

MACON

BEST CHOICE FOR ENERGY SAVING

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BEST CHOICE FOR ENERGY SAVING

MACON

DC INVERTER WATER TO WATER HEAT PUMP

Max Water Temp 75°C

(Heating / Cooling / Domestic Hot Water)



GUANGDONG MACON NEW ENERGY TECHNOLOGY CO., LTD

CHARACTERISTICS



DC inverter technology



Domestic hot water



House heating



House cooling



Quality component



Save energy



Anti freezing



Wide heating capacity



Modular control



Quiet running

CORE TECHNOLOGIES



Multi-stage high efficient frequency control and precise throttle control.



Constant capacity output to achieve whole-process high efficiency.



Multiple noise reduction technology for quiet and comfortable experience.



Terminal equipment joint control to meet actual heating/cooling demands.

HIGH QUALITY COMPONENTS

HOUSING
High strength thickened powder coating galvanized metal, low sound level.

HEAT EXCHANGER
316SS plate heat exchanger or shell and tube heat exchanger for option.

PIPING SYSTEM
High strength red copper pipes with special design of eliminating stress and resonance.

DC INVERTER CONTROLLER
Self-design DC inverter control drive core to realize accurate temperature and load control.



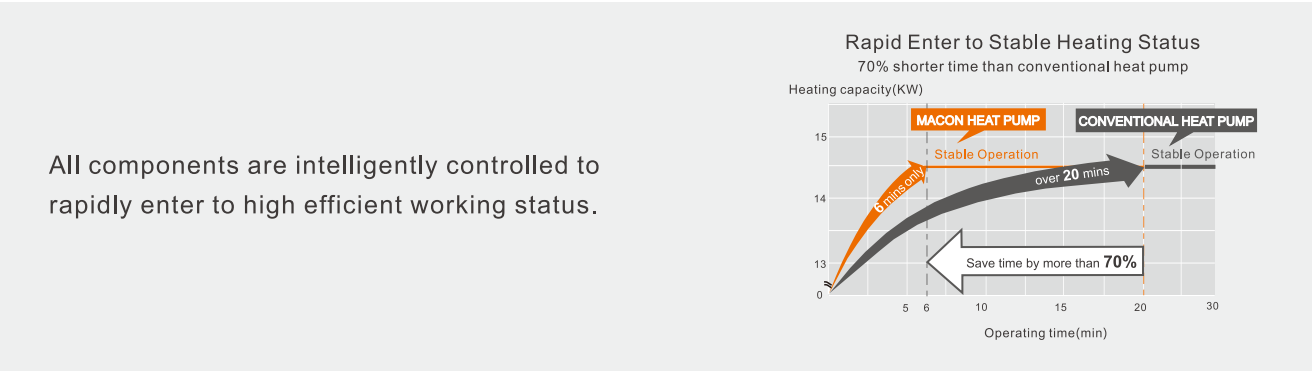
DISPLAY CONTROLLER
Intelligent controller with multiple functions.

THROTTLING PART
Accurate electronic expansion valve with fully automatic and intelligent control to the refrigerant flow.

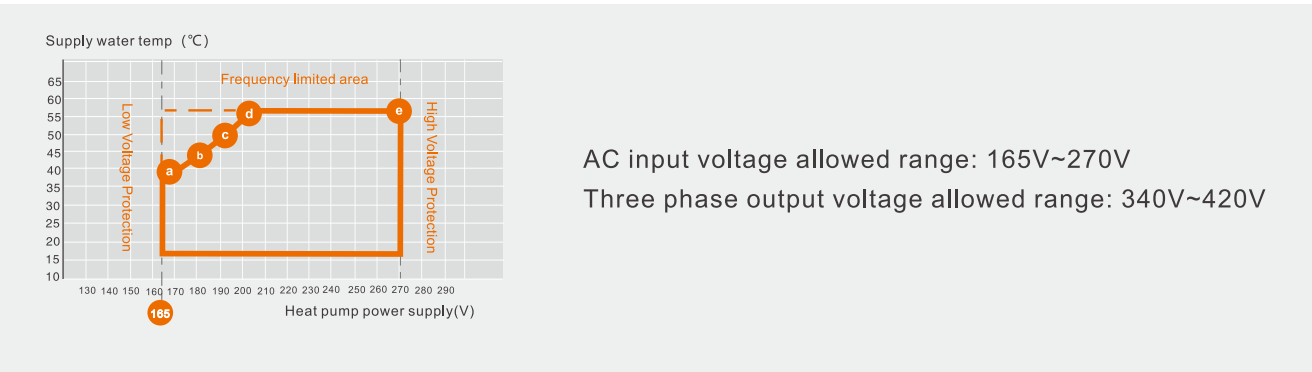
SOUNDPROOF COTTON
Wave type anti-flaming cotton for effective noise reduction.

COMPRESSOR
High efficient twin rotary DC inverter compressor with variable speeds adjusted according to actual load demands.

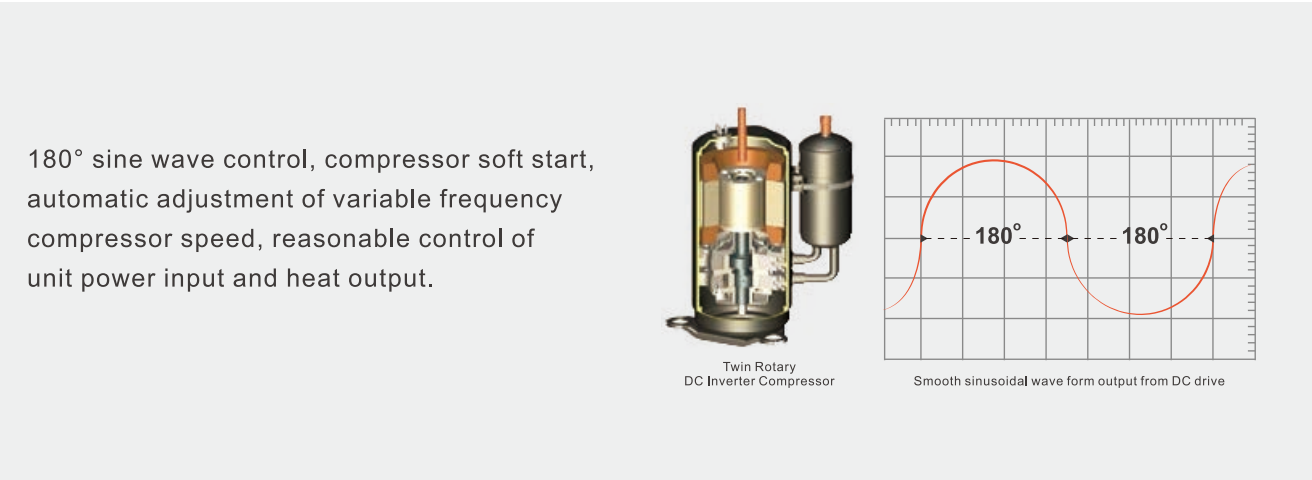
01 Rapid Heating



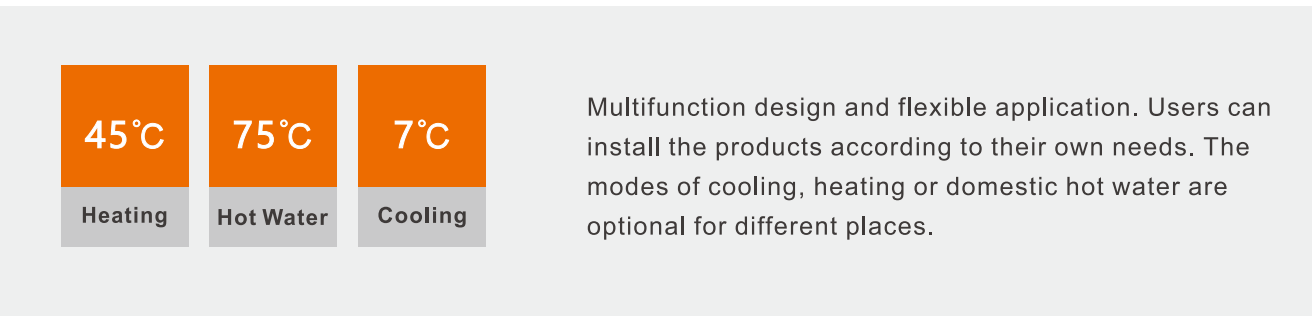
02 Wide Operating Voltage Range



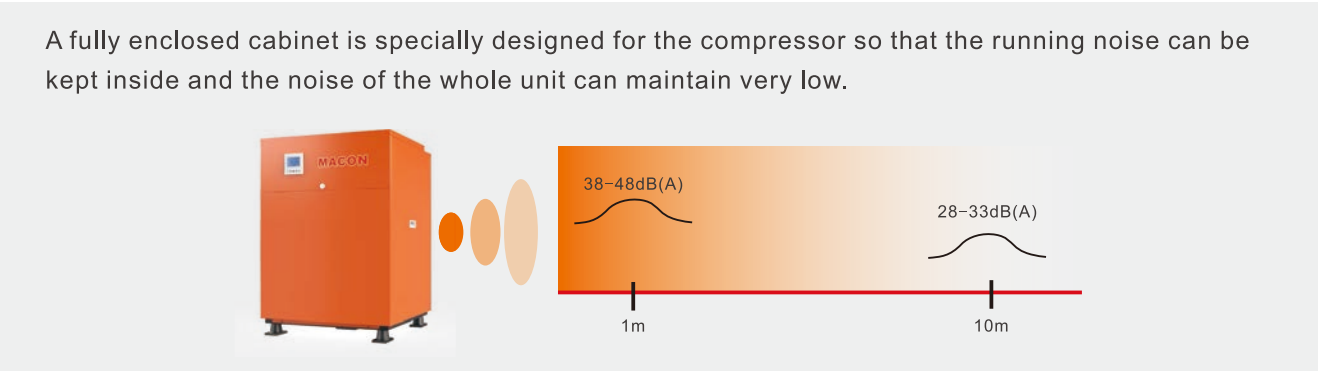
03 DC Inverter Technology



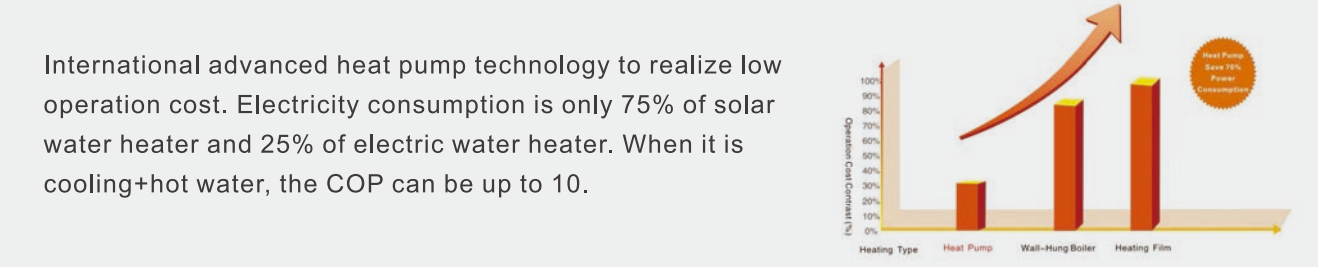
04 Multifunction Design, Flexible Application



05 Low Noise Running



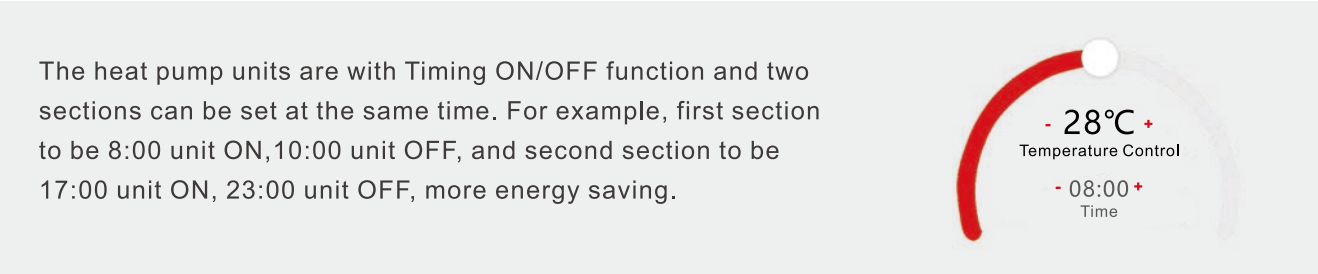
06 High Efficient & Energy-Saving



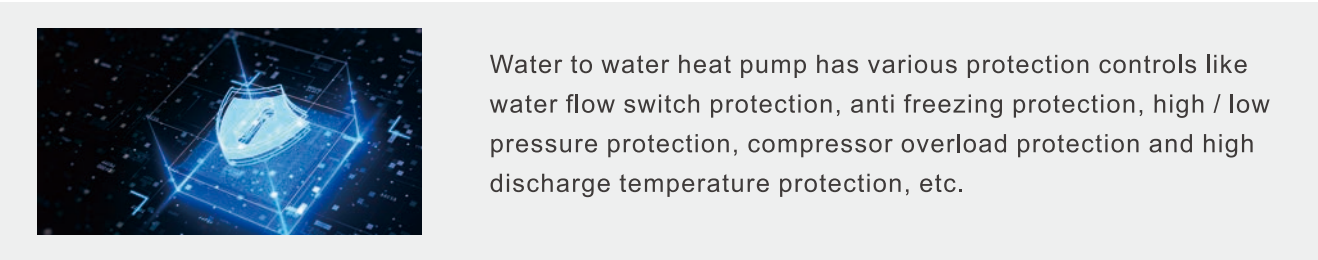
07 Module Combination Design



08 Timing In Sections Function



09 Multiple Protections And Reliable



DC INVERTER WATER TO WATER HEAT PUMP
(Heating, Cooling, Domestic Hot Water)



Model		KWCHRW	09Z-BN2	15Z-BN2	18Z-BN2	21Z-BN2	15Z-BN2	18Z-BN2	21Z-BN2
Power supply		V/PH/Hz	220/1/50	220/1/50	220/1/50	220/1/50	220/1/50	220/1/50	220/1/50
Heating	Heating capacity range	KW	2.6~12.0	4.4~20.0	5.3~24.0	6.3~28.0	4.4~20.0	5.3~24.0	6.3~28.0
		BUT/h	9000~40900	14900~68200	17900~81900	21500~95500	14900~68200	17900~81900	21500~95500
	COP range	W/W	2.8~16.0	2.8~16.0	2.8~16.0	2.8~16.0	2.8~16.0	2.8~16.0	2.8~16.0
Heating ① Water source side 10°C Using side 35°C	Heating capacity	KW	9.0	15.0	18.0	21.0	15.0	18.0	21.0
		BTU/h	30700	51200	61400	71700	51200	61400	71700
	COP	W/W	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	Power input	KW	1.64	2.73	3.27	3.82	2.73	3.27	3.82
	Current input	A	7.4	12.4	14.9	17.4	12.4	14.9	17.4
Heating ② Water source side 10°C Using side 45°C	Heating capacity	KW	8.3	13.8	16.5	19.3	13.8	16.5	19.3
		BTU/h	28300	47100	56300	65900	47100	56300	65900
	COP	W/W	4.2	4.2	4.2	4.2	4.2	4.2	4.2
	Power input	KW	1.98	3.29	3.93	4.60	3.29	3.93	4.60
	Current input	A	9.0	14.9	17.9	20.9	14.9	17.9	20.9
Heating ③ Water source side 15°C Using side 45°C	Heating capacity	KW	10.5	17.5	21.0	24.5	17.5	21.0	24.5
		BTU/h	35800	59700	71700	83600	59700	71700	83600
	COP	W/W	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	Power input	KW	2.19	3.65	4.38	5.10	3.65	4.38	5.10
	Current input	A	9.9	16.6	19.9	23.2	16.6	19.9	23.2
Cooling Water source side 30°C Using side 7°C	Cooling capacity	KW	7.8	13.0	15.6	18.2	13.0	15.6	18.2
		BUT/h	26600	44400	53200	62100	44400	53200	62100
	EER	W/W	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	Power input	KW	1.73	2.89	3.47	4.04	2.89	3.47	4.04
	Current input	A	7.9	13.1	15.8	18.4	13.1	15.8	18.4
Maximum power input		KW	3.1	5.2	6.2	7.3	5.2	6.2	7.3
Maximum current input		A	14.2	23.6	28.4	33.1	23.6	28.4	33.1
Sound level		dB(A)	46	48	48	48	48	48	48
Water connections		inch	1"	1"	1"	1"	1"	1"	1"
Water flow range (5~3°C△T)		m³/h	1.55~2.60	2.58~4.30	3.10~5.20	3.60~6.10	2.58~4.30	3.10~5.20	3.60~6.10
Refrigerant type			R290	R290	R290	R290	R290	R290	R290
Unit dimensions (L/W/H)		mm	550/590/625	600/640/680	600/640/680	600/640/680	600/600/850	600/600/850	600/600/850
Pacakage dimensions (L/W/H)		mm	640/600/660	730/670/820	730/670/820	730/670/820	650/650/880	650/650/880	650/650/880

Remarks:
Heating ①: Using side water inlet/outlet temperature: 30°C/35°C, water source side inlet/outlet temperature: 10°C/7°C.
Heating ②: Using side water inlet/outlet temperature: 40°C/45°C, water source side inlet/outlet temperature: 10°C/7°C.
Heating ③: Using side water inlet/outlet temperature: 40°C/45°C, water source side inlet/outlet temperature: 15°C/10°C.
Cooling: Using side inlet/outlet temperature: 12°C/7°C, water source side inlet/outlet water temperature: 30°C/35°C.
Maximum power/current input do not includes water pump power/current input.
Water flow range is determined by the water source side and using side water temperature. If water temeprature is low, larger water flow is suggested to prevent heat exchanger from freezing caused by large heat exchanger temperature difference.
The specific model parameters are subject to the nameplate.

DC INVERTER WATER TO WATER HEAT PUMP
(Heating, Cooling, Domestic Hot Water)



Model		KWCHRW	15Z-SBN2	18Z-SBN2	21Z-SBN2	24Z-SBN2	30Z-SBN2	36Z-SBN2
Power supply		V/PH/Hz	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50
Heating	Heating capacity range	KW	4.4~20.0	5.3~24.0	6.2~28.0	7.0~30.0	8.8~40.0	10.5~48.0
		BUT/h	14900~68200	17900~81900	21200~95500	23900~102400	29900~136500	25800~163800
	COP range	W/W	2.8~16.0	2.8~16.0	2.8~16.0	2.8~16.0	2.8~16.0	2.8~16.0
Heating ① Water source side 10°C Using side 35°C	Heating capacity	KW	15.0	18.0	21.0	24.0	30.0	36.0
		BTU/h	51200	61400	71700	81900	102400	122800
	COP	W/W	5.5	5.5	5.5	5.5	5.5	5.5
	Power input	KW	2.73	3.27	3.82	4.36	5.45	6.55
	Current input	A	5.2	6.2	7.3	8.3	10.4	12.4
Heating ② Water source side 10°C Using side 45°C	Heating capacity	KW	13.8	16.5	19.3	22.0	27.5	33.0
		BTU/h	47100	56300	65900	75100	93800	112600
	COP	W/W	4.2	4.2	4.2	4.2	4.2	4.2
	Power input	KW	3.29	3.93	4.60	5.24	6.55	7.86
	Current input	A	6.2	7.5	8.7	9.9	12.4	14.9
Heating ③ Water source side 15°C Using side 45°C	Heating capacity	KW	17.5	21.0	24.5	28.0	35.0	42.0
		BTU/h	59700	71700	83600	95500	119400	143300
	COP	W/W	4.8	4.8	4.8	4.8	4.8	4.8
	Power input	KW	3.65	4.38	5.10	5.83	7.29	8.75
	Current input	A	6.9	8.3	9.7	11.1	13.8	16.6
Cooling Water source side 30°C Using side 7°C	Cooling capacity	KW	13.0	15.6	18.2	20.8	26.0	31.2
		BUT/h	44400	53200	62100	71000	88700	106500
	EER	W/W	4.5	4.5	4.5	4.5	4.5	4.5
	Power input	KW	2.89	3.47	4.04	4.62	5.78	6.93
	Current input	A	5.5	6.6	7.7	8.8	11.0	13.2
Maximum power input		KW	5.2	6.2	7.3	8.3	10.4	12.5
Maximum current input		A	9.9	11.9	13.8	15.8	19.8	23.7
Sound level		dB(A)	48	48	48	48	50	50
Water connections		inch	1"	1"	1"	1"	1-1/4"	1-1/4"
Water flow range (5~3°C△T)		m³/h	2.58~4.30	3.10~5.20	3.60~6.10	4.10~6.90	5.5~8.6	6.6~10.3
Refrigerant type			R290	R290	R290	R290	R290	R290
Unit dimensions (L/W/H)		mm	600/600/850	600/600/850	600/600/850	600/600/850	780/820/730	780/820/730
Pacakage dimensions (L/W/H)		mm	650/650/880	650/650/880	650/650/880	650/650/880	830/860/760	830/860/760

Remarks:
Heating ①: Using side water inlet/outlet temperature: 30°C/35°C, water source side inlet/outlet temperature: 10°C/7°C.
Heating ②: Using side water inlet/outlet temperature: 40°C/45°C, water source side inlet/outlet temperature: 10°C/7°C.
Heating ③: Using side water inlet/outlet temperature: 40°C/45°C, water source side inlet/outlet temperature: 15°C/10°C.
Cooling: Using side inlet/outlet temperature: 12°C/7°C, water source side inlet/outlet water temperature: 30°C/35°C.
Maximum power/current input do not includes water pump power/current input.
Water flow range is determined by the water source side and using side water temperature. If water temeprature is low, larger water flow is suggested to prevent heat exchanger from freezing caused by large heat exchanger temperature difference.
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