

Commercial Air Conditioners 2017/2018



DC Inverter Chillers & DC Fan Coil Units



INVERTER



Midea CAC After-service Application



iOS Version



Android Version



Midea CAC News Application



iOS Version

Commercial Air Conditioner Division

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Note: Product specifications change from time to time as product improvements and developments are released and may vary from those in this document.

Midea CAC

Midea CAC is a key division of the Midea Group, a leading producer of consumer appliances and provider of heating, ventilation and air conditioning solutions. Midea CAC has continued with the tradition of innovation upon which it was founded, and emerged as a global leader in the HVAC industry. A strong drive for advancement has created a groundbreaking R&D department that has placed Midea CAC at the forefront of a competitive field. Through these independent efforts and joint cooperation with other global enterprises, Midea has supplied thousands of innovative solutions to customers worldwide.

There are three production bases: Shunde, Chongqing and Hefei.

MCAC Shunde: 38 product lines focusing on VRF, Split Products, Heat Pump Water Heaters, and AHU/FCU.

MCAC Chongqing: 14 product lines focusing on Water Cooled Centrifugal/Screw/Scroll Chillers, Air Cooled Screw/Scroll Chillers, and AHU/FCU.

MCAC Hefei: 11 product lines focusing on VRF, Chillers, and Heat Pump Water Heaters.

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500

Midea Company
Introduction



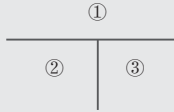
Midea CAC
Introduction



- 2016 >> Strategic alliance between Midea and Italy's Clivet
- 2015 >> JV with Carrier in China in chiller field, launched the unitary all DC inverter type Aqua Mini Chiller
- 2014 >> Launched the DC Inverter Fan Coil Units
- 2013 >> Launched the super high efficiency centrifugal chiller with full falling film technology
- 2012 >> Formed Midea-Carrier JV Company in India and HK
- 2010 >> Built the 3rd manufacturing base in Hefei
- 2009 >> Launched the unitary fixed type Aqua Mini Chiller
- 2008 >> Launched the split digital type Aqua Mini Chiller
- 2006 >> Launched the first VSD centrifugal chiller
- 2004 >> Acquired MGRE entered the chiller industry
- 2001 >> Cooperated with Copeland to develop the digital scroll VRF system
- 2000 >> Developed the first inverter VRF with Toshiba
- 1999 >> Entered the CAC field

Reference Projects

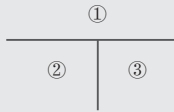
Hotel >>



- ① ASEM Resort Villa (Five Star)
- ② Sheraton Bandara Resort Hotel (Five Star)
- ③ Aston Kuta Bali Hotel (Five Star)



Residential >>

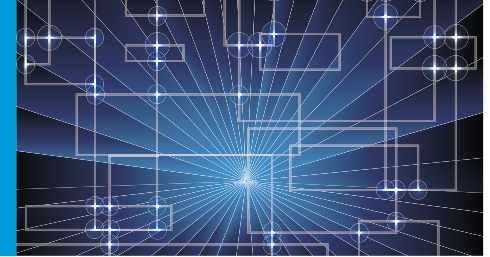


- ① Vanke Estate (Rancho Santa Fe Villas)
- ② Al Sila'a Emirati Housing Development (448 Villas)
- ③ Agile Estate (Clear Water Bay)



INVERTER

Contents



▶ 05 Aqua Mini Chiller



▶ 15 Aqua Tempo Super II



▶ 29 DC Fan Coil Units







Aqua Mini Chiller

Midea DC Inverter Air-cooled Mini Chiller has unitary structure design and hydraulic module is built in the outdoor unit. It is air-cooled water heat pump chiller so there is no need of cooling water tower at the condensing side.

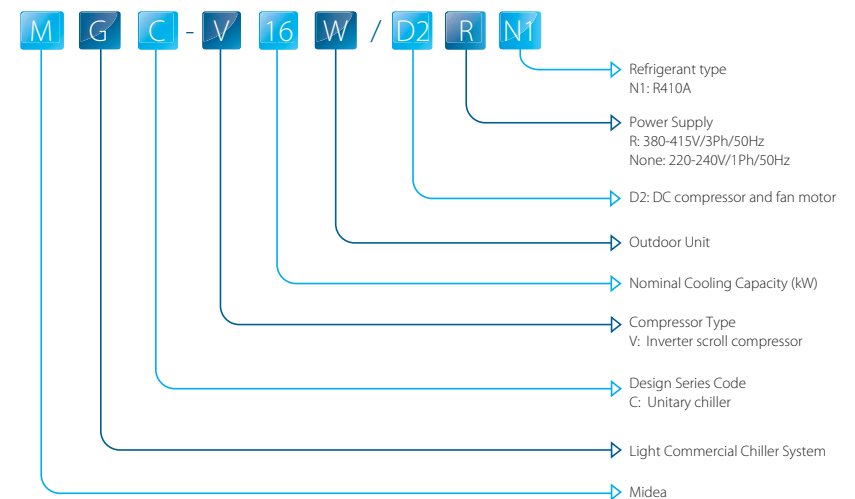
DC inverter Mini chillers' cooling capacity range is from 5kW to 18kW and it can freely combine with fan coil units and floor heating. These units are designed for residential applications or light commercial applications that require cold or hot water.

They are silent and compact units, easy to install and maintain. All units' energy efficiency at part load is A+ rated. Their high energy efficiency and high reliability ensure low running cost. So they are widely applied in apartments, villas, small business office buildings as well as restaurants, etc.

Product Lineup

Capacity (kW)	5	7	10	12	14	16	18
Appearance							
Power Supply							
220-240V/1Ph/50Hz	●	●	●	●			
380-415V/3Ph/50Hz				●	●	●	
208-230V/1Ph/60Hz			●				●

Nomenclature



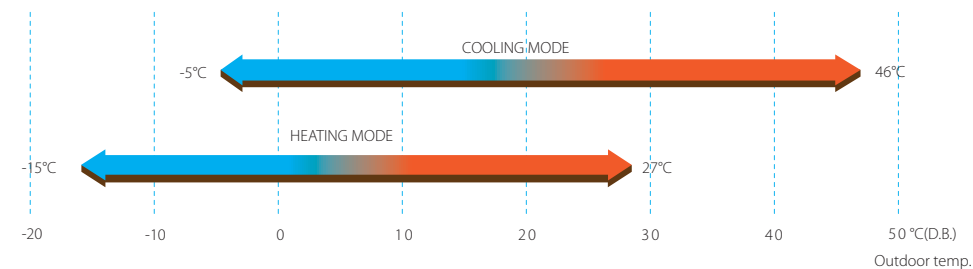
Features

Wide application range >>

- ❖ Nine models with cooling capacities from 5kW to 18kW and heating capacities from 5.5kW to 18.5kW. 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



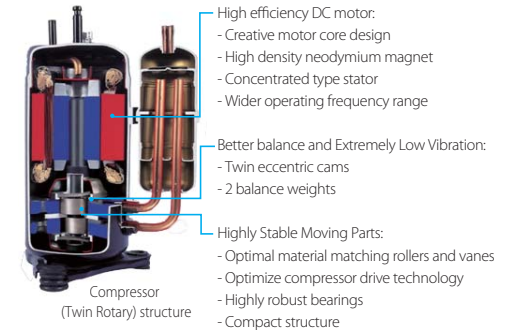
- ❖ Wide range of outlet water temperature
The water outlet temperature is 4-55°C.

A+ rated energy efficiency at part load >>

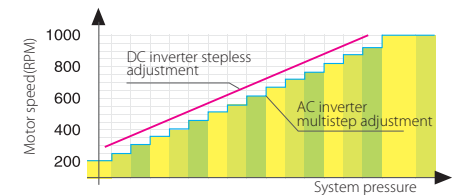
The DC inverter chiller integrates the latest technological innovations and ensures precise temperature regulation and highly efficient energy usage, making a significant contribution to the limiting the impact on the environment.



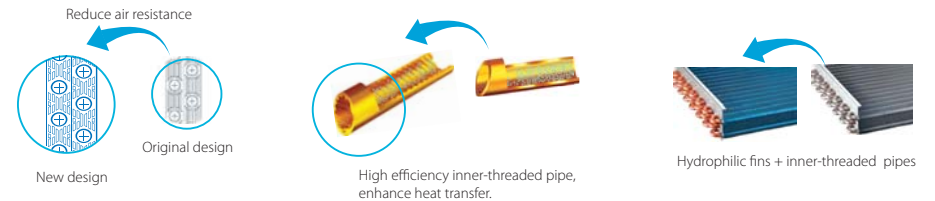
- ❖ DC inverter compressor
Twin rotary DC inverter compressor is used. The output of the outdoor unit can be adjusted precisely according to the energy demanded.



- ❖ DC fan motor
High efficiency DC fan motor saved power up to 50%.



- ❖ High performance heat exchanger



The new designed window fins enlarge the heat-exchanging area, decrease the air resistance, save more power and enhance heat exchange performance.

Hydrophilic film fins and inner-threaded copper pipes optimize heat exchange efficiency.

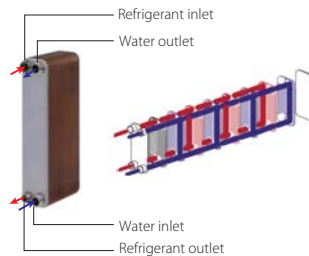
The specially coated blue fins enhance durability and protect against corrosion from air, water and other corrosive agents, assures a longer coil service life.

Advanced technology >>

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

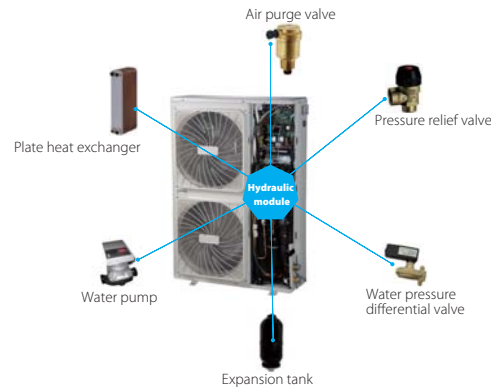


- ❖ EXV is used for stable and accurate gas flow control.
- ❖ High efficiency plate heat exchanger
Plate heat exchanger uses metal plates to transfer heat between refrigerant and water. The fluids are exposed to a much larger surface area because the fluids spread out over the plates, so both heat transfer 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, which is A degrade efficiency standard.



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, limiting the installation to straight-forward operations like connection of the power supply, the water supply and the air distribution FCUs.
- ❖ The units are equipped with axial fans so they can be installed directly outdoors.



Easy control >>

- ❖ Remote ON/OFF and remote cool/heat functions.



- ❖ Controller built-in in unit panel used to perform all related operations as the user interface as well as fast diagnosis of possible incidents and their history.

- 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

220-240V/1Ph/50Hz

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(1.9-5.8)	7.0(2.1-7.8)	10.0(2.9-10.5)	11.2(3.1-12.0)
	Rated input	kW	1.55	2.26	3.03	3.50
	Rated current	A	6.8	9.9	13.0	15.4
	EER		3.23	3.10	3.30	3.20
	SEER		4.22	3.76	3.89	4.09
Cooling ²	Capacity	kW	5.6	8.0	10.6	12.2
	Rated input	kW	1.15	1.85	2.30	2.65
	EER		4.87	4.32	4.24	4.60
Heating ³	Capacity	kW	6.2(2.1-7.0)	8.0(2.3-9.0)	11.0(3.2-12.0)	12.3(3.3-13.2)
	Rated input	kW	1.90	2.54	3.24	3.78
	Rated current	A	8.3	11.0	13.8	16.6
	COP		3.26	3.15	3.4	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		4.60	4.10	4.34	4.45
	SCOP		3.55	3.46	3.34	3.46
Seasonal space heating energy efficiency (η _s)			138.9%	135.3%	130.7%	135.4%
Seasonal space heating energy efficiency class			A+	A+	A+	A+
Max. input current		A	11.4	13.7	25	19.1
Compressor	Type		Rotary			
Outdoor fan	Motor type		DC Motor			
Outdoor fan	Air flow	m ³ /h	5,100	5,100	7,000	7,000
Air heat exchanger	Type		Fin-coil			
Water heat exchanger	Type		Plate heat exchanger			
Water heat exchanger	Water volume	L	0.53	0.53	0.7	0.78
	Water flow	m ³ /h	0.86	1.20	1.72	1.92
	Water pressure drop	kPa	15	15	18	18
Water pump	Pump head	m	5.5	5.5	8.5	8.5
	Water volume	L/min	4	4	4	4
Expansion tank volume		L	2	2	3	3
Refrigerant	Type		R410A			
	Charged volume	kg	2.5	2.5	2.8	2.8
Throttle type			Electronic expansion valve			
Sound power level		dB(A)	63	66	68	68
Sound pressure level ⁵		dB(A)	58	58	59	59
Unit net dimension (WxHxD)		mm	990x966x354	990x966x354	970x1,327x400	970x1,327x400
Packing dimension (WxHxD)		mm	1,120x1,100x435	1,120x1,100x435	1,082x1,456x435	1,082x1,456x435
Net/ Gross weight		kg	81/91	81/91	110/121	110/121
The Max. and Min. water inlet pressure ⁶		kPa	500/150			
Pipe connections		Water inlet/outlet	1"	1"	1-1/4"	1-1/4"
Controller			Electronic controller (standard), wired controller (optional)			
Ambient temperature range	Cooling	°C	-5-46			
	Heating	°C	-15-27			
Water outlet temperature range	Cooling	°C	4-20			
	Heating	°C	30-55			

Nominal capacity is based on the following conditions:

1. Condenser air in 35°C, Evaporator water in/out 12/7°C
2. Condenser air in 35°C, Evaporator water in/out 23/18°C
3. Evaporator air in 7°C °C85% R.H., Condenser water in/out 40/45°C
4. Evaporator air in 7°C °C85% R.H., Condenser water in/out 30/35°C
5. At 1m in open field fan side (sound pressure)
6. The maximum and minimum operating pressure values refer to the activation of the pressure switches
7. The above data test reference standard EN14511:2013; EN14825:2013; EN50564:2011; EN12102:2011; (EU)No811:2013; (EU)No813:2013; OJ 2014/C 207/02:2014

380-415V/3Ph/50Hz

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(3.1-12.0)	12.5(3.3-14.0)	14.5(3.5-15.5)
	Rated input	kW	3.38	3.91	4.68
	Rated current	A	5.5	6.4	7.7
	EER		3.31	3.20	3.10
	SEER		4.16	4.27	4.38
Cooling ²	Capacity	kW	12.2	14.2	15.6
	Rated input	kW	2.60	3.10	3.60
	EER		4.70	4.58	4.33
Heating ³	Capacity	kW	12.3(3.3-13.2)	13.8(3.5-15.4)	16.0(3.7-17.0)
	Rated input	kW	3.72	4.25	4.85
	Rated current	A	6.1	7.0	8.0
	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
	SCOP		3.66	3.78	3.39
Seasonal space heating energy efficiency (η _s)			143.5%	148.3%	132.6%
Seasonal space heating energy efficiency class			A+	A+	A+
Max. input current		A	8.9	9.6	10.1
Compressor	Type		Rotary		
Outdoor fan	Motor type		DC motor		
Outdoor fan	Air flow	m ³ /h	7,000	7,000	7,000
Air heat exchanger	Type		Fin-coil		
Water heat exchanger	Type		Plate		
Water heat exchanger	Water volume	L	0.78	0.78	1.06
	Water flow	m ³ /h	1.92	2.15	2.49
	Water pressure drop	kPa	18	18	19
Water pump	Pump head	m	8.5	8.5	8.5
	Water volume	L/min	4	4	4
Expansion tank volume		L	3	3	3
Refrigerant	Type		R410A		
	Charged volume	kg	2.8	2.9	3.2
Throttle type			Electronic expansion valve		
Sound power level		dB(A)	68	70	72
Sound pressure level ⁵		dB(A)	62	62	62
Unit net dimension (WxHxD)		mm	970x1,327x400		
Packing dimension (WxHxD)		mm	1,082x1,456x435		
Net/ Gross weight		kg	110/121	111/122	111/122
The Max. and Min. water inlet pressure ⁶		kPa	500/150		
Pipe connections		Water inlet/outlet	1-1/4"		
Controller			Electronic controller (standard), wired controller (optional)		
Ambient temperature range	Cooling	°C	-5-46		
	Heating	°C	-15-27		
Water outlet temperature range	Cooling	°C	4-20		
	Heating	°C	30-55		

Nominal capacity is based on the following conditions:

1. Condenser air in 35°C, Evaporator water in/out 12/7°C
2. Condenser air in 35°C, Evaporator water in/out 23/18°C
3. Evaporator air in 7°C °C85% R.H., Condenser water in/out 40/45°C
4. Evaporator air in 7°C °C85% R.H., Condenser water in/out 30/35°C
5. At 1m in open field fan side (sound pressure)
6. The maximum and minimum operating pressure values refer to the activation of the pressure switches
7. The above data test reference standard EN14511:2013; EN14825:2013; EN50564:2011; EN12102:2011; (EU)No811:2013; (EU)No813:2013; OJ 2014/C 207/02:2014

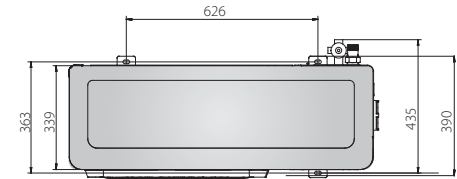
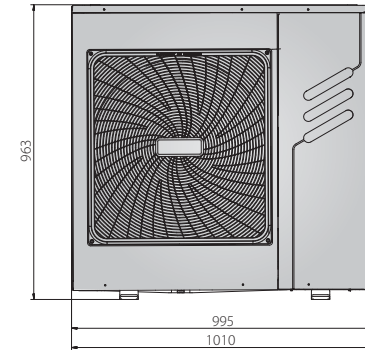
208-230V/1Ph/60Hz

Model			MGC-V10W/D2/VN1	MGC-V18W/D2/VN1
Power supply		V/Ph/Hz	208-230/1/60	
Cooling	Capacity	kBtu/h	36.0(10.0-37.0)	58.0(13.0-62.0)
		kW	10.5(2.9-10.8)	17.0(3.8-18.1)
	Input	kW	3.11	5.60
	EER		3.39	3.10
Heating	Capacity	kBtu/h	38.0(11.0-41.0)	63.0(14.0-65.0)
		kW	11.0(3.2-12.0)	18.5(4.0-19.0)
	Input	kW	3.14	5.78
	COP		3.50	3.20
Max input current		A	8.9	9.6
Compressor	Type		Rotary	
Outdoor fan	Motor type		DC motor	
	Air flow	CFM(m ³ /h)	4,120(7,000)	4,120(7,000)
Air heat exchanger	Type		Fin-coil	
Water heat exchanger	Type		Plate	
	Water volume	L	0.7	1.06
	Water flow	CFM(m ³ /h)	1.01(1.72)	1.72(2.92)
	Water pressure drop	kPa	18	23
Water pump	Pump head	m	8	8
	Water volume	L/min	4	4
Expansion tank volume		L	3	3
Refrigerant	Type		R410A	
	Charged volume	lbs/kg	6.2/2.8	7.5/3.4
Throttle type			Electronic expansion valve	
Sound pressure level ¹		dB(A)	56	60
Unit net dimension (WxHxD)		inch	38-3/16x52-1/4x31-1/2	
		mm	970x1,327x400	
Packing dimension (WxHxD)		inch	42-19/32x57-21/64x17-1/8	
		mm	1,082x1,456x435	
Net/ Gross weight		lbs	243/267	247/271
		kg	110/121	112/123
The Max and Min. water inlet pressure ⁴		kPa	500/150	
Pipe connections	Water inlet/outlet	inch	1-1/4"	
Controller			Electronic controller (standard), wired controller (optional)	
Ambient temperature range	Cooling	°C	-5-46	
	Heating	°C	-15-27	
Water outlet temperature range	Cooling	°C	4-20	
	Heating	°C	30-55	

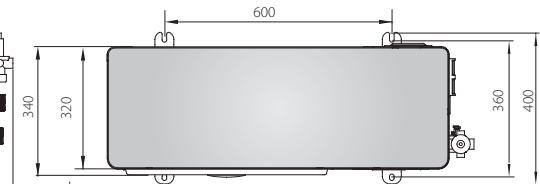
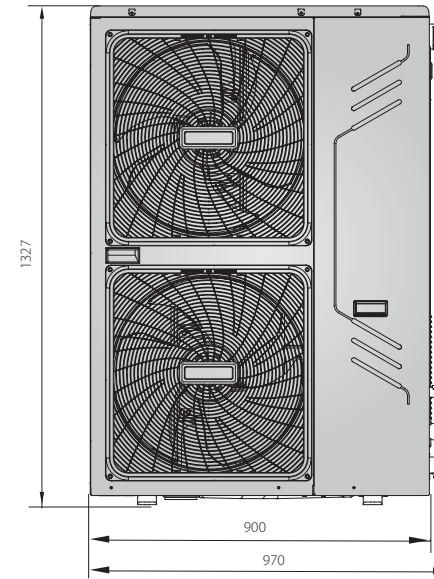
1. Cooling: Chilled water inlet/outlet temperature: 12/7°C, outdoor ambient temperature 35°C DB.
 2. Heating: Warm water inlet/outlet temperature: 40/45°C, outdoor ambient temperature 7°C DB/6°C WB.
 3. At 1m in open field fan side (sound pressure).
 4. The maximum and minimum operating pressure values refer to the activation of the pressure switches.

Unit Dimensions (Unit: mm)

5/7kW >>



10-18kW >>





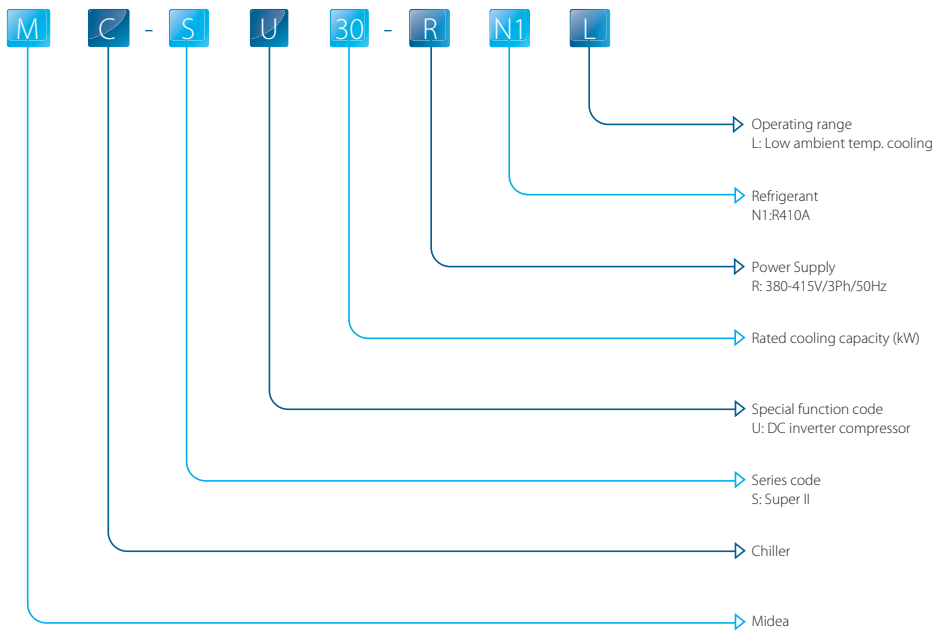
DC Inverter Air-cooled Chiller Aqua Tempo Super II Series

The Aqua Tempo Super II Series is Midea's latest DC inverter air-cooled chiller. Its compact design and excellent performance make it suitable for a wide range of applications. There are two models (MC-SU30-RN1L and MC-SU60-RN1L) both of which can operate in cooling mode with ambient temperatures of up to 52°C and with outlet water temperature as low as 0°C. The water flow switch and wired controller are both built-in, making installation more convenient. A hydraulic module with water pump and expansion tank can be added as a customization option to meet special installation situation requirements.

- ❖ High Efficiency
- ❖ Wide Application Range
- ❖ Advanced Technology
- ❖ Enhanced Comfort
- ❖ Easy Control
- ❖ Easy Installation and Service



Nomenclature



Product lineup

Model	MC-SU30-RN1L	MC-SU60-RN1L
Appearance		
Power supply	380-415V/3Ph/50Hz	

High Efficiency

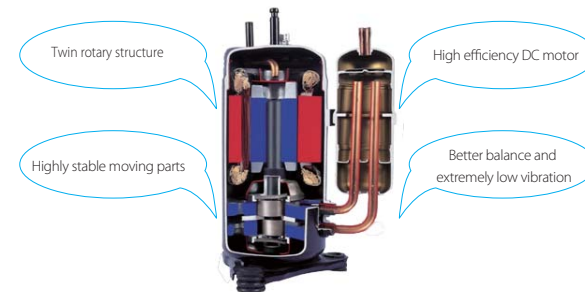
A++ rated energy efficiency >>

The Aqua Tempo Super II Series DC inverter air-cooled chillers are compliant with the EU's Energy-Related Products Directive (2009/125/EC) and both have A++ seasonal space heating energy efficiency ratings.



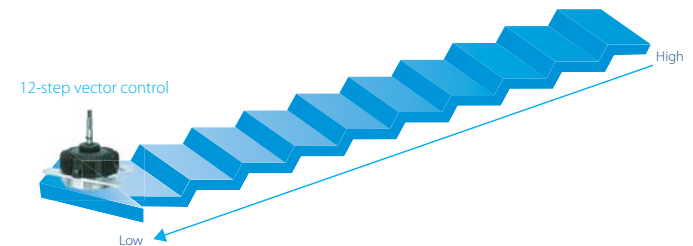
Compressor >>

At the heart of the chiller lies a world-leading DC inverter twin rotary compressor. The compressor's innovative design and numerous high performance features reduce power consumption by 25%.



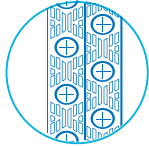
DC fan motors >>

Fan speed is controlled according to the system pressure and system load, reducing power consumption by 30%.



High performance heat exchanger >>

Large inner grooved copper tube and hydrophilic aluminum fins greatly improve air side heat exchange efficiency.



New design, reduces air resistance



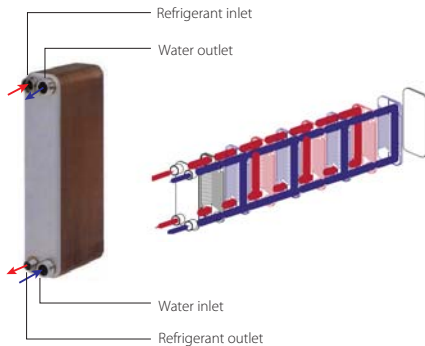
High efficiency inner grooved tube, enhances heat transfer.



Hydrophilic aluminum fins + inner grooved tubes

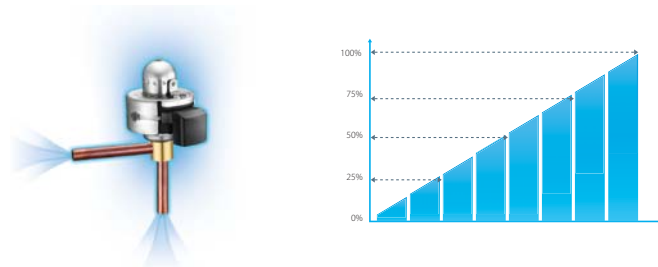
High efficiency plate heat exchanger >>

Water side heat exchanger uses multiple metal plates to achieve efficient heat transfer between refrigerant and water.



Precisely flow control >>

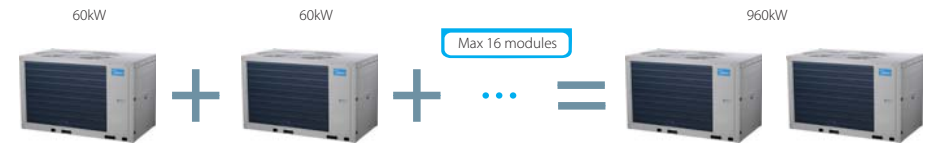
Patented liquid distribution components maximize performance and minimize impact of defrosting operation. 480-step EXV with capillary tube allows stable and accurate gas flow control. Fast response results in higher efficiency and improved reliability.



Wide Application Range

Flexibility >>

Modular design allows up to 16 units to be connected together, giving a system cooling/heating capacity range of 30kW to 960kW.

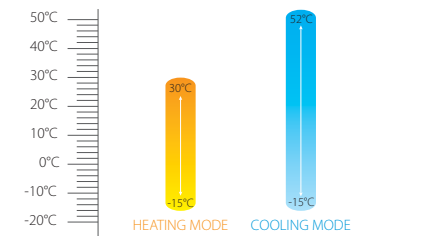


Compatible with fan coil units and air handling units.



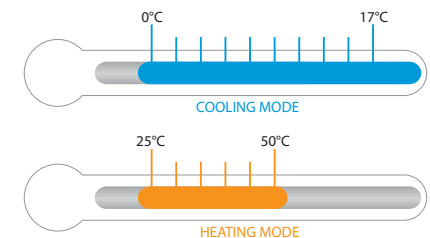
Ambient temperature >>

Stable operation even under extreme conditions: -15°C to 52°C.



Outlet water temperature >>

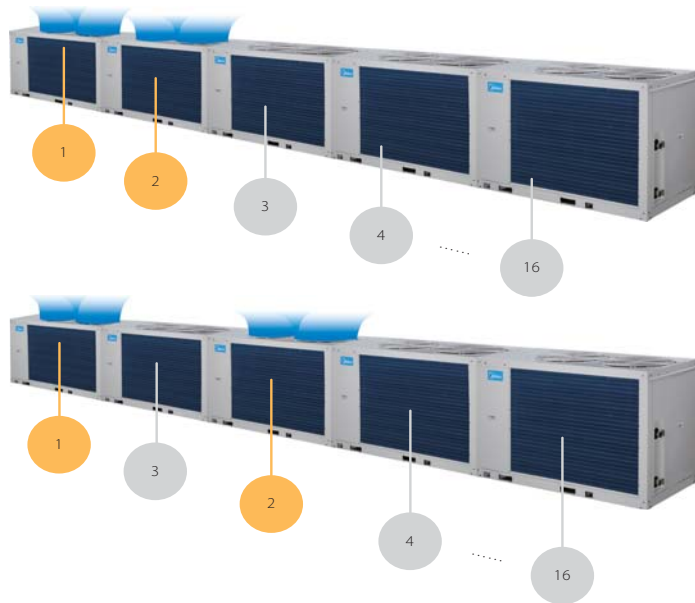
Wide outlet water temperature range with lowest outlet temperature in cooling mode of 0°C.



Advanced Technology

Duty cycling >>

Duty cycling equalizes the running time of the outdoor units in a multiple-unit system, significantly extending compressor lifespan.



Back up >>

In a multi-unit system, if one module fails, the other modules provide backup so that the system can continue operating.



Integrated inverter module board >>

Integrated inverter module board combines inverter module, three-phase bridge rectifier, capacitors and thermistors, greatly simplifying wiring connections and current loop and increasing control system stability.



Highly-reliable MCU >>



Fast, highly-reliable 144-pin Renesas Electronics MCU combines communication and control functions on one chip.

Red LED display >>

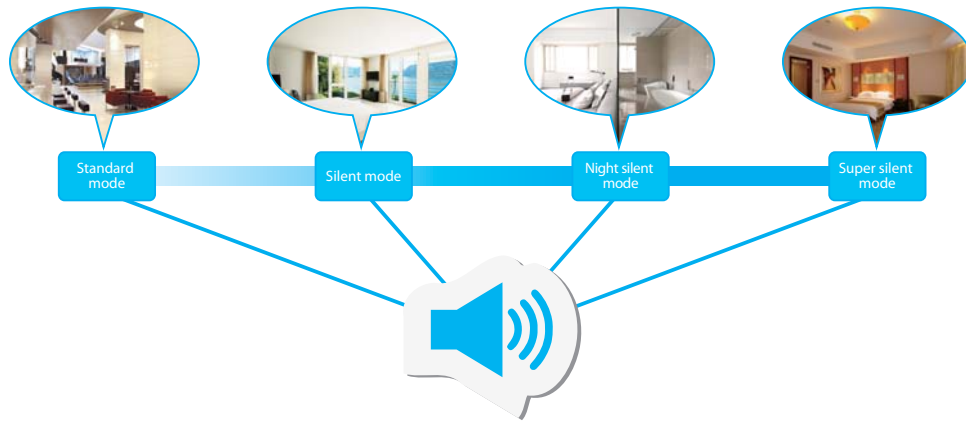


Red LED display is easy to read even in bright sunshine.

Enhanced Comfort

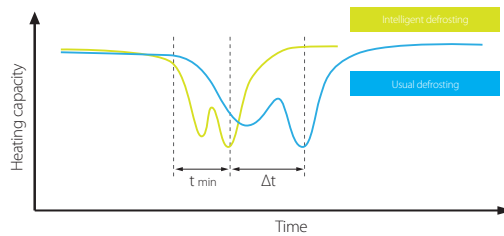
Multiple silent modes >>>

Three different silent modes enable noise reduction to suit time of day and ambient noise levels.



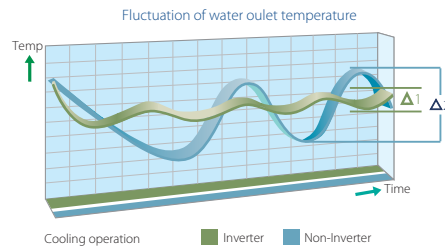
Intelligent defrosting technology >>>

The intelligent defrosting program calculates the time required for defrosting according to the actual system status, eliminating heat losses from unnecessary defrosting. A specialized defrosting valve reduces time required for defrosting to as little as four minutes.



Rapid cooling or heating >>>

The DC inverter compressor reaches full capacity rapidly, providing quicker cooling or heating with lower levels of temperature fluctuation during the cooling/heating operation.



Easy Control

Easy control >>>

Touch key wired controller as standard.



Additional control >>>

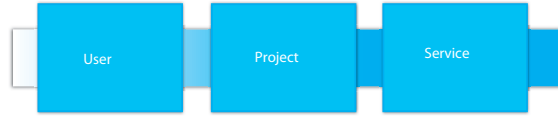
ON/OFF, Cool/Heat and Alarm ports on chiller PCBs allow switches to be connected to enable additional remote control functionality.



Note: When the additional control functionality is added, the ON/OFF control and mode selection functionality of the wired controller is disabled.

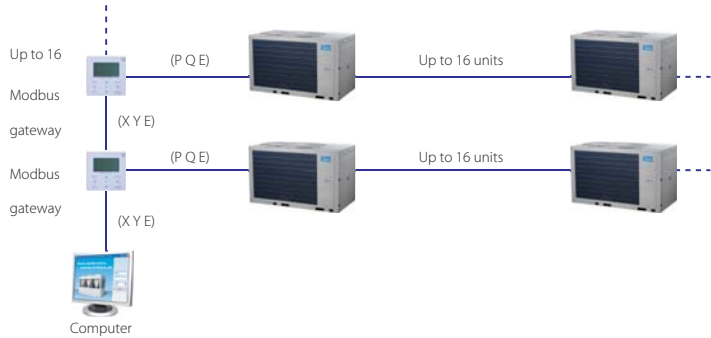
Three user levels >>

Three different user levels ensure users can easily access control functions and allow engineers convenient access to operating parameters.

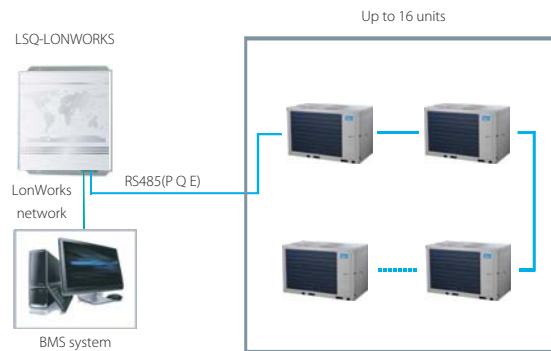


Modbus gateway (customization option) >>

Modbus gateway functionality can be added by adding X, Y, E ports to the wired controller. Up to 16 wired controllers can be connected together, with each controller controlling up to 16 units.



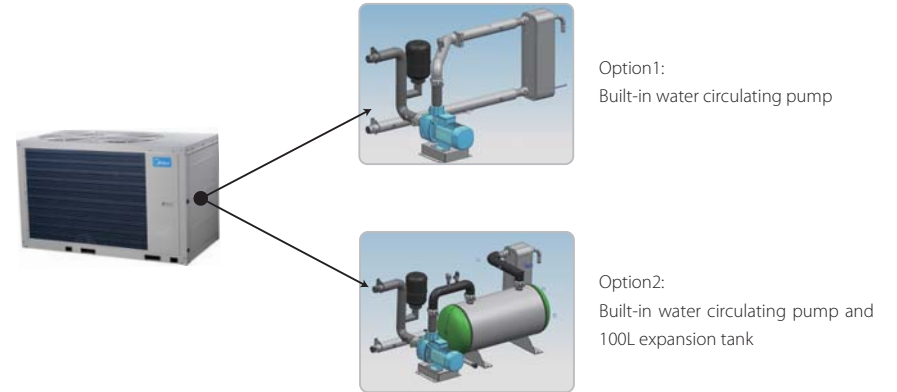
LonWorks gateway (customization option) >>



LonWorks gateway acts as an interface to a building management system.

Easy Installation and Service

Built-in hydraulic module (customization option) >>



Notes:
 1. Option1 pump head 19m on MC-SU30-RN1L and 15m on MC-SU60-RN1L.
 2. Option2 is only available on MC-SU30-RN1L.

Built in water flow switch >>

Built-in water flow switch reduces installation time and reduces costs.



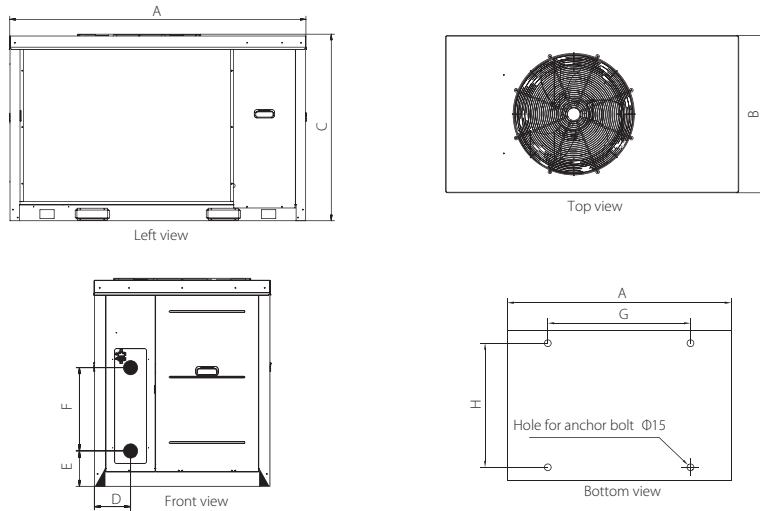
Built-in wired controller >>

Built-in wired controller in the electric control box saves installation space and time.

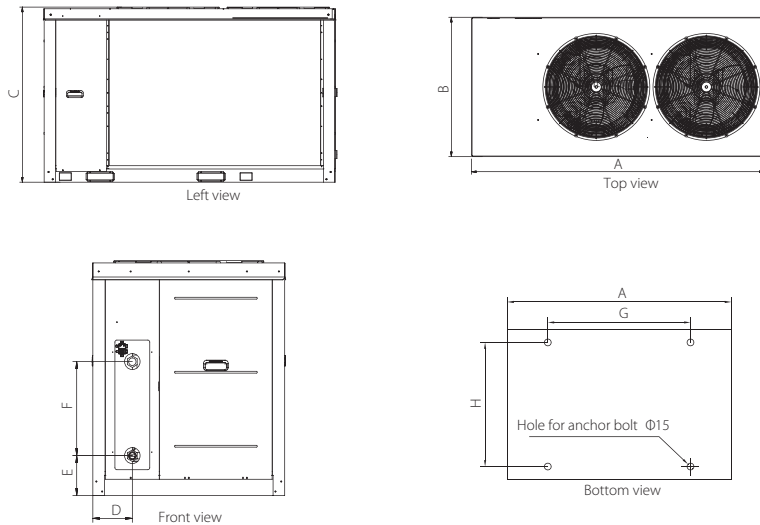


KJRM-120H/BMWKO-E

MC-SU30-RN1L



MC-SU60-RN1L



Model	A	B	C	D	E	F	G	H
MC-SU30-RN1L	1870	1000	1175	204	200	470	788	880
MC-SU60-RN1L	2220	1055	1325	234	210	470	1105	958

Model			MC-SU30-RN1L	MC-SU60-RN1L
Power supply		V/Ph/Hz	380-415/3/50	380-415/3/50
Cooling ¹	Capacity	kW	27	55
	Input power	kW	10.8	22.0
	EER		2.50	2.50
	SEER		4.41	4.20
Heating ²	Capacity	kW	31	61
	Input power	kW	10.5	20.3
	COP		2.95	3.00
	SCOP		4.01	3.85
Seasonal space heating energy efficiency class			A++	A++
Max. running current		A	18.0	36.8
Compressors	Type		Rotary	Rotary
	Quantity		1	2
Air side heat exchanger	Type		Finned tube	Finned tube
	Fan motor type		DC motor	DC motor
	Fan motor quantity		1	2
	Air flow rate	m ³ /h	12,500	24,000
Water side heat exchanger	Type		Plate	Plate
	Volume	L	2.44	5.17
	Water flow	m ³ /h	5	9.8
	Water pressure drop	kPa	60	80
Refrigerant system	Refrigerant type		R410A	R410A
	Refrigerant charge	kg	10.5	17.0
	Throttle type		EXV	EXV + Capillary
Sound power level		dB(A)	75.9	85.3
Sound pressure level ³		dB(A)	65.8	72.1
Net dimensions (WxHxD)		mm	1870x1175x1000	2220x1325x1055
Packed dimensions (WxHxD)		mm	1910x1225x1035	2250x1370x1090
Net/Gross weight		kg	300/310	480/490
Pipe connections	Water inlet/outlet	mm	DN40	DN50
Controller			Wired controller	Wired controller
Operating temperature range	Cooling	°C	-15 to 52	-15 to 52
	Heating	°C	-15 to 30	-15 to 30
Water outlet temperature range	Cooling ⁴	°C	0 to 20	0 to 20
	Heating	°C	25 to 55	25 to 55

- Note:
- Cooling: Chilled water inlet/outlet temp. 12/7°C; outdoor ambient temp. 35°C DB.
 - Heating: Warm water inlet/outlet temp. 40/45°C; outdoor ambient temp. 7°C DB/6°C WB.
 - Sound pressure level is measured at a position 1m in front of the unit and 1.1m above the floor in a semi-anechoic chamber.
 - With water outlet temperatures lower than 5°C antifreeze must be added.
 - Capacity and efficiency data calculated in accordance with EN14511.

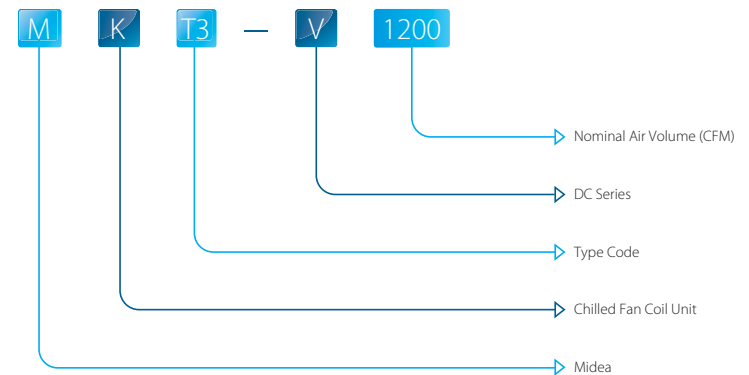


DC Fan Coil Units

Midea DC Fan Coil Units operate in high efficiency and low sound level due to the DC brushless fan motor. It contains cassette units, ceiling & floor units with or without cabinet, wall-mounted units and duct units. The air volume ranges from 150CFM to 1500CFM. It is a highly versatile product suitable for hospitals, office buildings, hotels, airports and various other applications.

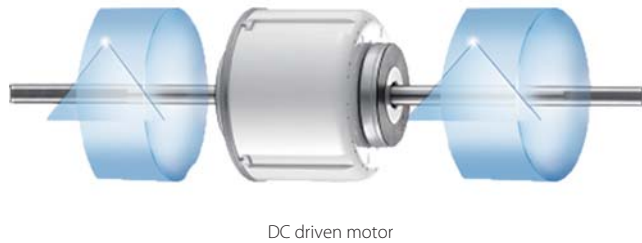


Nomenclature



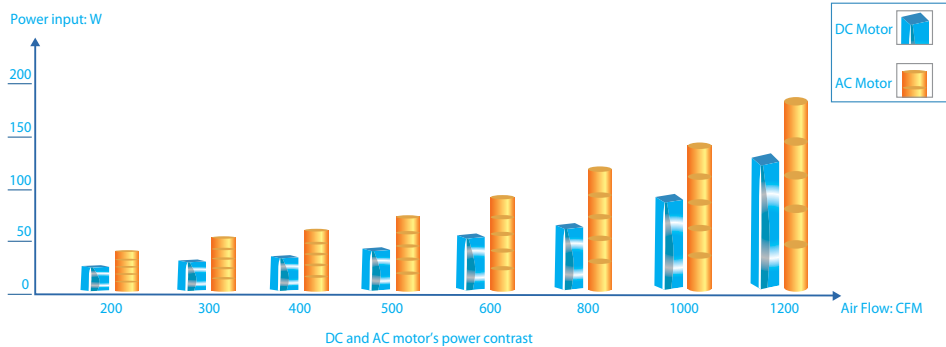
Advantage of Fan Coil Units with DC Brushless Fan Motor

The DC fan coil units are the new energy saving products improved with advanced DC driven technology. The DC fan coil units have advanced technology of high energy efficiency, low noise operation and precision temperature control, so are ideal for hospitals, office building, hotels, airports and various other applications.



Energy Efficiency, Comply with CE Regulation >>

The power consumption of DC driven fan coil units can be reduced up to 30% in comparison to corresponding AC type.



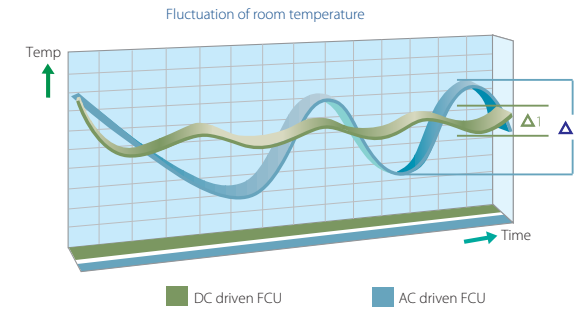
Quiet Operation >>

Unit noise is 2-5dB(A) lower compared to an AC motor fan coil unit, creating a quiet living environment.



Constant Level of Air Temperature and Humidity >>

The DC Inverter fan motor adjusts of air flow based on thermal load instantly providing less temperature fluctuation and an improved living environment.



Versatile Selection >>

Midea DC Fan Coil Units contain cassette units, ceiling & floor units with or without cabinet, wall-mounted units and duct units. The air volume ranges from 150CFM to 1500CFM. It is a highly versatile product suitable for hospitals, office buildings, hotels, airports and various other applications.



Cassette unit



Wall-mounted unit



Duct unit



Ceiling & floor unit with cabinet



Ceiling & floor unit with cabinet



Ceiling & floor unit without cabinet

Product Lineup

2-Pipe FCUs

Air volume (CFM)		150	200	250	300	400	450	500		600	750	800	850	900	950	1000	1200	1500
4-way cassette										■	■		■		■		■	
Compact 4-way cassette					■	■		■										
Duct			■		■	■		■		■		■				■	■	
Wall mounted				■	■	■		■		■								
Ceiling & floor		■		■	■	■	■	■		■		■		■				

4-Pipe FCUs

Air volume (CFM)		200	300	400	500	600	750	800		850	950	1000	1200	1500
4-way cassette						■	■			■	■		■	■
Compact 4-way cassette			■	■	■									

Note:
The standard power supply for all fan coil units is 220V-240V/50Hz; 208-230V/60Hz can be customized for some series fan coil units. For further information, please contact with our salesmen.

Cassette Series

4-way Cassette



Compact 4-way Cassette

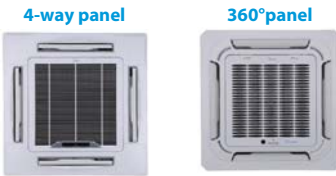


Various Selections >>

- ❖ Versions for 2/4 pipe system.
- ❖ Versions for compact/normal size.

Stylish Panel with Large Airflow Outlet >>

- ❖ 4-way air supply panel is standard for 4-way cassette.
- ❖ 360° air supply panel is standard for compact 4-way cassette.



Compact Design, Easy Installation >>

- ❖ For Compact Four-way Cassette: Extremely compact casing suits any room's decor and requires little space for installation on a low ceiling. Due to compact body and light weight, all models can be installed without a hoist.

High Efficiency and Low Sound Operation >>

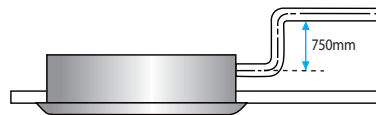
- ❖ Thanks to the DC brushless fan motor, the unit operates in high efficiency and low sound level.

Various Accessories Selections >>

- ❖ Safe factory-installed electric heater is optional.
- ❖ Extended drainage pan for better ceiling protection is optional.

High-lift Drain Pump >>

- ❖ Standard built-in drain pump with 750mm pump head for normal size and 500mm for compact size.



Fresh Air Intake >>

- ❖ Fresh air can enter through the cassette unit so you can enjoy even fresher air in a room.



2-Pipe 4-Way Cassette



Model		MKA-V600R	MKA-V750R	MKA-V850R	
Power supply	V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	
Air flow (H/M/L)	m³/h	1175/987/768	1229/1020/810	1451/1146/1012	
	CFM	691/580/451	722/600/476	853/674/595	
Cooling ¹	Capacity (H/M/L)	kW	5.93/5.3/4.4	6.12/5.45/4.6	
	Water flow rate(H/M/L)	m³/h	1.06/0.92/0.77	1.10/0.96/0.81	1.37/1.18/1.07
	Water pressure drop(H/M/L)	kPa	19.2/15.4/11	21.3/21.3/12.4	20.1/15.3/12.6
	Power input(H/M/L)	W	41/27/17	49/31/20	68/37/30
	Capacity (H/M/L)	kW	6.06/6.35/5.32	6.27/6.53/5.43	7.88/7.48/6.76
	Water flow rate(H/M/L)	m³/h	1.30/1.14/1.13	1.39/1.20/1.00	1.66/1.39/1.25
Heating ²	Capacity (H/M/L)	kW	8.42/7.37/6.06	8.62/7.49/6.27	10.37/8.72/7.88
	Water flow rate(H/M/L)	m³/h	1.06/0.92/0.77	1.10/0.96/0.81	1.37/1.18/1.07
	Water pressure drop(H/M/L)	kPa	16.9/12.7/8.6	19.1/14.8/10.6	18.2/13.6/11.1
	Power input(H/M/L)	W	42/28/17	44/32/19	66/37/28
	Capacity (H/M/L)	kW	8.42/7.37/6.06	8.62/7.49/6.27	10.37/8.72/7.88
	Water flow rate(H/M/L)	m³/h	1.06/0.92/0.77	1.10/0.96/0.81	1.37/1.18/1.07
Sound pressure level (H/M/L)	dB(A)	43/39/33	44/40/34	45/40/37	
	Type	DC Motor	DC Motor	DC Motor	
Fan motor	Quantity	1	1	1	
Fan	Type	Centrifugal, forward-curved Blades			
	Quantity	1	1	1	
Coil	Row	2	2	2	
	Max. Working pressure	MPa	1.6	1.6	1.6
Panel	Diameter	mm	Ø7	Ø7	
	Net dimensions (WxHxD)	mm	950x45x950	950x45x950	950x45x950
	Packing size (WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035
	Net weight	kg	6	6	6
	Gross weight	kg	9	9	9
	Body	Net dimensions (WxHxD)	mm	840x230x840	840x230x840
Pipe connections	Packing size (WxHxD)	mm	900x260x900	900x260x900	900x330x900
	Net weight	kg	23	23	27
	Gross weight	kg	28	28	33
	Water inlet/outlet pipe	inch	RC3/4	RC3/4	RC3/4
Drain pipe	mm	ODØ32	ODØ32	ODØ32	

Model		MKA-V950R	MKA-V1200R	MKA-V1500R	
Power supply	V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	
Air flow (H/M/L)	m³/h	1530/1224/1101	1581/1371/1236	1871/1415/1198	
	CFM	900/720/647	930/806/727	1100/832/704	
Cooling ¹	Capacity (H/M/L)	kW	7.84/6.84/6.35	7.87/7.12/6.67	11.19/8.82/7.48
	Water flow rate(H/M/L)	m³/h	1.43/1.24/1.13	1.44/1.28/1.22	1.96/1.51/1.28
	Water pressure drop(H/M/L)	kPa	22/17/14.1	22.3/18.1/16.3	36.6/22.7/16.4
	Power input(H/M/L)	W	75/42/34	85/59/45	126/58/39
	Capacity (H/M/L)	kW	8.49/8/7.35	9.16/8.54/7.9	10.07/10.08/8.68
	Water flow rate(H/M/L)	m³/h	1.71/1.45/1.33	1.73/1.57/1.46	2.35/1.86/1.59
Heating ²	Capacity (H/M/L)	kW	10.86/9.24/8.49	10.92/9.84/9.16	14.92/11.73/10.07
	Water flow rate(H/M/L)	m³/h	1.43/1.24/1.13	1.44/1.28/1.22	1.96/1.53/1.28
	Water pressure drop(H/M/L)	kPa	19.9/15.2/12.6	20/16.2/14.7	34.3/21.3/15
	Power input(H/M/L)	W	76/42/33	85/58/45	127/58/39
	Capacity (H/M/L)	kW	10.86/9.24/8.49	10.92/9.84/9.16	14.92/11.73/10.07
	Water flow rate(H/M/L)	m³/h	1.43/1.24/1.13	1.44/1.28/1.22	1.96/1.53/1.28
Sound pressure level (H/M/L)	dB(A)	46/42/39	48/44/41	49/43/39	
	Type	DC Motor	DC Motor	DC Motor	
Fan motor	Quantity	1	1	1	
Fan	Type	Centrifugal, forward-curved Blades			
	Quantity	1	1	1	
Coil	Row	2	2	3	
	Max. Working pressure	MPa	1.6	1.6	1.6
Panel	Diameter	mm	Ø7	Ø7	
	Net dimensions (WxHxD)	mm	950x45x950	950x45x950	950x45x950
	Packing size (WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035
	Net weight	kg	6	6	6
	Gross weight	kg	9	9	9
	Body	Net dimensions (WxHxD)	mm	840x300x840	840x300x840
Pipe connections	Packing size (WxHxD)	mm	900x330x900	900x330x900	900x330x900
	Net weight	kg	27	27	29.5
	Gross weight	kg	33	33	34.5
	Water inlet/outlet pipe	inch	RC3/4	RC3/4	RC3/4
Drain pipe	mm	ODØ32	ODØ32	ODØ32	

Based on Eurovent conditions:

H:High fan speed; M: Medium fan speed; L: Low fan speed.

1.Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/19°C WB, entering/leaving water temperature 7°C /12°C, high fan speed.

2.Heating mode (1) : (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C, high fan speed.

3.Heating mode (2) : (2-pipe coil): entering air temperature 20°C DB, enter water teperature/water flow 50 C,*(same water flow as in standard rating condition in cooling)

4-Pipe 4-Way Cassette



Model		MKA-V600F	MKA-V750F	MKA-V850F
Power supply		V/Ph/Hz	220-240/1/50	220-240/1/50
Air flow (H/M/L)		m ³ /h	1287/1084/851	1389/1149/929
		CFM	757/637/500	817/675/546
		kW	5.36/4.81/4	5.62/5.426
Cooling ¹	Capacity (H/M/L)	m ³ /h	0.99/0.87/0.72	1.04/0.9/0.77
	Water flow rate(H/M/L)	kPa	14.8/11.5/8.1	15.9/12.4/9
	Water pressure drop(H/M/L)	W	50/33/19	60/38/23
	Power input(H/M/L)	kW	7.38/6.06/5.09	7.66/6.35/5.44
Heating ²	Capacity (H/M/L)	m ³ /h	0.61/0.55/0.47	0.65/0.58/0.50
	Water flow rate(H/M/L)	kPa	25.3/20.5/14.5	32.25/7/19.1
	Water pressure drop(H/M/L)	W	51/33/19	61/38/23
	Power input(H/M/L)	kW	7.66/6.88/5.83	8.15/7.19/6.17
Heating ³	Capacity (H/M/L)	m ³ /h	0.69/0.62/0.54	0.73/0.66/0.56
	Water flow rate(H/M/L)	kPa	37.2/26.1/19.3	39.5/32.5/23.8
	Water pressure drop(H/M/L)	W	50/33/19	62/39/23
	Power input(H/M/L)	kW	42/37/31	44/39/33
Sound pressure level (H/M/L)	dB(A)	42/37/31	44/39/33	45/39/36
Fan motor	Type	DC Motor		
	Quantity	1		
Fan	Type	Centrifugal, forward-curved Blades		
	Quantity	1		
Coil	Row	2		
	Max. working pressure	MPa	1.6	
Panel	Net dimensions (WxHxD)	mm	950x45x950	950x45x950
	Packing size (WxHxD)	mm	1035x90x1035	1035x90x1035
Body	Net weight	kg	6	6
	Gross weight	kg	9	9
Pipe connections	Water inlet/outlet pipe	inch	Cold water: RC3/4; Hot water: RC1/2	
	Drain pipe	mm	ODØ82	ODØ82

Model		MKA-V950F	MKA-V1200F	MKA-V1500F
Power supply		V/Ph/Hz	220-240/1/50	220-240/1/50
Air flow (H/M/L)		m ³ /h	1525/1212/1088	1785/1545/1397
		CFM	897/712/640	1050/908/821
		kW	5.82/5.07/4.75	8.75/7.97/7.4
Cooling ¹	Capacity (H/M/L)	m ³ /h	1.04/0.9/0.83	1.57/1.43/1.31
	Water flow rate(H/M/L)	kPa	16.4/12.6/10.9	33.9/30/24
	Water pressure drop(H/M/L)	W	77/42/32	107/71/54
	Power input(H/M/L)	kW	8.52/6.36/5.93	11.7/9.88/9.27
Heating ²	Capacity (H/M/L)	m ³ /h	0.68/0.59/0.55	0.96/0.89/0.84
	Water flow rate(H/M/L)	kPa	34/26.6/23.5	42.4/36.6/32.6
	Water pressure drop(H/M/L)	W	76/42/32	107/72/55
	Power input(H/M/L)	kW	8.37/7.24/6.76	12.19/11.21/10.52
Heating ³	Capacity (H/M/L)	m ³ /h	0.78/0.67/0.63	1.10/1.00/0.95
	Water flow rate(H/M/L)	kPa	43.8/33.5/29.3	52.1/44.9/40.6
	Water pressure drop(H/M/L)	W	76/41/32	107/72/55
	Power input(H/M/L)	dB(A)	46/41/38	48/44/42
Sound pressure level (H/M/L)	dB(A)	46/41/38	48/44/42	49/43/38
Fan motor	Type	DC Motor		
	Quantity	1		
Fan	Type	Centrifugal, forward-curved Blades		
	Quantity	1		
Coil	Row	2		
	Max. working pressure	MPa	1.6	
Panel	Net dimensions (WxHxD)	mm	950x45x950	950x45x950
	Packing size (WxHxD)	mm	1035x90x1035	1035x90x1035
Body	Net weight	kg	6	6
	Gross weight	kg	9	9
Pipe connections	Water inlet/outlet pipe	inch	Cold water: RC3/4; Hot water: RC1/2	
	Drain pipe	mm	ODØ82	ODØ82

2-Pipe Compact 4-Way Cassette



Model		MKD-V300	MKD-V400	MKD-V500
Power supply		V/Ph/Hz	220-240/1/50	220-240/1/50
Air flow (H/M/L)		m ³ /h	535/429/322	719/561/448
		CFM	314/252/189	422/330/263
		kW	2.98/2.53/2	3.96/3.26/2.76
Cooling ¹	Capacity (H/M/L)	m ³ /h	0.53/0.45/0.35	0.7/0.58/0.51
	Water flow rate(H/M/L)	kPa	10/7/5	11.48/8.2/6.54
	Water pressure drop(H/M/L)	W	15/9/5	28/15/9
	Power input(H/M/L)	kW	2.61/2.89/2.24	4.63/3.79/3.1
Heating ²	Capacity (H/M/L)	m ³ /h	0.64/0.54/0.42	0.83/0.67/0.56
	Water flow rate(H/M/L)	kPa	12.1/8.5/5.3	9.2/8.6/6
	Water pressure drop(H/M/L)	W	15/9/5	28/16/10
	Power input(H/M/L)	kW	4.01/3.35/2.61	5.4/4.34/3.57
Heating ³	Capacity (H/M/L)	m ³ /h	0.53/0.45/0.35	0.7/0.58/0.51
	Water flow rate(H/M/L)	kPa	8.2/6/3.8	12.68/6.4/4.92
	Water pressure drop(H/M/L)	W	14/9/5	28/16/10
	Power input(H/M/L)	dB(A)	39/33/27	42/36/30
Sound pressure level (H/M/L)	dB(A)	39/33/27	42/36/30	43/38/32
Fan motor	Type	DC Motor		
	Quantity	1		
Fan	Type	Centrifugal, forward-curved Blades		
	Quantity	1		
Coil	Row	2		
	Max. working pressure	MPa	1.6	
Panel	Net dimensions (WxHxD)	mm	647x50x647	647x50x647
	Packing size (WxHxD)	mm	715x123x715	715x123x715
Body	Net weight	kg	2.5	2.5
	Gross weight	kg	4.5	4.5
Pipe connections	Water inlet/outlet pipe	inch	Cold water: G3/4; Hot water: G1/2	
	Drain pipe	mm	ODØ25	ODØ25

4-Pipe Compact 4-Way Cassette

Model		MKD-V300F	MKD-V400F	MKD-V500F
Power supply		V/Ph/Hz	220-240/1/50	220-240/1/50
Air flow (H/M/L)		m ³ /h	536/429/321	727/569/451
		CFM	315/252/188	427/334/265
		kW	2.42/2.08/1.65	3.08/2.64/2.28
Cooling ¹	Capacity (H/M/L)	m ³ /h	0.42/0.36/0.29	0.56/0.48/0.41
	Water flow rate(H/M/L)	kPa	17.4/13.5/9.3	13.15/9/4.7
	Water pressure drop(H/M/L)	W	14/9/5	37/24/19
	Power input(H/M/L)	kW	4.24/2.86/2.25	5.52/3.52/2.98
Heating ²	Capacity (H/M/L)	m ³ /h	0.32/0.27/0.21	0.36/0.31/0.27
	Water flow rate(H/M/L)	kPa	23.5/17.1/11.3	24.14/17.9/13.1
	Water pressure drop(H/M/L)	W	15/9/5	28/16/10
	Power input(H/M/L)	kW	3.85/3.25/2.55	4.78/4.03/3.4
Heating ³	Capacity (H/M/L)	m ³ /h	0.36/0.30/0.24	0.42/0.36/0.31
	Water flow rate(H/M/L)	kPa	29.8/21.7/14.3	30.36/22.17/16.68
	Water pressure drop(H/M/L)	W	15/9/5	29/16/10
	Power input(H/M/L)	dB(A)	39/33/27	42/35/30
Sound pressure level (H/M/L)	dB(A)	39/33/27	42/35/30	44/39/31
Fan motor	Type	DC Motor		
	Quantity	1		
Fan	Type	Centrifugal, forward-curved Blades		
	Quantity	1		
Coil	Row	2		
	Max. working pressure	MPa	1.6	
Panel	Net dimensions (WxHxD)	mm	647x50x647	647x50x647
	Packing size (WxHxD)	mm	715x123x715	715x123x715
Body	Net weight	kg	2.5	2.5
	Gross weight	kg	4.5	4.5
Pipe connections	Water inlet/outlet pipe	inch	Cold water: G3/4; Hot water: G1/2	
	Drain pipe	mm	ODØ25	ODØ25

Based on Eurovent conditions:

H:High fan speed; M: Medium fan speed; L: Low fan speed.

1.Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/19°C WB, entering/leaving water temperature 7°C/12°C, high fan speed.

2.Heating mode (1) : (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C, high fan speed.

(4-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 65/55°C, high fan speed.

3.Heating mode (2) : (2-pipe coil): entering air temperature 20°C DB, enter water temperature/water flow 50 C /m³ (Same water flow as in standard rating condition in cooling).

(4-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 70/60°C, high fan speed.

Duct Series

2-Pipe Duct



Various Selections >>

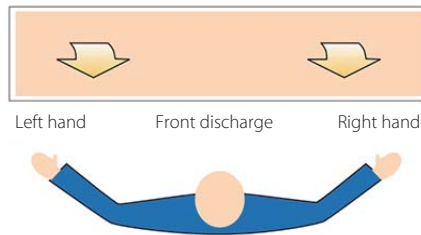
- ❖ Versions for normal/high temperature different systems.
- ❖ 2, 3 or 4 row coils for 2-pipe system, and 3 row coils for 4-pipe system.
- ❖ Large range of available static pressure.

High Efficiency and Low Sound Operation >>

- ❖ Due to the DC brushless fan motor, the unit operates in high efficiency and low sound level.

Flexible Installation >>

- ❖ Left and right hand piping connections are optional, flexible installation.

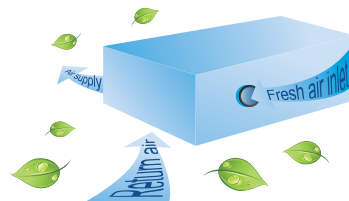


Standard Return Air Plenum and Filter >>

- ❖ Standard return air plenum and filter guarantees clean air supply and stable air flow rate.

Fresh Air Intake >>

- ❖ Fresh air can enter through the duct unit so you can enjoy even fresher air in the room.



2-Pipe 2-Row Duct



Model		MKT2-V200	MKT2-V300	MKT2-V400	MKT2-V500	
Power supply	V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)	m ³ /h	439/295/221	615/439/310	792/622/413	887/620/443	
	CFM	258/173/130	361/258/182	465/365/242	521/364/260	
Standard external static pressure	Pa	12Pa (default); 30/50Pa can be set through dial switch on PCB				
Cooling ¹	Capacity (H/M/L)	2.02/1.52/1.17	2.82/2.33/1.79	3.31/2.78/2.14	3.83/3.16/2.55	
	Water flow rate(H/M/L)	0.37/0.28/0.22	0.51/0.41/0.32	0.59/0.50/0.38	0.68/0.56/0.46	
	Water pressure drop(H/M/L)	6.3/3.62/2.17	14.16/10.5/7.33	19.37/14.79/9.57	23.7/17.1/11.9	
	Power input(H/M/L)	W	18/9/6	21/12/7	29/16/9	42/20/11
Heating ²	Capacity (H/M/L)	2.57/1.89/1.47	3.56/2.8/2.08	4.19/3.42/2.49	4.84/3.9/3.01	
	Water flow rate(H/M/L)	0.47/0.34/0.27	0.62/0.50/0.37	0.72/0.6/0.45	0.84/0.69/0.53	
	Water pressure drop(H/M/L)	5.64/4.5/2.9	10.54/10.3/6.3	16.20/16.6/10	19.90/20.89/12.86	
	Power input(H/M/L)	W	19/9/7	22/12/7	32/17/9	45/22/12
Heating ³	Capacity (H/M/L)	2.98/2.22/1.73	4.12/3.26/2.39	4.91/4.1/3.02	5.6/4.49/3.45	
	Water flow rate(H/M/L)	0.37/0.28/0.22	0.51/0.41/0.32	0.59/0.50/0.38	0.68/0.56/0.46	
	Water pressure drop(H/M/L)	7.91/3.5/2.3	15.39/7.41/4.83	23/12.09/7.81	29.04/14.16/9.71	
	Power input(H/M/L)	W	19/9/7	22/12/7	31/18/9	45/21/11
Sound pressure level	0Pa (H/M/L)	dB(A)	37.5/27.4/24.0	40.3/33.1/26.7	41.1/34.7/26.8	44.6/36.8/29.4
Fan motor	Type	DC Motor				
	Quantity	1				
Fan	Type	Centrifugal, forward-curved Blades				
	Quantity	1				
Coil	Row	2				
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Ø9.52	Ø9.52	Ø9.52	Ø9.52
		mm	741x241x522	841x241x522	941x241x522	941x241x522
Packing size (WxHxD)	mm	790x260x550	890x260x550	990x260x550	990x260x550	
Net weight	kg	16.5	18.5	20	20	
Gross weight	kg	19	21.4	23.2	23.2	
Water inlet/outlet pipe	inch	RC3/4	RC3/4	RC3/4	RC3/4	
Drain pipe	inch	R3/4	R3/4	R3/4	R3/4	

Model		MKT2-V600	MKT2-V800	MKT2-V1000	MKT2-V1200	
Power supply	V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)	m ³ /h	1081/821/586	1492/1071/797	1824/1332/906	2327/1669/1135	
	CFM	635/482/344	877/630/468	1072/783/532	1368/981/667	
Standard external static pressure	Pa	12Pa (default); 30/50Pa can be set through dial switch on PCB				
Cooling ¹	Capacity (H/M/L)	4.78/4.01/3.09	6.75/4.9/4.45	7.92/6.62/5.15	9.83/8.5/6.46	
	Water flow rate(H/M/L)	0.85/0.69/0.54	1.19/0.96/0.80	1.43/1.17/0.91	1.74/1.42/1.12	
	Water pressure drop(H/M/L)	14.2/9.8/6.1	15.1/10.89/7.82	23.2/16.44/10.94	50.33/30.4/21.71	
	Power input(H/M/L)	W	53/25/12	62/28/16	93/42/19	111/53/24
Heating ²	Capacity (H/M/L)	6.25/5.17/4.03	8.39/6.64/5.2	9.92/7.94/5.86	12.58/10.24/7.57	
	Water flow rate(H/M/L)	1.10/0.91/0.7	1.46/1.17/0.91	1.69/1.38/1.01	2.17/1.79/1.34	
	Water pressure drop(H/M/L)	12.36/14.2/8.9	13.26/13.1/8.28	19.72/18.87/11.07	38.30/41.81/26.5	
	Power input(H/M/L)	W	58/27/13	66/30/16	100/44/19	118/55/24
Heating ³	Capacity (H/M/L)	7.19/5.92/4.55	9.87/7.83/6.29	11.63/9.37/6.96	14.58/11.82/8.83	
	Water flow rate(H/M/L)	0.85/0.69/0.54	1.19/0.96/0.80	1.43/1.17/0.91	1.74/1.42/1.12	
	Water pressure drop(H/M/L)	19.88/8.56/5.4	19.36/9.03/6.4	26.68/13.96/9.1	60.7/26.5/17.8	
	Power input(H/M/L)	W	58/27/13	66/30/17	99/45/19	119/55/24
Sound pressure level	0Pa (H/M/L)	dB(A)	46.1/38.9/29.9	47.7/39.4/31.1	50.2/43.0/33.0	50.9/44.0/33.8
Fan motor	Type	DC Motor				
	Quantity	2				
Fan	Type	Centrifugal, forward-curved Blades				
	Quantity	2				
Coil	Row	2				
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Ø9.52	Ø9.52	Ø9.52	Ø9.52
		mm	1161x241x522	1461x241x522	1566x241x522	1856x241x522
Packing size (WxHxD)	mm	1210x260x550	1510x260x550	1615x260x550	1905x260x550	
Net weight	kg	22.2	31.4	32.5	37.5	
Gross weight	kg	26	35.8	37.2	42.8	
Water inlet/outlet pipe	inch	RC3/4	RC3/4	RC3/4	RC3/4	
Drain pipe	inch	R3/4	R3/4	R3/4	R3/4	

Based on Eurovent conditions:

H:High fan speed; M: Medium fan speed; L: Low fan speed.

1.Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/19°C WB, entering/leaving water temperature 7°C /12°C, high fan speed.

2.Heating mode (1) : (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C, high fan speed.

3.Heating mode (2) : (2-pipe coil): entering air temperature 20°C DB, enter water teperature/water flow 50 C°/(same water flow as in standard rating condition in cooling)

Wall Mounted Series

S Type



Stylish Panel >>

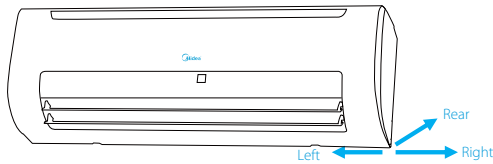
- ❖ Stylish front panel blends easily within any interior décor, ideal for use in shops, restaurants or offices with no or narrow false ceilings.

High Efficiency and Low Sound Operation >>

- ❖ Due to the DC brushless fan motor, the unit operates in high efficiency and low sound level.

Convenient Installation >>

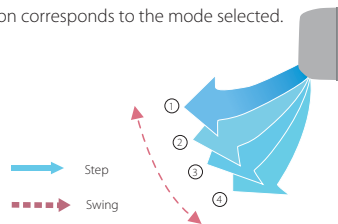
- ❖ Multi-directional outlet pipe feature: left/right/rear, to meet the needs of different rooms.



Built-In 3-Way Electromagnetic Valve >>

Auto Swing Louver >>

- ❖ The Auto Swing Louver function ensures that the air direction corresponds to the mode selected.



Easy Maintenance >>

- ❖ Removable front panel making maintenance convenient.



Wall Mounted (S Type)



Model		MKG-V250B	MKG-V300B	MKG-V400B	MKG-V500B	MKG-V600B	
Power supply	V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)	m ³ /h	492/454/400	585/485/413	825/689/590	862/741/634	979/849/717	
	CFM	289/267/235	344/285/242	485/405/347	507/435/372	575/499/421	
Cooling ¹	Capacity (H/M/L)	kW	2.7/2.59/2.39	2.91/2.54/2.19	3.81/3.3/2.88	4.47/3.98/3.48	4.87/4.26/3.79
	Water flow rate(H/M/L)	m ³ /h	0.48/0.46/0.42	0.51/0.45/0.38	0.67/0.57/0.51	0.77/0.68/0.61	0.85/0.72/0.65
	Water pressure drop(H/M/L)	kPa	31.61/28.63/25.36	37.2/29.73/23.36	56.75/41.23/33.02	41.17/33.54/27.05	50.68/39.47/33.66
	Power input(H/M/L)	W	13/11/10	15/11/9	34/22/15	26/18/13	38/26/18
Heating ²	Capacity (H/M/L)	kW	2.94/2.8/2.58	3.23/2.77/2.42	4.3/3.65/3.09	4.84/4.23/3.62	5.26/4.68/3.96
	Water flow rate(H/M/L)	m ³ /h	0.51/0.49/0.46	0.56/0.49/0.42	0.73/0.64/0.56	0.84/0.73/0.64	0.89/0.80/0.68
	Water pressure drop(H/M/L)	kPa	32.66/34.89/30.24	34.12/31.53/25.1	51.86/47.53/35.69	36.82/33.83/26.26	47.12/42.75/32.95
	Power input(H/M/L)	W	11/11/9	14/10/8	31/20/14	22/16/12	33/23/16
Heating ³	Capacity (H/M/L)	kW	3.29/3.03/2.63	3.76/3.22/2.77	5.08/4.33/3.77	5.68/4.94/4.24	6.31/5.57/4.77
	Water flow rate(H/M/L)	m ³ /h	0.48/0.46/0.42	0.51/0.45/0.38	0.67/0.57/0.51	0.77/0.68/0.61	0.85/0.72/0.65
	Water pressure drop(H/M/L)	kPa	37.49/30.25/26.53	40.64/27.03/20.98	61.94/37.88/30.34	43.74/29.69/23.98	51.65/36.3/30.3
	Power input(H/M/L)	W	12/10/8	14/10/8	31/20/14	23/16/12	33/23/16
Sound pressure level (H/M/L)	dB(A)	32/30/27	32/27/23	45/39/35	38/34/30	44/40/35	
Fan motor	Type	DC Motor					
	Quantity	1					
Fan	Type	Tangential fan		Tangential fan	Tangential fan	Tangential fan	
	Quantity	1		1	1	1	
Coil	Row	2		2	2	2	
	Max. working pressure	MPa	1.6				
	Diameter	mm	Ø7				
Net dimensions (WxHxD)	mm	915x290x230	915x290x230	915x290x230	1072x315x230	1072x315x230	
Packing size (WxHxD)	mm	1020x390x315	1020x390x315	1020x390x315	1180x415x315	1180x415x315	
Net weight	kg	12.7	12.7	12.7	15.1	14.9	
Gross weight	kg	17.3	17.6	16.3	19	18.6	
Water inlet/outlet pipe	inch	G3/4					
Drain pipe	mm	ODØ20					

Based on Eurovent conditions:

H:High fan speed; M: Medium fan speed; L: Low fan speed.

1: Cooling mode (2 and 4-pipe coil); entering air temperature 27°C DB/19°C WB, entering/leaving water temperature 7°C /12°C, high fan speed.

2: Heating mode (1) : (2-pipe coil); entering air temperature 20°C DB, entering/leaving water temperature 45/40°C, high fan speed.

3: Heating mode (2) : (2-pipe coil); entering air temperature 20°C DB, enter water teperature/water flow 50 C/°(same water flow as in standard rating condition in cooling)

Ceiling & Floor Series

**Concealed Type
H3 Series**



**Exposed Type
(air return from side)
H4 Series**



**Exposed Type
(air return from bottom)
H5 Series**



High Efficiency and Low Sound Operation >>

Due to the DC brushless fan motor, the unit operates in high efficiency and low sound level.

Flexible Installation >>

- Cabinet and concealed versions meet various installation requirements.
- Horizontal or vertical installation.



Floor installation



Ceiling installation

Flexible Air Return Type >>

Air return can be from side or bottom.



Ceiling & Floor

Model		MKH3-V150 MKH4-V150 MKH5-V150	MKH3-V250 MKH4-V250 MKH5-V250	MKH3-V300 MKH4-V300 MKH5-V300	MKH3-V400 MKH4-V400 MKH5-V400	
Power supply	V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)	m ³ /h	267/201/153	369/272/196	560/407/319	604/448/343	
	CFM	157/118/90	217/160/115	329/239/187	355/263/201	
External static pressure	Pa	H3 models: 12; H4/H5 models: 0				
	Capacity (H/M/L)	kW	1.63/1.23/0.96	2.07/1.52/1.07	2.97/2.39/1.82	3.25/2.63/2.12
Cooling ¹	Water flow rate(H/M/L)	m ³ /h	0.28/0.22/0.18	0.36/0.27/0.20	0.52/0.42/0.33	0.59/0.49/0.38
	Water pressure drop(H/M/L)	kPa	7.39/4.8/3.2	11.13/6.7/3.8	19.17/12.79/8.15	23.27/16.38/11.14
	Power input(H/M/L)	W	12/8/6	17/10/7	26/14/9	30/16/10
	Capacity (H/M/L)	kW	1.71/1.29/0.98	2.39/1.76/1.3	3.32/2.54/1.87	3.62/2.82/2.17
Heating ²	Water flow rate(H/M/L)	m ³ /h	0.30/0.23/0.18	0.42/0.32/0.24	0.57/0.46/0.35	0.64/0.51/0.39
	Water pressure drop(H/M/L)	kPa	5.33/3.5/2.03	8.9/7.29/4.3	15.6/12.31/7.6	19.57/15.1/9.8
	Power input(H/M/L)	W	13/9/7	18/11/7	26/14/10	30/16/10
	Capacity (H/M/L)	kW	2.02/1.52/1.22	2.78/2.07/1.42	3.92/3.08/2.24	4.37/3.34/2.63
Heating ³	Water flow rate(H/M/L)	m ³ /h	0.28/0.22/0.18	0.36/0.27/0.20	0.52/0.42/0.33	0.59/0.49/0.38
	Water pressure drop(H/M/L)	kPa	5.91/3.29/1.88	11.99/5.22/3	19.42/10.57/6.73	22.9/13.86/9.1
	Power input(H/M/L)	W	13/9/7	18/11/7	26/14/10	30/15/9
	Sound pressure level	H/M/L	Type	35/28/21	39/31/22	44/37/31
Fan motor	Type	DC Motor				
	Quantity	1				
Fan	Type	Centrifugal, forward-curved Blades				
	Quantity	1				
Coil	Row	1				
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Ø9.52	Ø9.52	Ø9.52	Ø9.52
Body (H3 series)	Net dimensions (WxHxD)	mm	550x545x212	550x545x212	750x545x212	750x545x212
	Packing size (WxHxD)	mm	639x639x305	639x639x305	839x639x305	839x639x305
	Net weight	kg	17	17	20	20
	Gross weight	kg	19	19	23.5	23.5
Body (H4/H5 series)	Net dimensions (WxHxD)	mm	800x592x220	800x592x220	1000x592x220	1000x592x220
	Packing size (WxHxD)	mm	889x683x312	889x683x312	1089x683x312	1089x683x312
	Net weight	kg	24.4	24.4	28.2	28.2
	Gross weight	kg	28.4	28.4	33.2	33.2
Water inlet/outlet pipe	inch	G3/4	G3/4	G3/4	G3/4	
Drain pipe	mm	ODØ16	ODØ16	ODØ16	ODØ16	

Model		MKH3-V450 MKH4-V450 MKH5-V450	MKH3-V500 MKH4-V500 MKH5-V500	MKH3-V600 MKH4-V600 MKH5-V600	MKH3-V800 MKH4-V800 MKH5-V800	MKH3-V900 MKH4-V900 MKH5-V900	
Power supply	V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)	m ³ /h	678/492/383	748/555/398	1017/720/588	1245/906/675	1509/1054/806	
	CFM	398/289/225	440/326/234	598/423/345	732/532/397	887/620/474	
External static pressure	Pa	H3 models: 12; H4/H5 models: 0					
	Capacity (H/M/L)	kW	4.57/3.35/2.62	4.82/3.73/2.8	5.43/4.32/3.58	6.25/5.12/4.05	7.17/5.67/4.72
Cooling ¹	Water flow rate(H/M/L)	m ³ /h	0.81/0.60/0.47	0.85/0.65/0.51	0.93/0.78/0.63	1.12/0.89/0.72	1.29/0.99/0.84
	Water pressure drop(H/M/L)	kPa	25.52/15.03/9.95	27.32/17.1/10.74	18.54/13.01/8.71	26.51/17.08/11.49	30.94/18.96/14.04
	Power input(H/M/L)	W	25/13/9	31/16/10	37/18/12	67/30/15	103/38/21
	Capacity (H/M/L)	kW	4.66/3.38/2.57	5.21/3.92/2.88	6.38/4.81/3.93	7.48/5.84/4.6	8.45/6.32/5.05
Heating ²	Water flow rate(H/M/L)	m ³ /h	0.83/0.60/0.47	0.92/0.70/0.52	1.10/0.87/0.71	1.30/1.02/0.83	1.47/1.13/0.90
	Water pressure drop(H/M/L)	kPa	21.58/12.5/7.91	23.5/16.92/9.5	17.62/15.39/10.7	24.20/15.37/13.54	27.39/21.6/14.12
	Power input(H/M/L)	W	25/13/9	31/16/10	38/18/12	69/30/16	106/38/21
	Capacity (H/M/L)	kW	5.52/3.98/3.03	6.17/4.65/3.44	7.44/5.69/4.71	8.79/6.89/5.45	9.96/7.48/5.94
Heating ³	Water flow rate(H/M/L)	m ³ /h	0.81/0.60/0.47	0.85/0.65/0.51	0.93/0.78/0.63	1.12/0.89/0.72	1.29/0.99/0.84
	Water pressure drop(H/M/L)	kPa	23.02/12.41/7.7	27.46/14.4/9	24.16/12.51/8.5	32.37/15.6/10.56	34.9/16.71/12.38
	Power input(H/M/L)	W	25/13/9	31/16/10	38/18/11	68/30/16	106/38/20
	Sound pressure level	H/M/L	Type	40/32/25	42/35/27	42/33/28	48/39/31
Fan motor	Type	DC Motor					
	Quantity	1					
Fan	Type	Centrifugal, forward-curved Blades					
	Quantity	1					
Coil	Row	2					
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	
	Diameter	mm	Ø9.52	Ø9.52	Ø9.52	Ø9.52	
Body (H3 series)	Net dimensions (WxHxD)	mm	950x545x212	950x545x212	1250x545x212	1250x545x212	
	Packing size (WxHxD)	mm	1039x639x305	1039x639x305	1339x639x305	1339x639x305	
	Net weight	kg	25	25	32	32	
	Gross weight	kg	29	29	36	36	
Body (H4/H5 series)	Net dimensions (WxHxD)	mm	1200x592x220	1200x592x220	1500x592x220	1500x592x220	
	Packing size (WxHxD)	mm	1289x683x312	1289x683x312	1589x683x312	1589x683x312	
	Net weight	kg	34.2	34.2	40	40	
	Gross weight	kg	39.7	39.7	45.5	45.5	
Water inlet/outlet pipe	inch	G3/4	G3/4	G3/4	G3/4	G3/4	
Drain pipe	mm	ODØ16	ODØ16	ODØ16	ODØ16	ODØ16	

Based on Eurovent conditions:

H:High fan speed; M:Medium fan speed; L: Low fan speed.

1:Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/19°C WB, entering/leaving water temperature 7°C/12°C, high fan speed.

2:Heating mode (1) : (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C, high fan speed.

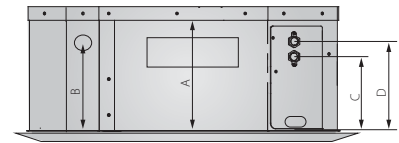
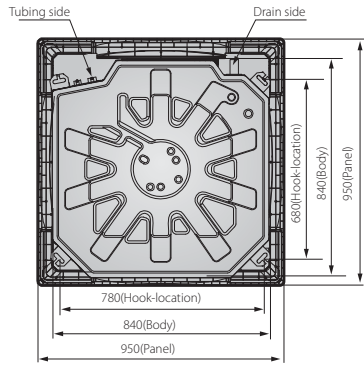
3:Heating mode (2) : (2-pipe coil): entering air temperature 20°C DB, enter water teperature/water flow 50 C / (same water flow as in standard rating condition in cooling)

Dimensions

4-way cassette >>

2-pipe 4-way cassette

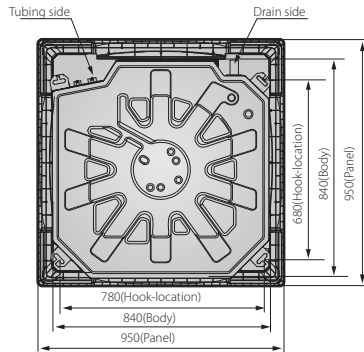
Dimensions (unit:mm)



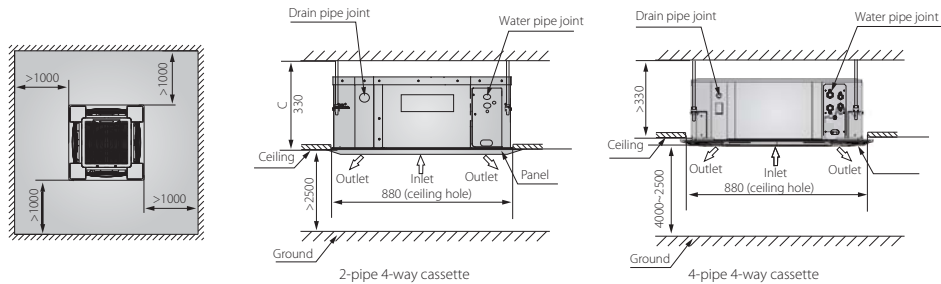
Model	Size	A	B	C	D
MKA-V600R		230	170	135	185
MKA-V750R					
MKA-V950R		300	190	145	195
MKA-V1200R					
MAK-V1500R					

4-Pipe 4-way cassette

Dimensions (unit:mm)



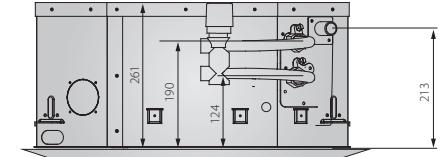
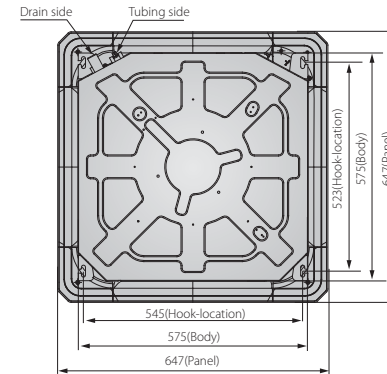
Service Spaces (unit:mm)



Compact 4-way cassette >>

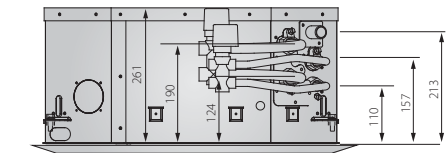
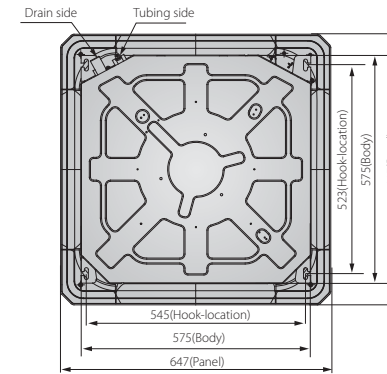
2-pipe compact 4-way cassette

Dimensions (unit: mm)

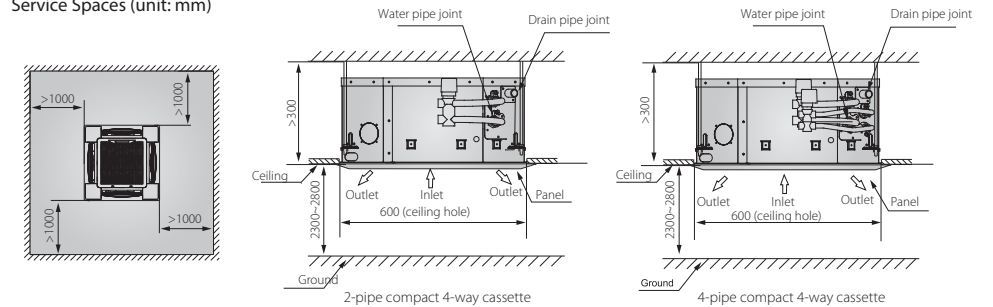


4-pipe compact 4-way cassette

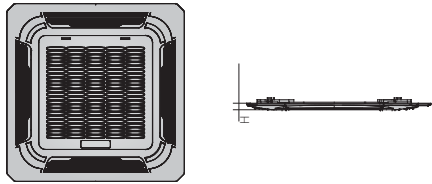
Dimensions (unit: mm)



Service Spaces (unit: mm)



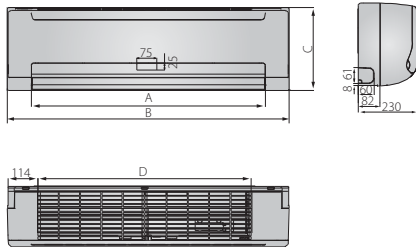
Height of the front panel



Type	H (mm)
4-way cassette	45
Compact 4-way cassette	50

Wall mounted - S type >>

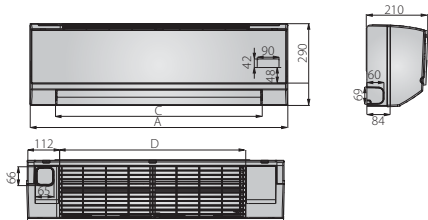
Dimensions (unit: mm)



Model	MKG-V250-B MKG-V300-B MKG-V400-B	MKG-V500-B MKG-V600-B
A	732	892
B	915	1072
C	290	315
D	663	813

Wall mounted - C type >>

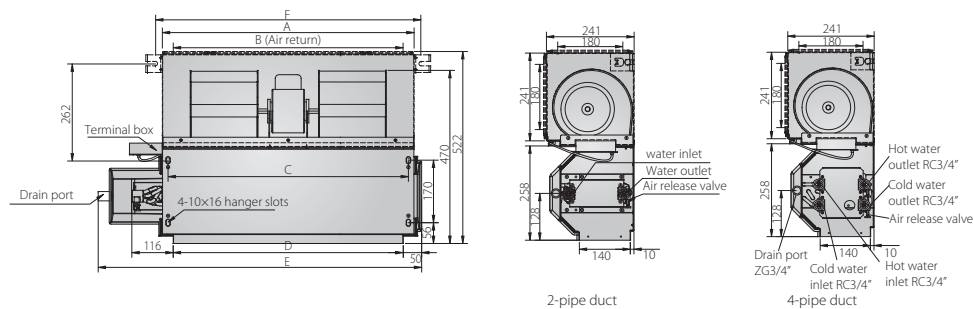
Dimensions (unit: mm)



Model	MKG-V250 MKG-V300 MKG-V400	MKG-V500 MKG-V600
A	915	1070
B	290	315
C	725	885
D	670	815

Duct >>

Dimensions (unit: mm)



2-pipe duct

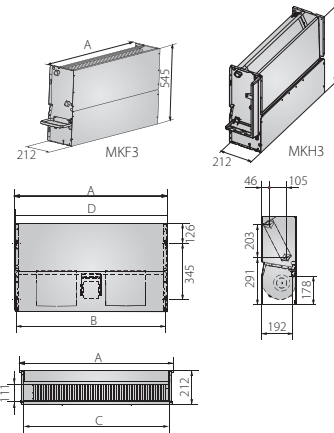
4-pipe duct

(continued: duct units dimensions)

Size	A	B	C	D	E	F
200CFM	545	485	513	485	741	583
300CFM	645	585	613	585	841	683
400CFM	745	685	713	685	941	783
500CFM	745	685	713	685	941	783
600CFM	965	905	933	905	1161	1003
800CFM	1265	1205	1233	1205	1461	1303
1000CFM	1370	1310	1338	1310	1566	1408
1200CFM	1660	1600	1628	1600	1856	1698

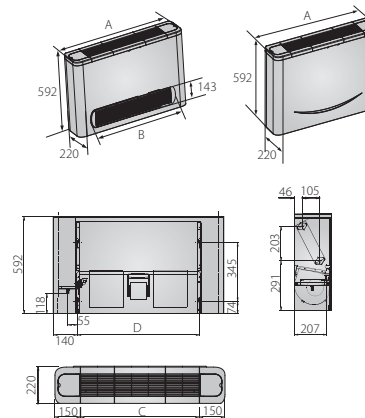
Ceiling & Floor >>

Dimensions (unit: mm)
Concealed type



Model	MKH3-V150/250	MKH3-V300/400	MKH3-V450/500	MKH3-V600-900
A(mm)	550	750	950	1250
B(mm)	526	726	926	1226
C(mm)	500	700	900	1200
D(mm)	532	732	932	1232

Exposed type



Model	MKH4-V150/250 MKH5-V150/250	MKH4-V300/400 MKH5-V300/400	MKH4-V450/500 MKH5-V450/500	MKH4-V600-900 MKH5-V600-900
A(mm)	800	1000	1200	1500
B(mm)	584	784	984	1284
C(mm)	500	700	900	1200
D(mm)	526	726	926	1226

Control Devices

Wireless remote controllers

Model	Appearance	Function Descriptions	Applicable FCUs
R05/BGE		<ul style="list-style-type: none"> LCD display screen Mode control Fan speeds control Time setting / Temp. setting / Swing setting 	4-way Cassette (standard) Compact 4-way cassette (standard) Wall mounted (standard)

Wired controllers

Model	Appearance	Function Descriptions	Applicable FCUs
KJRP-86A1-E		<ul style="list-style-type: none"> LCD display screen Mode control Fan speeds control Timer setting / Temp. setting 	Duct without electric heater (optional)
KJR-18B/E		<ul style="list-style-type: none"> Mechanical thermostat Mode control Fan speeds control Temp. setting 	Duct without electric heater (optional)
KJR-21B/D		<ul style="list-style-type: none"> LCD display screen Mode control / Fan speeds control Electric heater control Temp. setting 	Duct with electric heater (optional)
KJR-15B/E		<ul style="list-style-type: none"> LCD display screen Mode control Fan speeds control Temperature display in °F or °C 	Floor standing / Ceiling & floor (optional)
KJR-29B/E		<ul style="list-style-type: none"> LCD display screen Mode control Fan speeds control Temp. setting 	Cassette / Wall-mounted (optional)
KJR-12B/E		<ul style="list-style-type: none"> Swing function Mode control Fan speeds control Temp. setting 	Cassette / Wall-mounted (optional)

Centralized controllers

Model	Appearance	Function Descriptions	Applicable FCUs
CCM03		<ul style="list-style-type: none"> Large LCD display screen Max. of 64 FCUs can be controlled by a CCM03 Mode control / fan speed control Time setting / temp. setting / swing setting 	All FCUs 4-way cassette and compact 4-way cassette FCUs need customize PCB, none-PCB FCUs need adding PC board control kit)
CCM09		<ul style="list-style-type: none"> Weekly schedule function Basic functions are same as CCM03 	
CCM30		<ul style="list-style-type: none"> Touch-style keys Basic functions are same as CCM03 	

Accessories

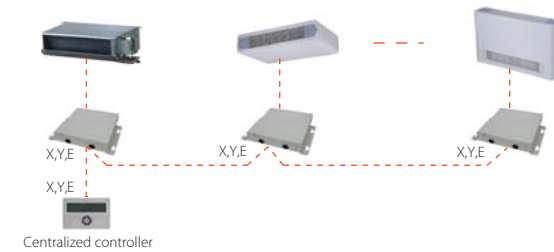
PC Board Control Kit for FCU >>

- Available for all non-PCB FCUs.
- Flexible installation, it can be attached to the unit, mounted on a wall or hung under a ceiling.
- External installation making maintenance more convenient.
- Functions: Three fan speeds control, Water pump control, Long-distance ON/OFF control, ALARM function, Electric heater control.
- Operating status can be displayed by wired controller lamp indicator.
- Centralized control function.
- BMS control function through Modbus protocol.

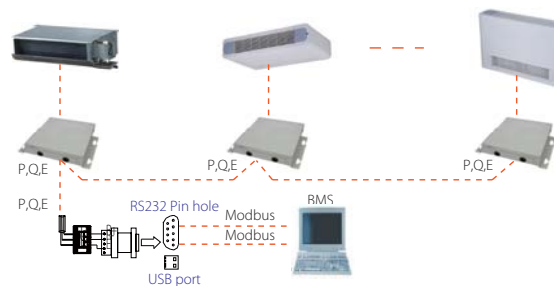


PC Board Control Kit

Centralized control



BMS control function through Modbus protocol



Specifications

Model			CE-FCUKZ-03	CE-FCUKZ-04
Applicable appliance			2-pipe FCUs	4-pipe FCUs
Power supply		V-Ph-Hz	220~240-1-50/60	
Operation range	Room temp.	°C	17-30	
	Inlet water temp.	°C	3-75	
Temp. controlling precision		°C	±1	
Net dimension	WxHxD	mm	296x66x212	
Packing size	WxHxD	mm	410x115x262	
Net weight		kg	1.4	
Gross weight		kg	2.5	

Valve Kit >>

- ❖ Working Voltage: AC230±10%, 50/60Hz(24V can be customized).
- ❖ Power Consumption: 4W
- ❖ Nominal Pressure: 1.6MPa.
- ❖ Applied Medium: Cold or hot water, 50% glycol water liquor.
- ❖ Medium Temperature: 2-15°C(DDSTF-01), -20-1°C(DDSTF-04/05).
- ❖ Environment Temperature: -5-50°C(DDSTF-01), 0-50°C(DDSTF-04/05).



DDSTF-01

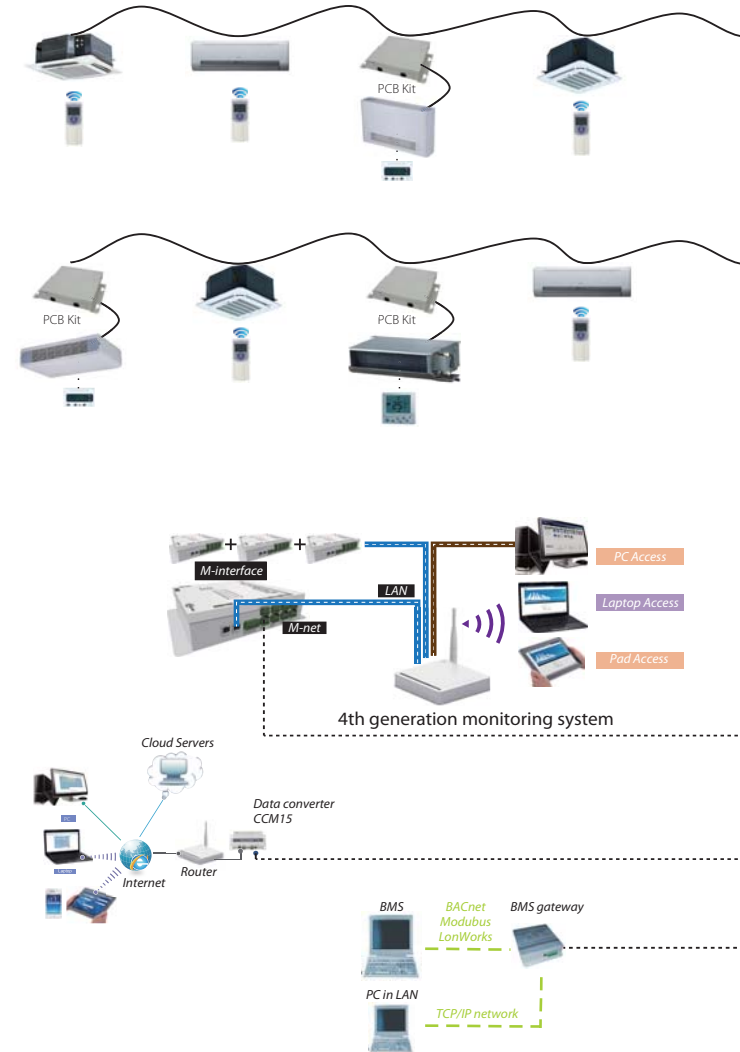


DDSTF-04
DDSTF-05

Model	DN(mm)	Inner Screw Thread	Applicable Appliance
DDSTF-01	20	3/4"	2-pipe cassette/duct/floor standing, 4-pipe duct
DDSTF-04	15	1/2"	4-pipe cassette (for hot water)
DDSTF-05	20	3/4"	2-pipe ceiling & floor, 4-pipe cassette (for cold water)

Note:
DDSTF-** is the model of valve. The valve kit includes valve, actuator and connecting pipe. For different model of units, the models of valve kit are different.

Application of Central Control & BMS Control

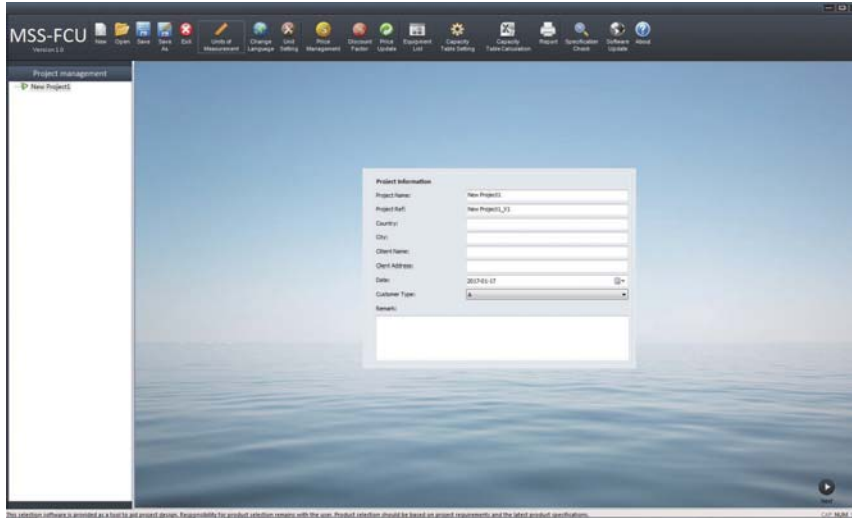


Note:

If cassette type units connect to centralized controller or BMS, PCB of the unit should be customized.

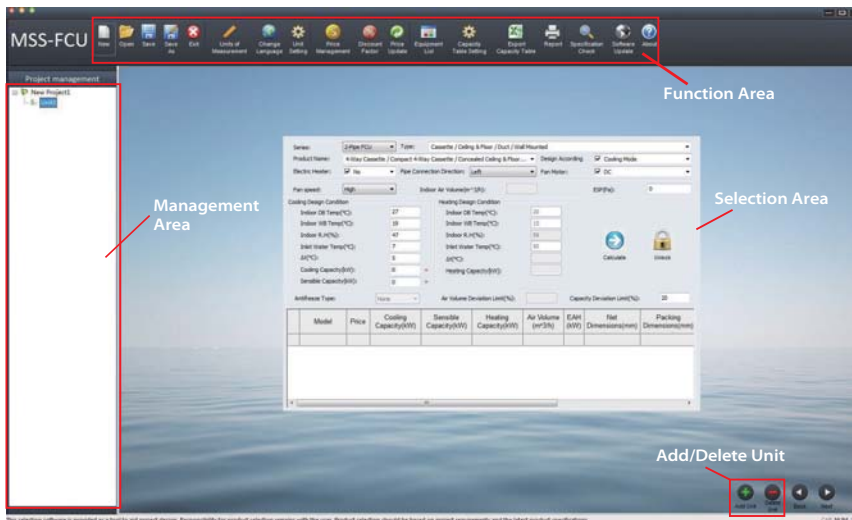
Selection Software

Features >>

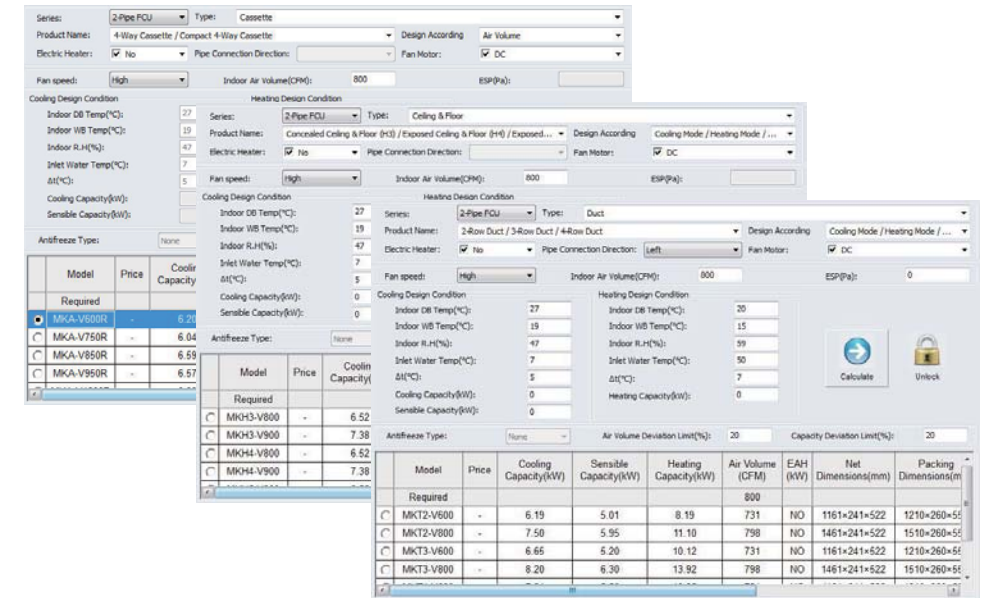


- Select by entering air and water conditions as well as fan speed.
- Easy to operate interface and visual display.
- Powerful project management function.

Main Interface >>



Selection Interface >>



Report Data Interface >>

