

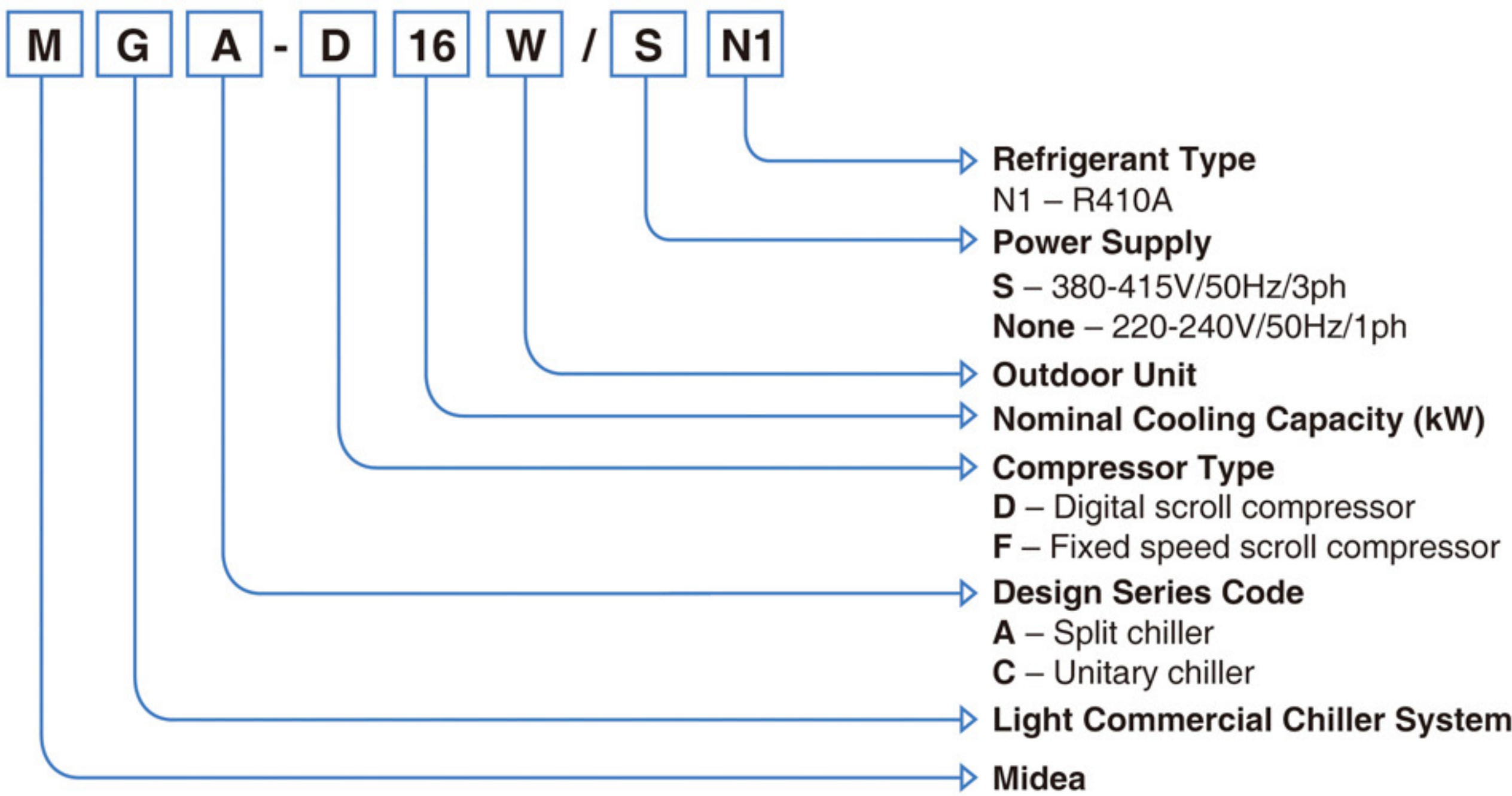
# MINI CHILLERS

## Introduction

Midea mini chiller series is air-cooled water heat pump chiller, including unitary type (built-in water pump and expansion tank) and split type, and the capacity of full range product is from 5kW to 16kW.

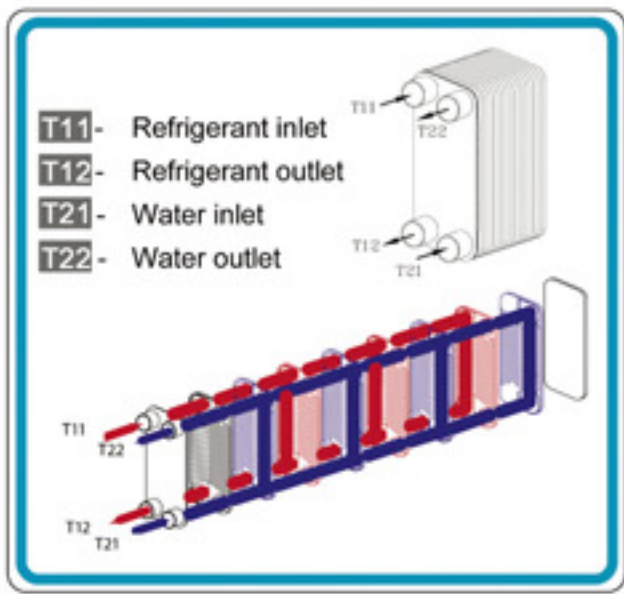
Model	Power supply	Compressor type	Refrigerant	Heat exchanger	A/C mode	Hydraulic module
MGC-F05W/N1	220-240V/1ph/50Hz	Constant scroll	R410A	Plate type	Heat pump	Built-in
MGC-F07W/N1	220-240V/1ph/50Hz	Constant scroll	R410A	Plate type	Heat pump	Built-in
MGC-F09W/N1	220-240V/1ph/50Hz	Constant scroll	R410A	Plate type	Heat pump	Built-in
MGC-F10W/N1	220-240V/1ph/50Hz	Constant scroll	R410A	Plate type	Heat pump	Built-in
MGC-F10W/SN1	380-415V/3ph/50Hz	Constant scroll	R410A	Plate type	Heat pump	Built-in
MGC-F12W/SN1	380-415V/3ph/50Hz	Constant scroll	R410A	Plate type	Heat pump	Built-in
MGC-F14W/SN1	380-415V/3ph/50Hz	Constant scroll	R410A	Plate type	Heat pump	Built-in
MGC-F16W/SN1	380-415V/3ph/50Hz	Constant scroll	R410A	Plate type	Heat pump	Built-in
MGA-D10/N1	220-240V/1ph/50Hz	Digital scroll	R410A	Plate type	Heat pump	Water pump box
MGA-D12/N1	220-240V/1ph/50Hz	Digital scroll	R410A	Plate type	Heat pump	Water pump box
MGA-D14/SN1	380-415V/3ph/50Hz	Digital scroll	R410A	Plate type	Heat pump	Water pump box
MGA-D16/SN1	380-415V/3ph/50Hz	Digital scroll	R410A	Plate type	Heat pump	Water pump box

## Nomenclature

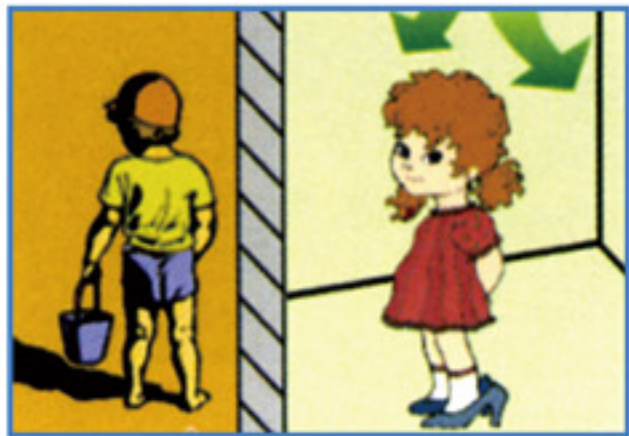


## Features

- Air-cooled system, no need cooling water tower at the condensing side, easy to install.
- By adopting high efficiency plate heat exchanger, the energy consumption can be reduced.

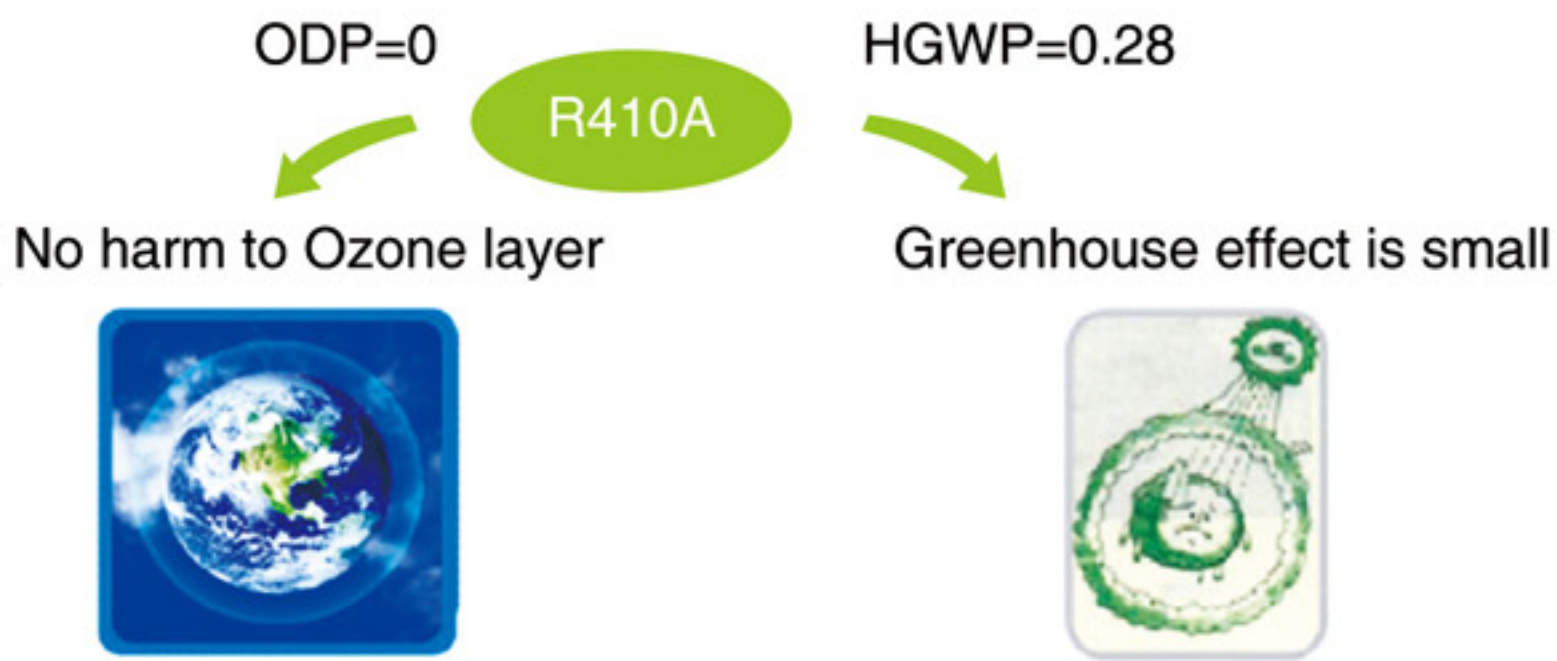


- All products are heat pump type which can run in cooling mode and heating mode.

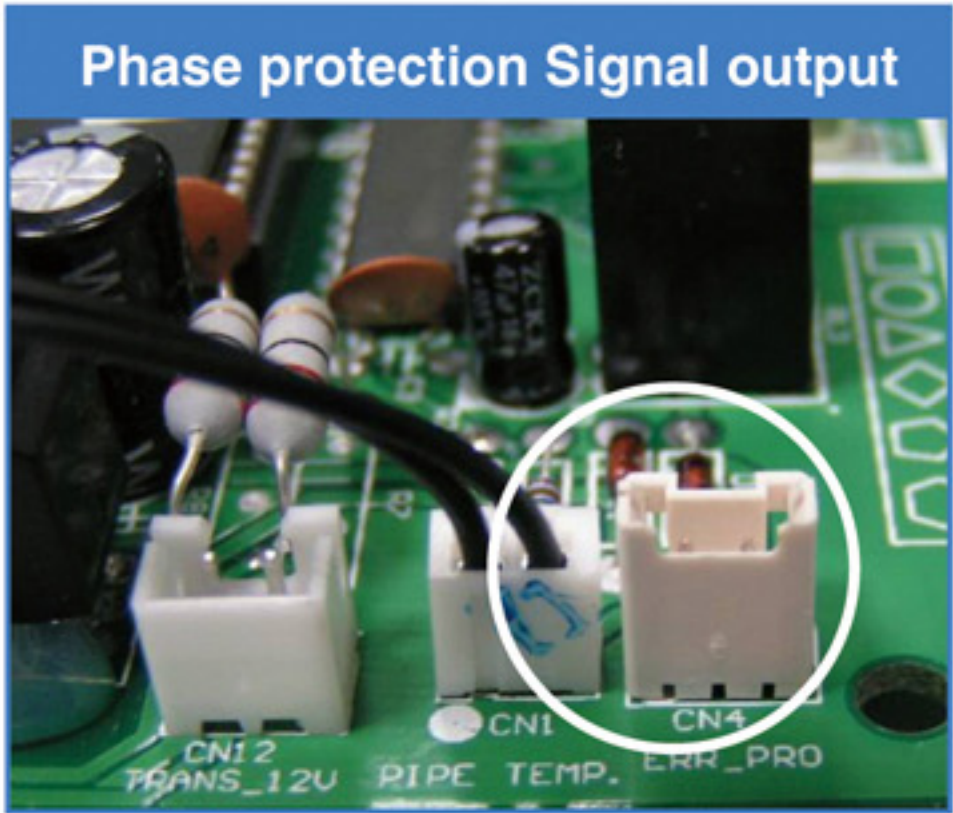
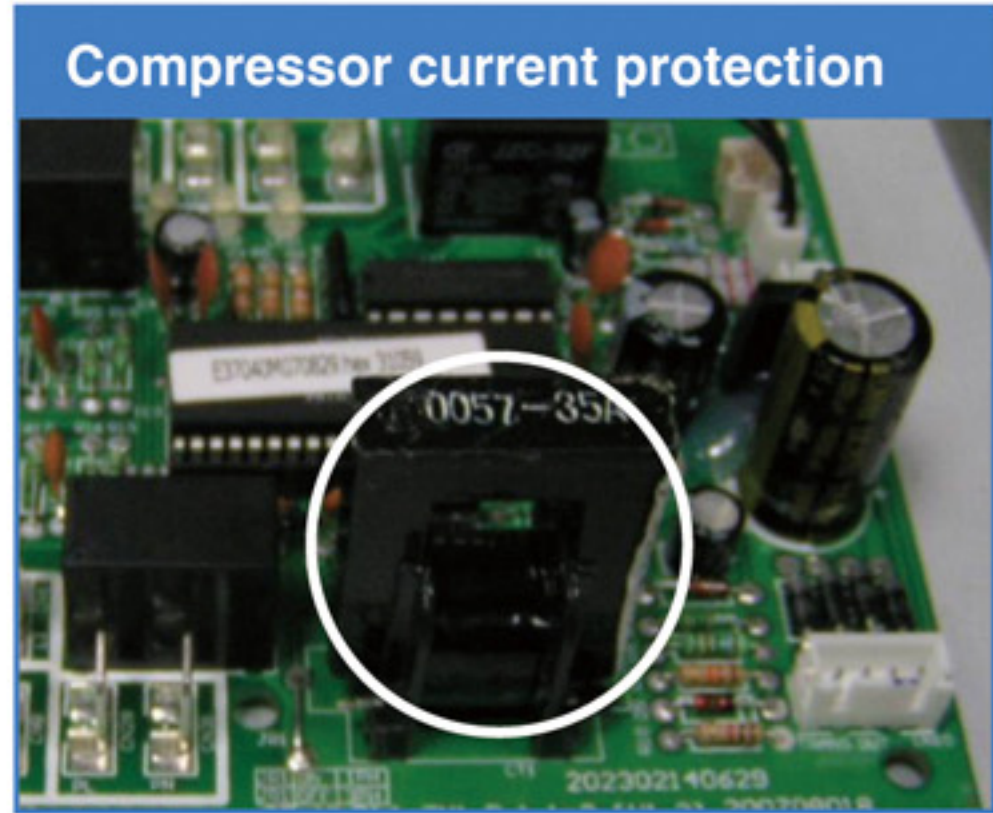


Operation Ambient temp. range:  
Cooling mode: 10°C~43°C  
Heating mode: -15°C~24°C

- Adopts R410A refrigerant, does not contain chlorine, no harm to ozone layer.



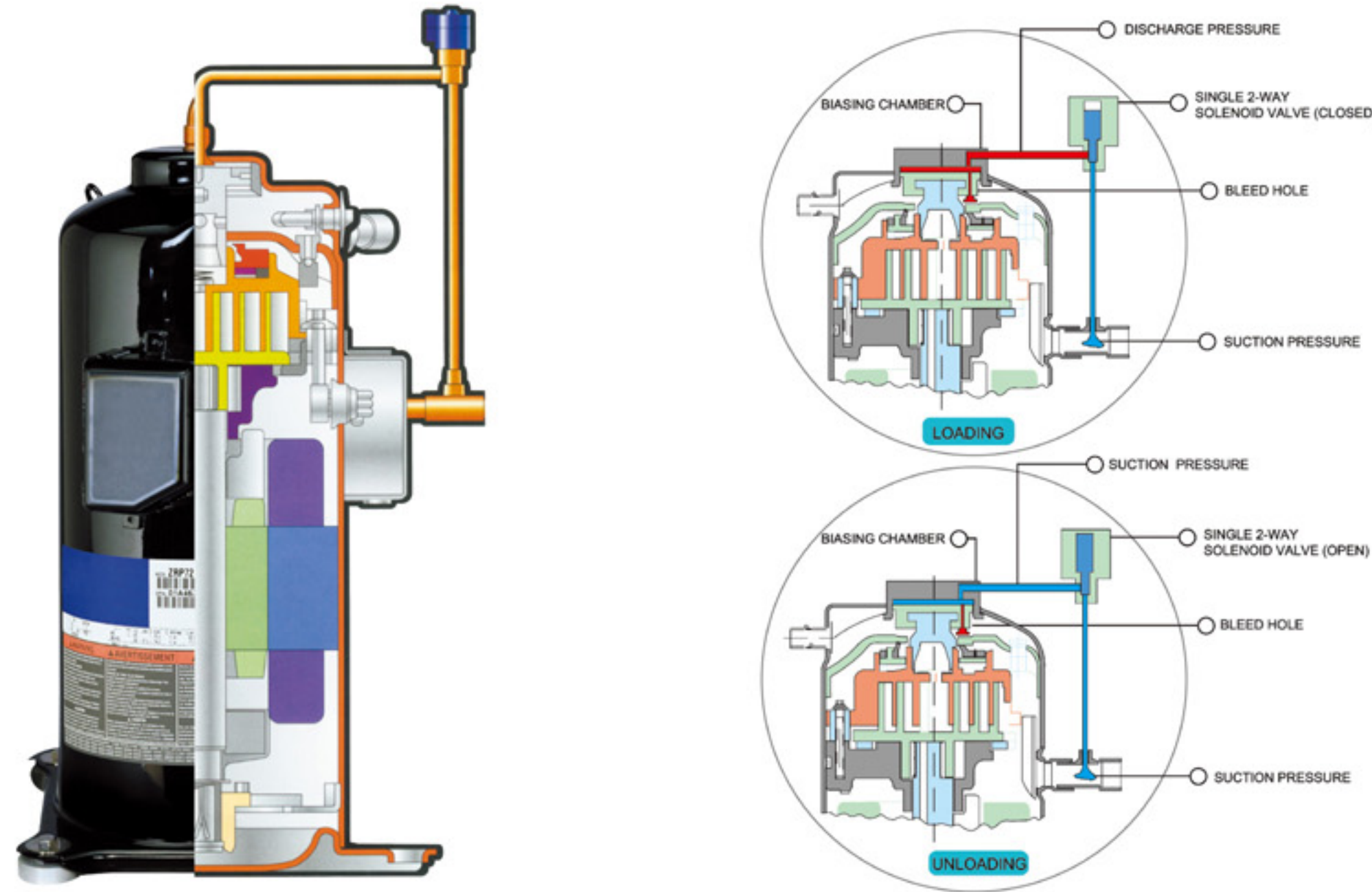
- Metallic protective cabinet with rustproof polyester paint.
- Built-in with voltage protection, current protection, anti-freezing protection, Water flow protection and etc., guarantee system works safely.



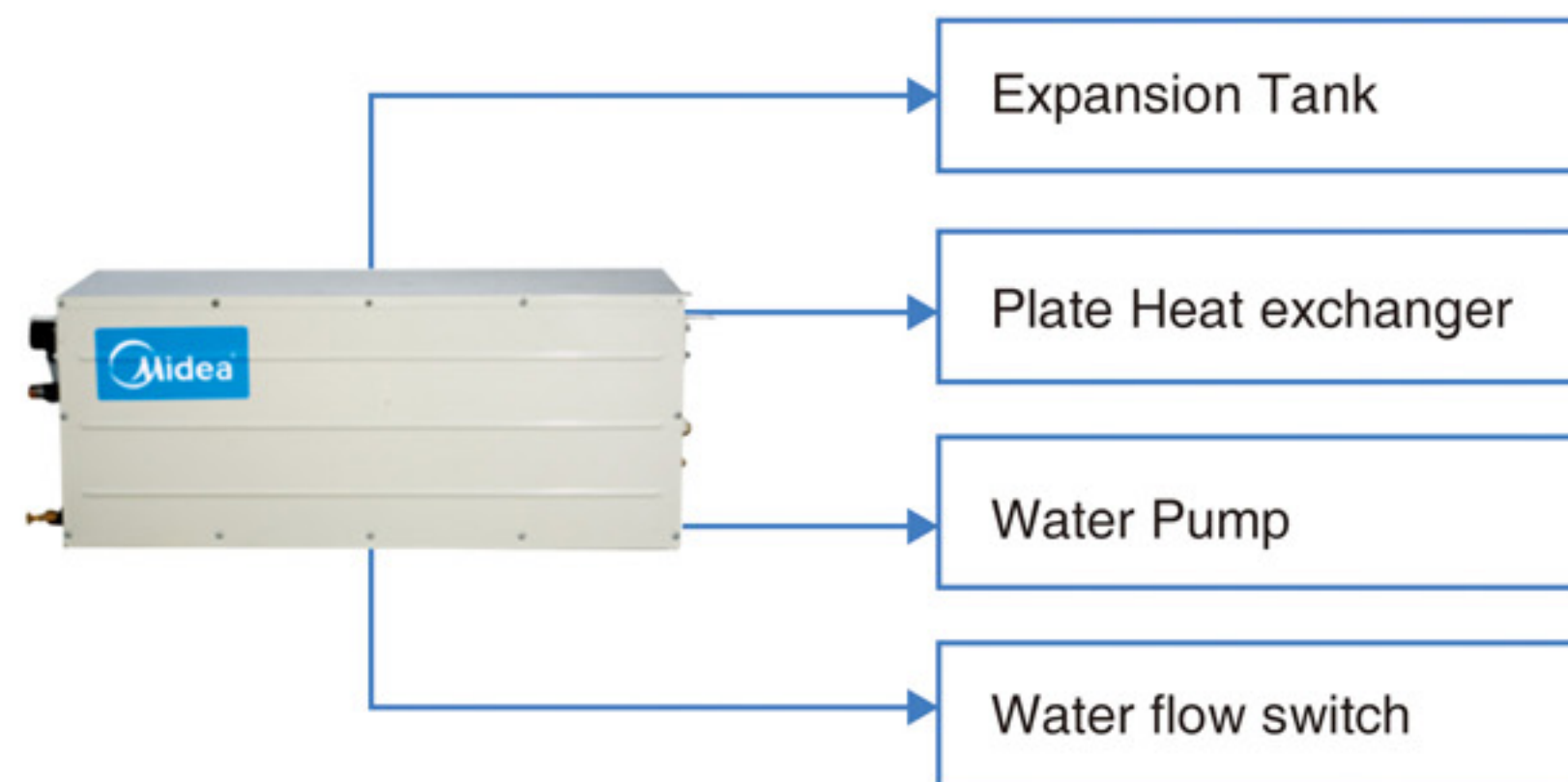


## For Split Chiller

- By adopting digital scroll compressor, the capacity can be stepless adjusted and the chiller can bring you more comfortable living condition with less energy consumption.



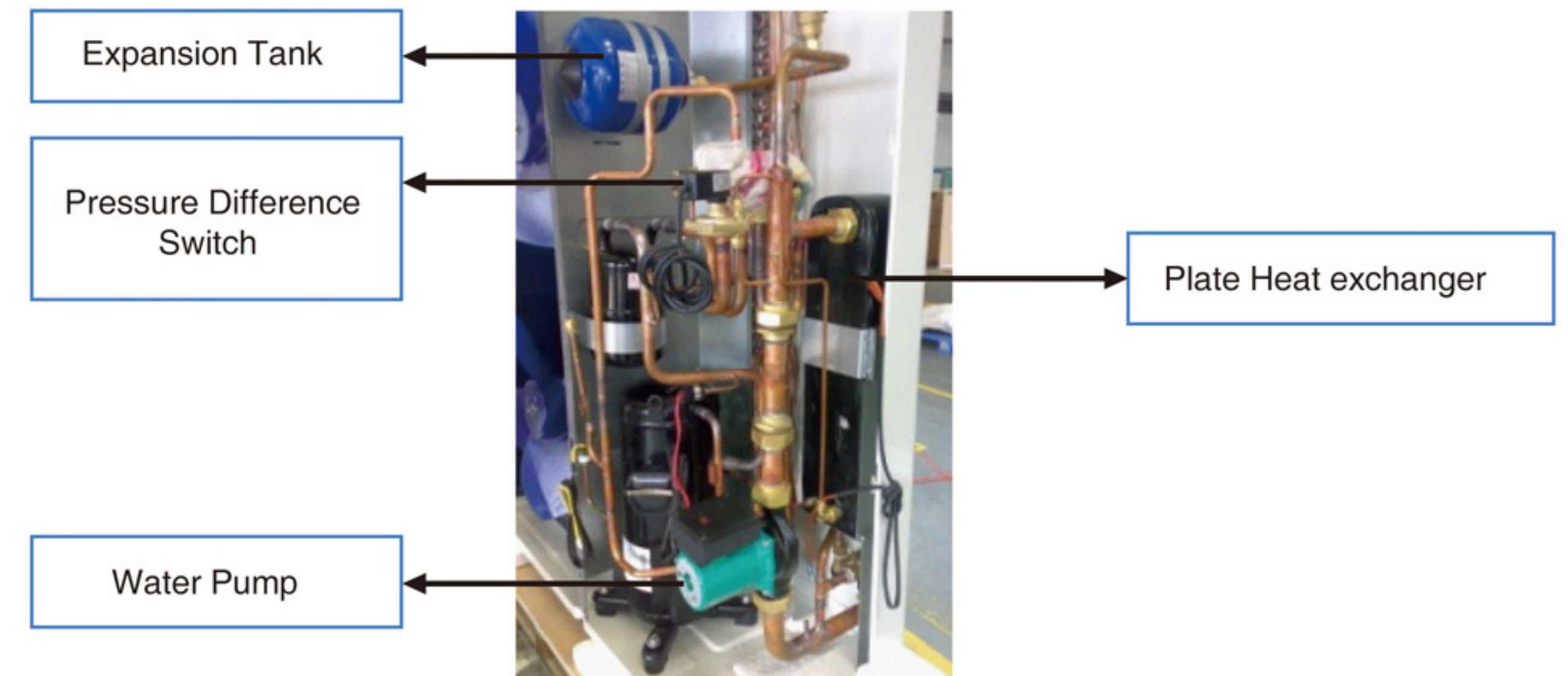
- Built-in with emergency switch: switch off the unit manually in any emergency case.
- The water pump and plate heat-exchanger is placed in the box and separated from the chiller, so it can be installed inside the room, so it can reduce energy loss, and in cold winter the water side can avoid freezing.



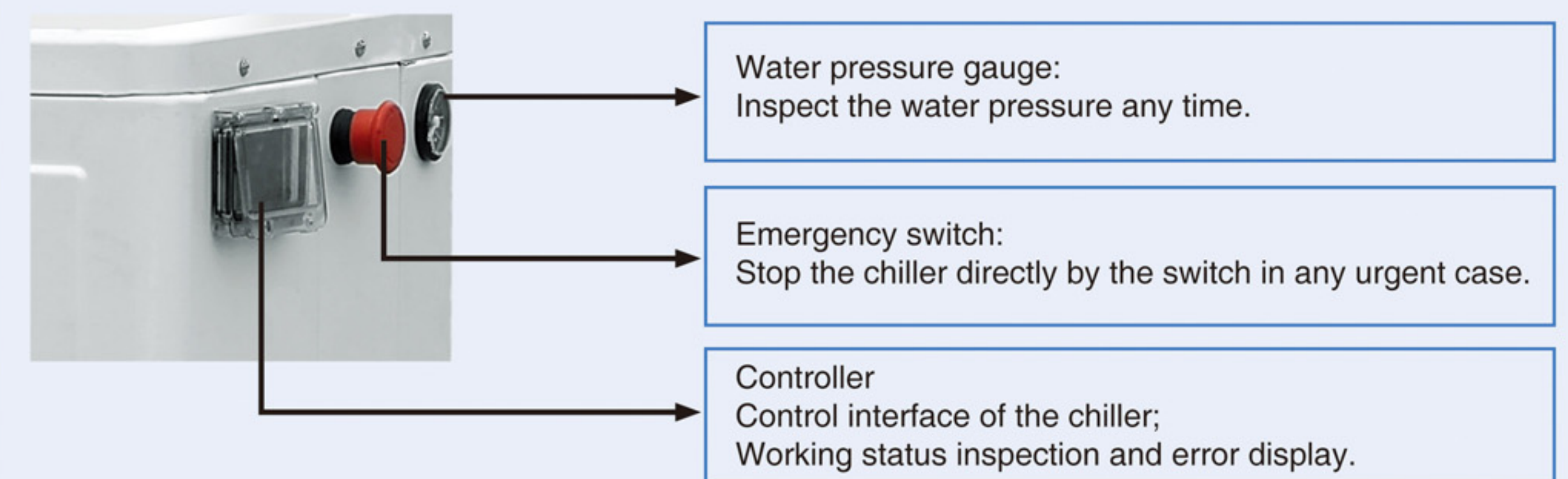
- New design controller adopts the RS485 communication protocol, the length of the communication wire can be 1200m long at the most. It can control the chiller and fan coil unit together, even centralized control to all the fan coil units in one chiller system.

## For Unitary Chiller

- Built-in with water pump and expansion tank, only need to connect the water pipe makes installation very simple.







- Built-in with emergency switch: switch off the unit manually in any emergency case.
- Built-in with water pressure gauge.
- Built-in with controller inside the chiller and can be controlled in the room by remote control keyboard kit.

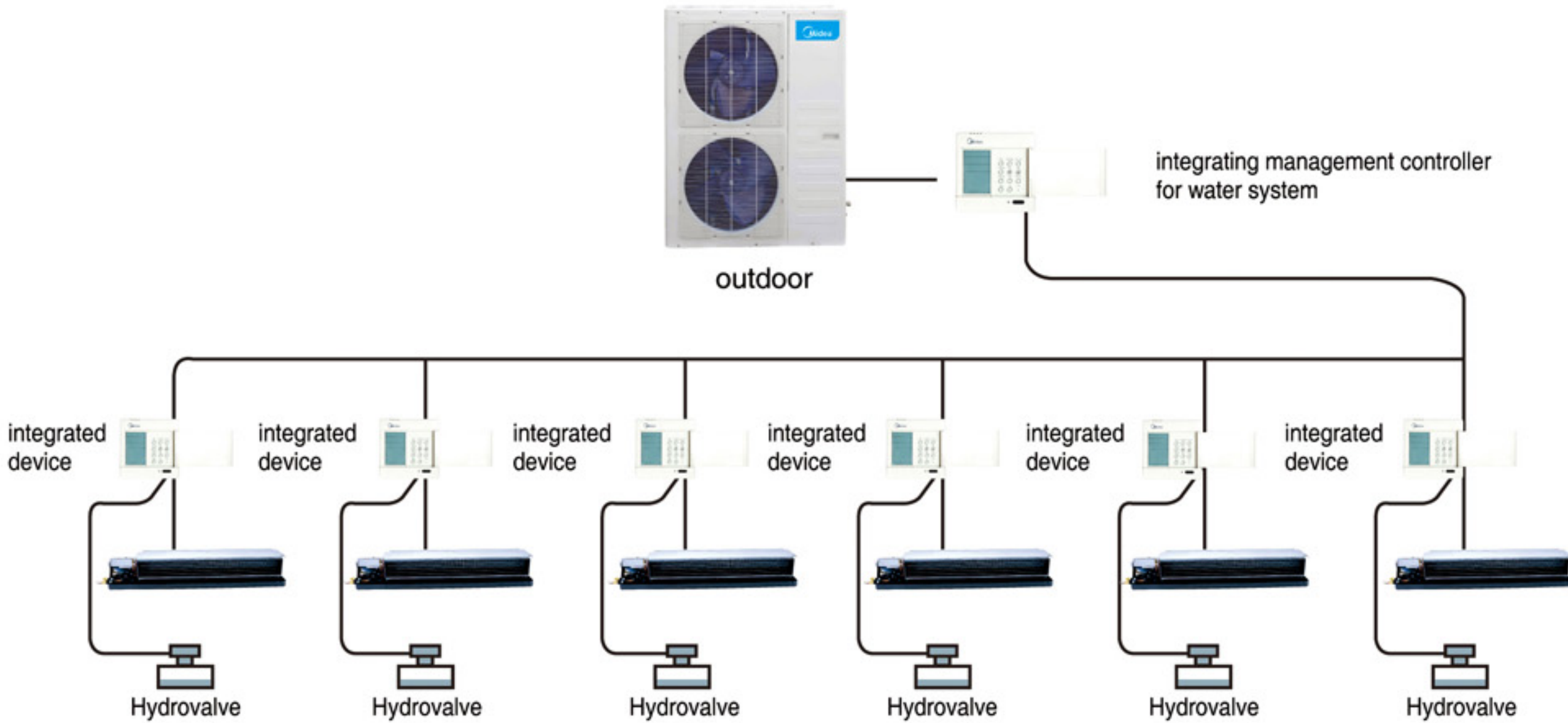




Accessories

Item	Model	Description	Appearance
Water pump box	CE-SBX/N1-01 CE-SBX/N1-01A	Built-in with expansion tank, water pump box, plate type heat exchanger, water flow switch, easy for installation.	
Wired controller	KJR-08B/BE	Suitable for air-cooled chiller system, control function as ON/OFF/Mode select/Temp. setting/Query/Power failure memory	
FCU Central controller	KJR-07B	It is used for controlling fan coil units . One mini chiller system can connect to a maximum of 15 indoor fan coils. If there is a centralized manager, the number can reach to 16.	
Remote control keyboard kit	SKW 210	LCD remote terminal with integrated room temperature control	

- Water pump box includes two types, matched with different capacity chillers. It is made up of water pump and plate heat-exchanger, and the pumping head is 20m.
- The controllers adopt RS485 communication protocol, the communication wire can be 1200m at most.
- The controllers have following functions:
  - Only control the chiller unit
  - Control single chiller unit and fan coil unit
  - Central control one chiller unit and several fan coil units
  - Realized by more than one controller (the quantity of controller is decided by the actual installation)



Specifications

Model			MGC-F05W/N1	MGC-F07W/N1	MGC-F09W/N1	MGC-F10W/N1
Power supply		V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
Cooling	Capacity	kW	5	7.2	9.0	10.5
	Input	W	1938	2755	3540	3614
Heating	Capacity	kW	5.5	7.7	9.5	12
	Input	W	1987	2834	3820	4004
Outdoor unit	Refrigerant type		R410A	R410A	R410A	R410A
	Compressor type		Rotary	Rotary	Scroll	Scroll
	Motor input (Hi/Lo)	W	220	220	185/120	185/120
	Water pump Input (H/M/L)	W	93/67/46	93/67/46	210/175/120	210/175/120
	Pumping head	m	5.5	5.5	8.5	8.5
Noise level (sound power level)		dB(A)	55	56	58/49	60/50
Water flow volume		m³/h	0.86	1.24	1.54	1.74
Plate heat-exchanger water pressure drop		kpa	21	35	42	44
Water inlet pressure (Max./Min. )		kpa	500/150	500/150	500/150	500/150
Water inlet/outlet pipeline diameter		mm	DN25	DN25	DN32	DN32
Dimension	Net (W×H×D)	mm	990×966×354	990×966×354	940×1245×360	940×1245×360
	Packing (W×H×D)	mm	1120×1100×435	1120×1100×435	1058×1380×438	1058×1380×438
Net/ Gross weight		kg	83/89	94/100	138/145	138/145
Control type			Wired controller	Wired controller	Wired controller	Wired controller

Model			MGC-F10W/SN1	MGC-F12W/SN1	MGC-F14W/SN1	MGC-F16W/SN1
Power supply		V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling	Capacity	kW	10.5	12	14	16
	Input	W	3930	4410	4859	6430
Heating	Capacity	kW	12	14	16.12	18
	Input	W	4240	4643	5218	6444
Outdoor unit	Refrigerant type		R410A	R410A	R410A	R410A
	Compressor type		Scroll	Scroll	Scroll	Scroll
	Motor input (Hi/Lo)	W	185/120	185/120	185/120	185/120
	Water pump Input (H/M/L)	W	210/175/120	210/175/120	210/175/120	210/175/120
	Pumping head	m	8.5	8.5	8.5	8.5
Noise level (sound power level)		dB(A)	58/48	59/49	60/50	60/51
Water flow volume		m³/h	1.72	2.0	2.4	2.8
Plate heat-exchanger water pressure drop		kpa	44	40	34	38
Water inlet pressure (Max./Min. )		kpa	500/150	500/150	500/150	500/150
Water inlet/outlet pipeline diameter		mm	DN32	DN32	DN32	DN32
Dimension	Net (W×H×D)	mm	940×1245×360	1070×1249×420	1070×1249×420	1070×1249×420
	Packing (W×H×D)	mm	1058×1380×438	1188×1385×498	1188×1385×498	1188×1385×498
Net/ Gross weight		kg	131/139	137/145	145/160	142/150
Control type			Wired controller	Wired controller	Wired controller	Wired controller