Midea®

Product news

Midea central air conditioner improved performance and operation

May 2018 | Ref. 002

Midea CAC
Aqua Tempo Super II Series
DC Inverter Air-cooled Chiller

We are pleased to announce that MC-SU90-RN1L DC Inverter Air-cooled Chiller is available now.

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 three models (MC-SU30-RN1L,MC-SU60-RN1L and MC-SU90-RN1L) all of which can operate in cooling mode with ambient temperatures of up to 43 ℃ and with outlet water temperature as low as 0 ℃. The water flow switch and wired controller are both built-in, making installation more convenient. A hydraulic module with water pump can be added as a customization option to meet special installation situation requirements.

➢ Product Lineup

Model	MC-SU30-RN1L	MC-SU60-RN1L	MC-SU90-RN1L
Appearance			
Power supply	380-415V/3Ph/50Hz		

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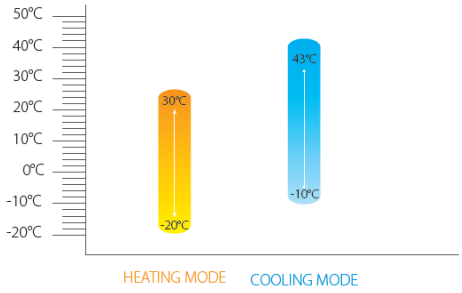
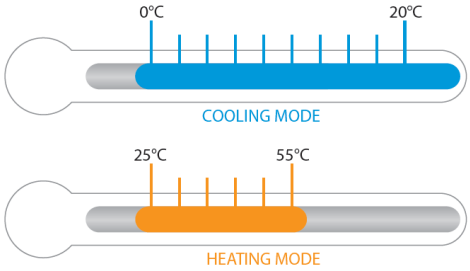
➢ Main features for MC-SU90RN1L

Wide Operating Range



Ambient temperature

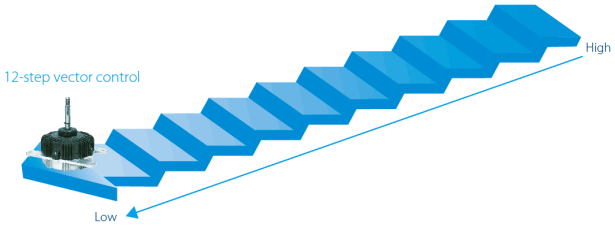
Stable operation even under extreme conditions: -20 ℃ to 43 ℃.



Outlet water temperature

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

All DC Fan Motors



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

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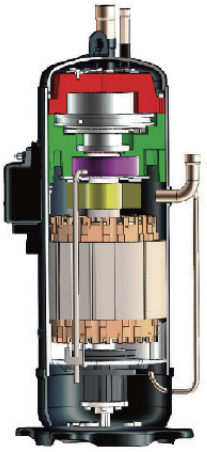
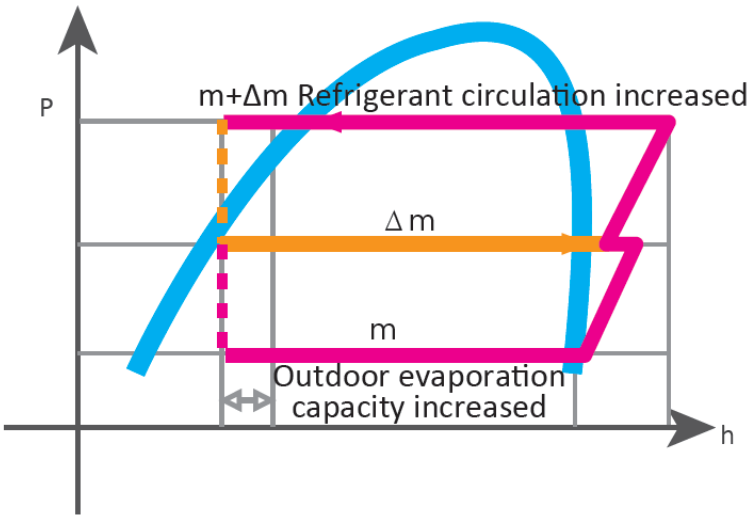
Enhanced Vapor Injection (EVI) Compressor



EVI compressor



Thanks to the vapor injection DC inverter compressor, the unit can run heating mode stably down to -20 ℃, and the heating capacity can be improved greatly.

Plate Heat Exchanger (PHE) Subcooling

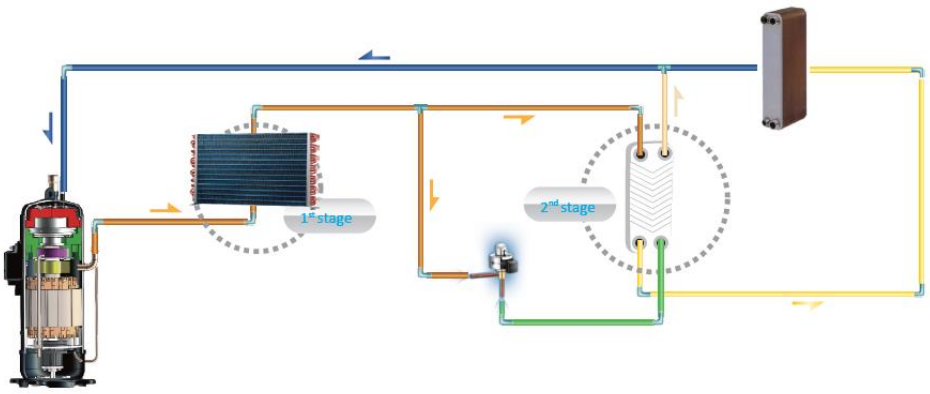


Plate Heat Exchanger as a secondary intercooler boosts up refrigerant subcooling and improves 10% energy efficiency.

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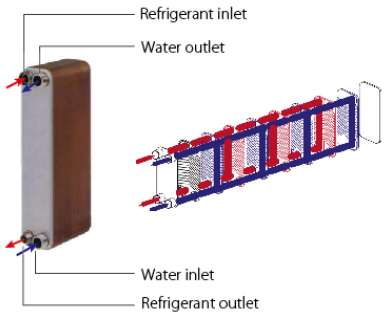
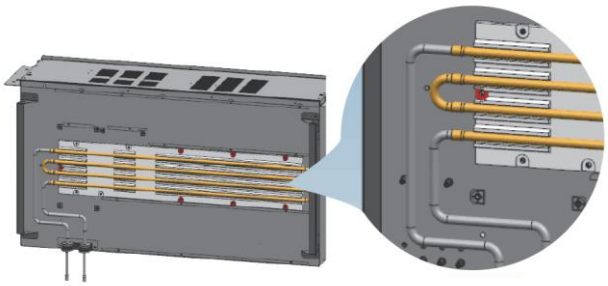
High Efficiency Plate Heat Exchanger



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

Refrigerant Cooling PCB



Uses refrigerant cooling technology to cool the electric control box. It decreases the average temperature of electrical control components by about 8 degrees, guaranteeing the stable and safe running of the control system.

High Performance Heat Exchanger Design

Efficient fan motor, well-designed air duct and uniform wind field make heat exchange of the whole system more thorough.

➢ Main Specifications

Model			MC-SU30-RN1L	MC-SU60-RN1L	MC-SU90-RN1L
Power supply	V/Ph/Hz		380-415/3/50		
Cooling[1]	Capacity	kW	27	55	83
	Power input	kW	10.8	22	37.2
	EER		2.5		2.23
	SEER		4.41	4.2	4.32
Heating[2]	Capacity	kW	31	61	90
	Power input	kW	10.5	20.3	32.3
	COP		2.95	3.0	3.28
	SCOP		4.01	3.85	3.99
Refrigerant	Type		R410A		
	Charged volume(kg)		10.5	17	27
Sound pressure level[3]	dB(A)		65.8	72.1	72.2
Net dimensions (W×H×D)	mm		1,870×1,175×1,000	2,220×1,325×1,055	3,220×1,095×1,513
Packed dimensions (W×H×D)	mm		1,910×1,225×1,035	2,250×1,370×1,090	3,275×1,130×1,540
Net/Gross weight	kg		300/310	480/490	710/739
Pipe connections	Water inlet/outlet	mm	DN40	DN50	DN50
Wired controller			KJRM-120H/BMWKO-E		KJRM-120H/BMWKO3-E
Ambient temperature range	Cooling	℃	-10 to 43		
	Heating	℃	-15 to 30		-20 to 30
Water outlet temperature range	Cooling	℃	0 to 20		
	Heating	℃	25 to 55		

Notes:

1. Cooling: Chilled water inlet/outlet Temp.12/7 ℃, outdoor ambient Temp. 35 ℃ DB.
2. Heating: Warm water inlet/outlet Temp. 40/45 ℃, outdoor ambient Temp. 7 ℃ DB/6 ℃ WB.
3. 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.
4. With water outlet temperatures lower than 5 ℃ antifreeze must be added.
5 .The above data is tested reference standard EN14511.

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

All technical information and manuals will be available on 30th June, 2018.