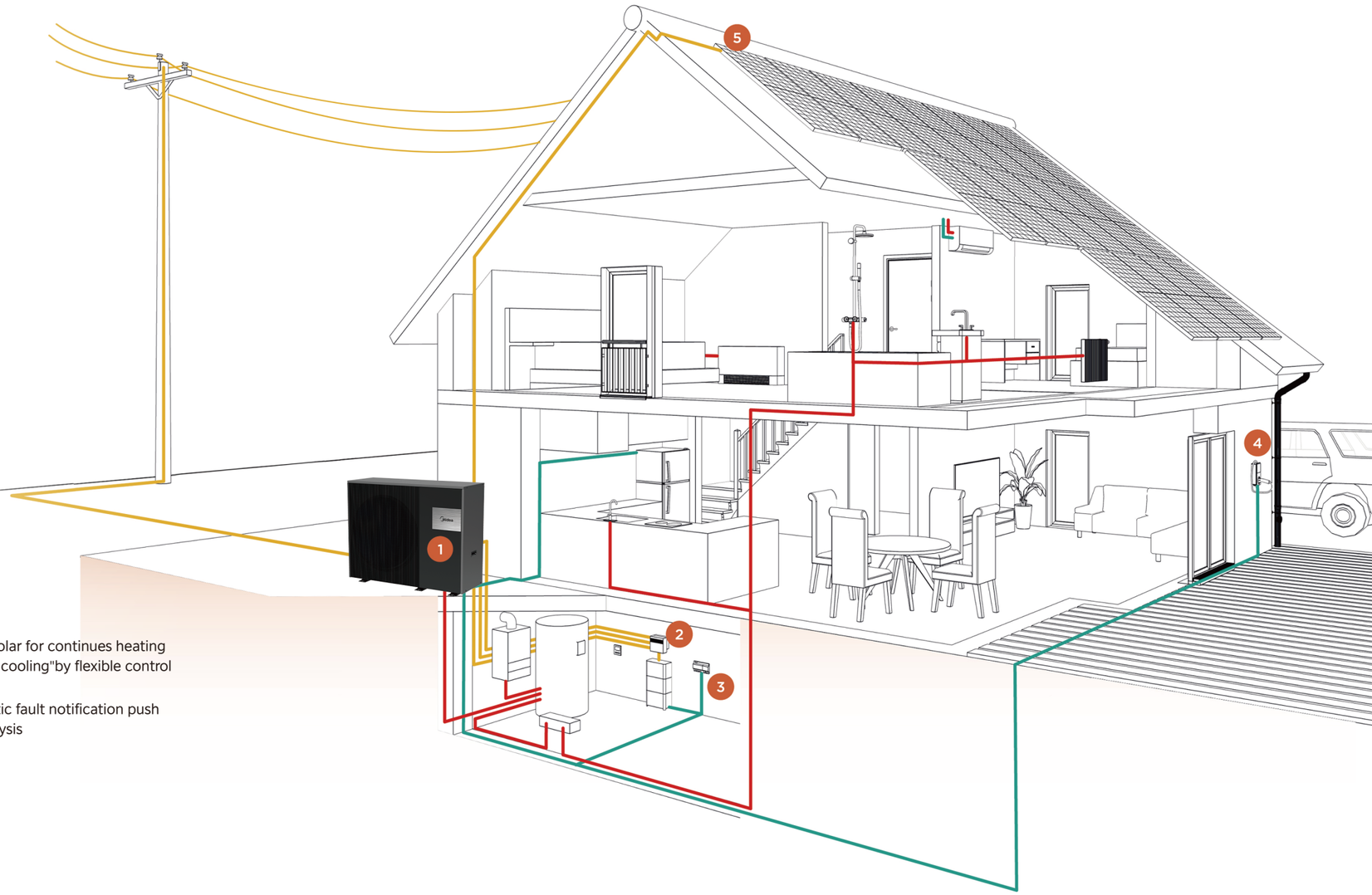
Heat Pump + PV + Battery + DHW Water Tank Professional Selection

Midea Energy Super Advisor helps installers configure energy systems with auto-generated reports and analysis.

https://ieasyenergy.mideaibp.com/

Simple, 4-Step professional energy-solution proposal

Basic info. For solar
Basic info. For HP
Historical energy data
Hardware proposal & Financing analysis



Specifications



Model name				MHC-V18WD2RN7	MHC-V22WD2RN7
Heating A7W35	Capacity		kW	18.00	22.00
	Rated input		kW	3.91	5.12
	COP			4.60	4.30
Heating A7W55	Capacity		kW	18.00	22.00
	Rated input		kW	5.63	7.10
	COP			3.20	3.10
Heating A2W35	Capacity		kW	18.00	20.0
	Rated input		kW	5.12	6.27
	COP			3.50	3.19
Heating A-7W35	Capacity		kW	18.00	19.50
	Rated input		kW	6.43	7.65
	COP			2.80	2.55
Cooling A35W18	Capacity		kW	18.00	22.00
	Rated input		kW	3.83	5.24
	EER			4.70	4.20
Seasonal space heating energy efficiency class	Water outlet at 35ºC	SCOP		4.75	4.60
		ηs		187.0%	181.1%
		class		A+++	A+++
	Water outlet at 55ºC	SCOP		3.78	3.75
		ηs		148.0%	146.9%
		class		A++	A++
SEER	Water outlet at 7ºC	SEER		4.90	4.82
		ηs		193.0%	189.8%
	Water outlet at 18ºC	SEER		6.60	6.50
		ηs		261.0%	257.0%
Erp sound power level			dB	64	64
Water flow range			m^3/h	0.8-3.71	0.8-4.2
Compressor	Type			DC Inverter Rotary	
Outdoor fan	Motor type			DC fan	
	Number of fans			1	
Air-side heat exchanger	Type			Finned tube	
Refrigerant	Type			R290	
	Charged volume		kg	1.8	
Unit dimensions (W×H×D)			mm	1330×1050×538	
Packing dimensions (W×H×D)			mm	1390×1235×570	
Net weight			kg	179	
Gross weight			kg	204	
Water-side heat exchanger	Type			Plate heat exchanger	
Water-side connection dimensions			mm	DN25	
Water pump	Max. pump head		m	12	
Safety valve			Mpa	0.3	
Outdoor air temperature range	Cooling		ºC	-15~52	
	Heating		ºC	-25~35	
	DHW		ºC	-25~46	
Water setting temperature range	Cooling		ºC	5~25	
	Heating		ºC	25~85	
	DHW		ºC	20~75	

Specifications



Model name				MHC-V26WD2RN7-A2	MHC-V30WD2RN7-A2	MHC-V35WD2RN7-A2	MHC-V40WD2RN7-A2
Heating A7W35	Capacity		kW	26.00	30.00	35.00	39 .00
	Rated input		kW	5.45	6.67	8.40	10.54
	COP			4.77	4.50	4.17	3.70
Heating A7W55	Capacity		kW	26.00	30.00	35.00	39.00
	Rated input		kW	7.85	9.57	11.75	14.00
	COP			3.31	3.13	2.98	2.79
Heating A2W35	Capacity		kW	22.60	26.80	30.40	30.60
	Rated input		kW	6.11	7.61	9.87	9.87
	COP			3.70	3.52	3.08	3.10
Heating A-7W35	Capacity		kW	22.00	26.00	30.00	30.00
	Rated input		kW	7.46	9.09	11.81	12.00
	COP			2.95	2.86	2.54	2.50
Cooling A35W18	Capacity		kW	26.00	30.00	35.00	39.00
	Rated input		kW	5.60	6.80	8.50	9.85
	EER			4.64	4.41	4.12	3.96
Seasonal space heating energy efficiency class	Water outlet at 35ºC	SCOP		4.95	4.92	4.48	4.32
		ηs		194.9%	193.8%	176.3%	169.7%
		class		A+++	A+++	A+++	A++
	Water outlet at 55ºC	SCOP		3.84	3.79	3.63	3.47
		ηs		150.7%	148.7%	142.4%	135.6%
		class		A+++	A++	A++	A++
SEER	Water outlet at 7ºC	SEER		5.21	4.99	4.82	4.83
		ηs		205.3%	196.8%	190.0%	190.0%
	Water outlet at 18ºC	SEER		7.17	6.80	6.43	6.90
		ηs		283.7%	268.9%	254.20%	245.8%
Erp sound power level			dB	69	74	75	77
Water flow range			m^3/h	1.2-7.2			
Compressor	Type			DC Inverter Scroll			
Outdoor fan	Motor type			DC fan			
	Number of fans			2			
Air-side heat exchanger	Type			Finned tube			
Refrigerant	Type			R290			
	Charged volume		kg	2.9			
Unit dimensions (W×H×D)			mm	1384×1816×523			
Packing dimensions (W×H×D)			mm	1480×2000×570			
Net weight			kg	275			
Gross weight			kg	310			
Water-side heat exchanger	Type			Plate heat exchanger			
Water-side connection dimensions			mm	DN32			
Water pump	Type			Canned-motor pump (DC+AC)			
	Max. pump head		m	12			
Safety valve			Mpa	0.3			
Outdoor air temperature range	Cooling		ºC	-15~52			
	Heating		ºC	-25~35			
	DHW		ºC	-25~46			
Water setting temperature range	Cooling		ºC	5~25			
	Heating		ºC	25~85			
	DHW		ºC	25~75			