Aqua Mini Series

EUROVENT CERTIFIED PERFORMANCE
Arid regular
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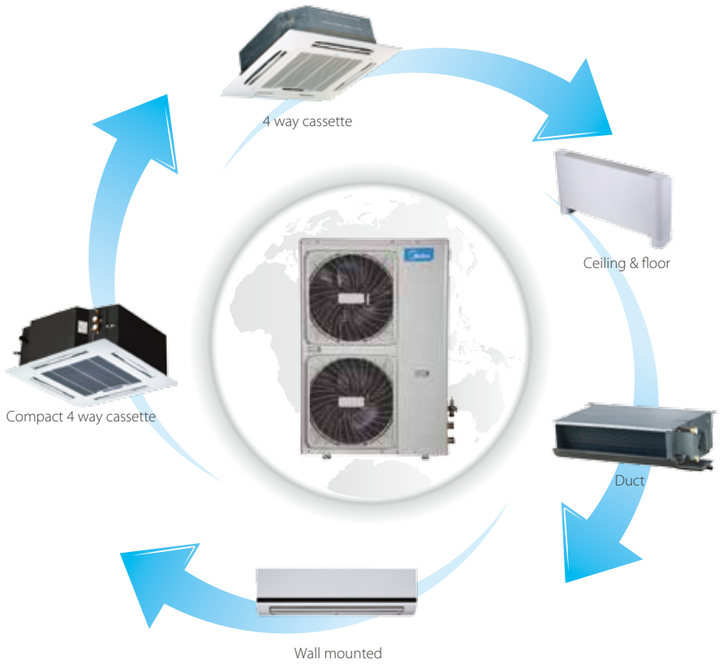
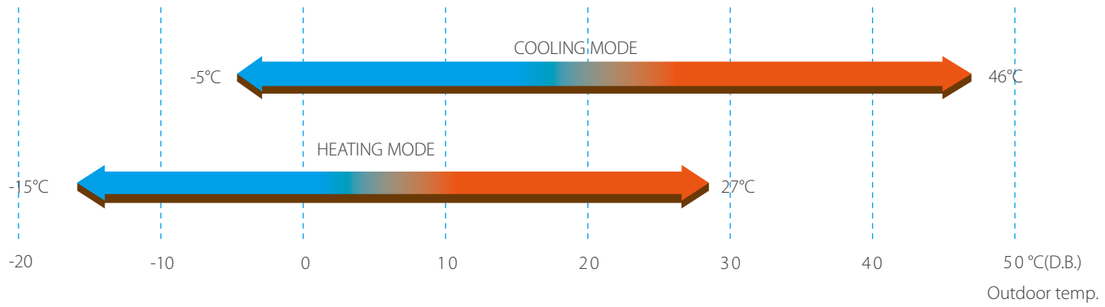
Features

Wide application range

- Seven models with wide range capacity from 5~16kW.
- Multiple power supply options.
- Freely combine with fan coil units and floor coils. Home owners may choose the best types according to their design taste (for interior) or functional needs.



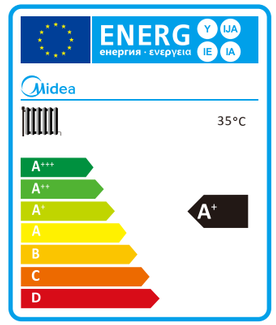
- Wide operation temperature range



- Wide range of outlet water temperature from 4~54℃.

A+ rated energy efficiency at part load

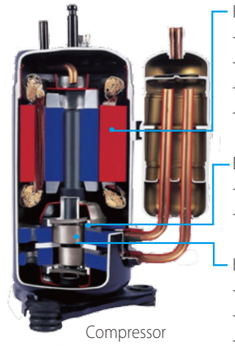
The DC inverter chiller integrates the latest technological innovations and ensures precise temperature regulation and highly efficient energy usage, making a significant contribution to limiting the impact on the environment.



DC Inverter Technology

- DC inverter compressor

Twin rotary DC inverter compressor is used. The output of the outdoor unit can be adjusted precisely according to the energy demanded.



Compressor
(Twin Rotary) structure

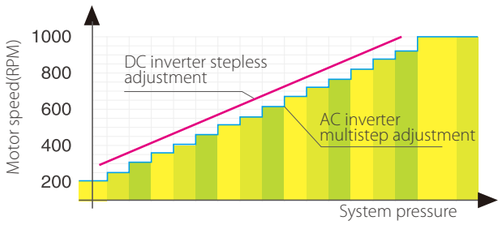
High efficiency DC motor:
- Creative motor core design
- High density neodymium magnet
- Concentrated type stator
- Wider operating frequency range

Better balance and Extremely Low Vibration:
- Twin eccentric cams
- 2 balance weights

Highly Stable Moving Parts:
- Optimal material matching rollers and vanes
- Optimize compressor drive technology
- Highly robust bearings
- Compact structure

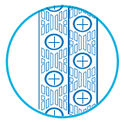
- DC fan motor

High efficiency DC fan motor saves power up to 50%.

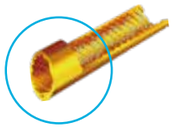


High performance heat exchanger

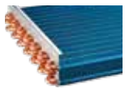
Enlarge heat-exchanging area | Enhance heat transfer | High efficiency



Fin



Inner-threaded pipe



Fin + inner-threaded pipes

Hydrophilic film fins and inner-threaded copper pipes optimize heat exchange efficiency. The specially coated blue fins enhance durability and protect against corrosion from air, water and other corrosive agents, assures a longer coil service life.

Heat exchanger aluminum foil

> Standard products:
200h of neutral salt mist

> Heavy anti-corrosion products:
1000h of neutral salt mist
140h of acid salt mis

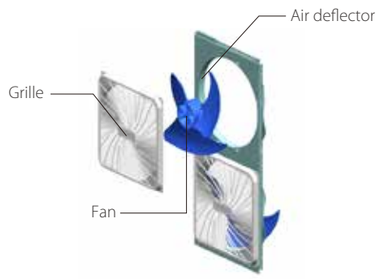
Heat exchanger copper pipe

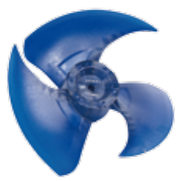
> Standard products:
24h of neutral salt mist

> Heavy anti-corrosion products:
150h of neutral salt mist

Advanced technology

- DC inverter technology, optimally designed fan shape and air discharge grille ensure low sound values.

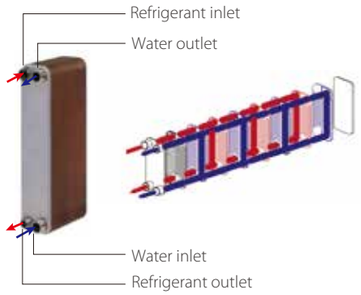




Powerful Large Propeller

Newly Designed Fan Guard

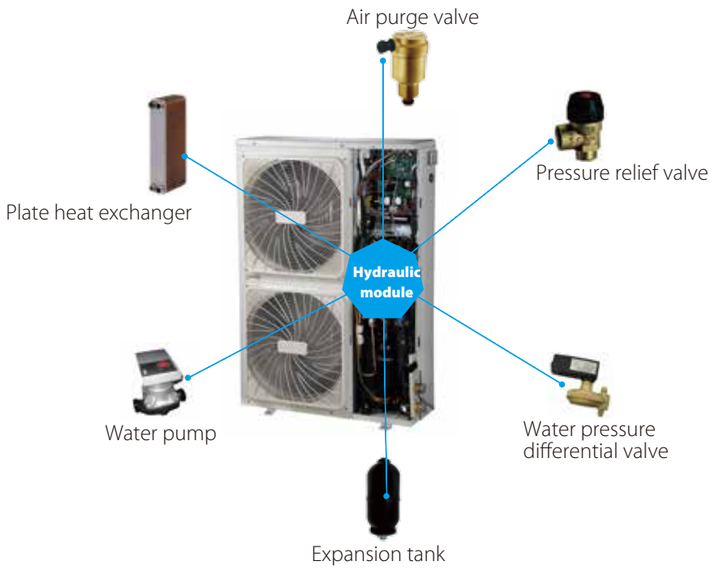
- EXV is used for stable and accurate gas flow control.
- High efficiency plate heat exchanger
  Plate heat exchanger uses metal plates to transfer heat between refrigerant and water. The fluids are exposed to a much larger surface area because the fluids spread out over the plates, so both heat transfer efficiency and heat exchanger speed are greatly improved.
- Multi protections including voltage protection, current protection, anti-freezing protection and water flow protection ensure system safety running.



- High efficiency water pump
  The water pump used is compliance with Erp directive.

Easy installation

- Compact structure design and leak-tight refrigerant circuit save you much installation labor.
- The chillers are equipped with a hydronic module integrated into the unit chassis, which save onsite installation time and cost. Installation is complete with only water pipe connection and electrical connection.



Easy control

- Remote ON/OFF control, remote cooling/heating control, remote alarm functions.

- With built-in controller in the panel, to perform all related operations as the user interface, as well as fast diagnosis and history data.
  - ON/OFF & Mode selection
  - Temperature adjust
  - Timer setting
  - Fast diagnosis

- Optional wired controller for easy operation.
  - Touch key operation
  - LCD displays operation parameters
  - Multiple timers
  - Real-time clock

Note: When the wired controller is connected, the built-in controller is only for display, check and diagnosis functions.

Specifications

5/7kW model

10/12kW model

Model			MGC-V5W/D2N1	MGC-V7W/D2N1	MGC-V10W/D2N1	MGC-V12W/D2N1
Power supply		V/Ph/Hz	220-240/1/50			
Cooling[1]	Capacity	kW	5.0	7.0	10.0	11.2
	Rated input	kW	1.55	2.25	2.95	3.50
	EER		3.23	3.11	3.39	3.20
Cooling[2]	Capacity	kW	5.6	8.0	10.6	12.2
	Rated input	kW	1.15	1.85	2.50	2.65
	EER		4.87	4.32	4.24	4.60
Heating[3]	Capacity	kW	6.2	8.0	11.0	12.3
	Rated input	kW	1.90	2.5	3.14	3.78
	COP		3.26	3.20	3.50	3.25
Heating[4]	Capacity	kW	6.2	8.6	11.5	13.0
	Rated input	kW	1.35	2.10	2.65	2.92
	COP		4.59	4.10	4.34	4.45
Seasonal space heating energy efficiency class			A+	A+	A+	A+
Compressor	Type		Rotary			
Outdoor fan	Motor type		DC Motor			
Air heat exchanger	Type		Fin-coil			
Water heat exchanger	Type		Plate			
Water pump	Pump head	m	6.2	6.2	7.0	7.0
Refrigerant	Type		R410A			
	Charged volume	kg	2.5	2.5	2.8	2.8
Throttle type			Electronic expansion valve			
Sound power level		dB	63	66	68	68
Unit net dimension (WxHxD)		mm	1,008×963×396	1,008×963×396	970×1,327×400	970×1,327×400
Packing dimension (WxHxD)		mm	1,120×1,100×435	1,120×1,100×435	1,082×1,456×435	1,082×1,456×435
Net/ Gross weight		kg	81/91	81/91	110/121	110/121
Water piping connection		inch	1"	1"	1-1/4"	1-1/4"
Ambient temperature range	Cooling	℃	-5-46			
	Heating	℃	-15-27			
LWT setting range	Cooling	℃	4-20			
	Heating	℃	35-54			

Notes:

1. Ambient temperature 35℃. Water in/out 12/7℃
2. Ambient temperature 35℃. Water in/out 23/18℃
3. Ambient temperature 7℃ ℃85% R.H., Water in/out 40/45℃
4. Ambient temperature 7℃ ℃85% R.H., Water in/out 30/35℃
5. The above data test reference standard EN14511; EN14825; EN50564; EN12102; (EU)No:811; (EU)No:813; OJ 2014/C 207/02

Specifications

Model			MGC-V12W/D2RN1	MGC-V14W/D2RN1	MGC-V16W/D2RN1
Power supply		V/Ph/Hz	380-415/ 3/50		
Cooling[1]	Capacity	kW	11.2	12.5	14.5
	Rated input	kW	3.38	3.90	4.70
	EER		3.31	3.20	3.10
Cooling[2]	Capacity	kW	12.2	14.2	15.6
	Rated input	kW	2.60	3.10	3.60
	EER		4.69	4.58	4.33
Heating[3]	Capacity	kW	12.3	13.8	16.0
	Rated input	kW	3.72	4.25	4.85
	COP		3.31	3.25	3.30
Heating[4]	Capacity	kW	13.0	15.1	16.5
	Rated input	kW	2.85	3.35	3.92
	COP		4.56	4.51	4.21
Seasonal space heating energy efficiency class			A+	A+	A+
Compressor	Type		Rotary		
Outdoor fan	Motor type		DC motor		
Air heat exchanger	Type		Fin-coil		
	Type		Plate		
Water pump	Pump head	m	7.0	7.0	7.0
Refrigerant	Type		R410A		
	Charged volume	kg	2.8	2.9	3.2
Throttle type			Electronic expansion valve		
Sound power level		dB	68	70	72
Unit net dimension (WxHxD)		mm	970×1,327×400		
Packing dimension (WxHxD)		mm	1,082×1,456×435		
Net/ Gross weight		kg	110/121	111/122	111/122
Water piping connection		inch	1-1/4"		
Ambient temperature range	Cooling	℃	-5-46		
	Heating	℃	-15-27		
LWT setting range	Cooling	℃	4-20		
	Heating	℃	35-54		

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