

DC INVERTER WATER TO WATER HEAT PUMP



(Heating / Cooling / Domestic Hot Water)

► Characteristics



DC inverter technology



Domestic hot water



House heating



House cooling



Quality component



Save energy



Anti freezing



Wide heating capacity

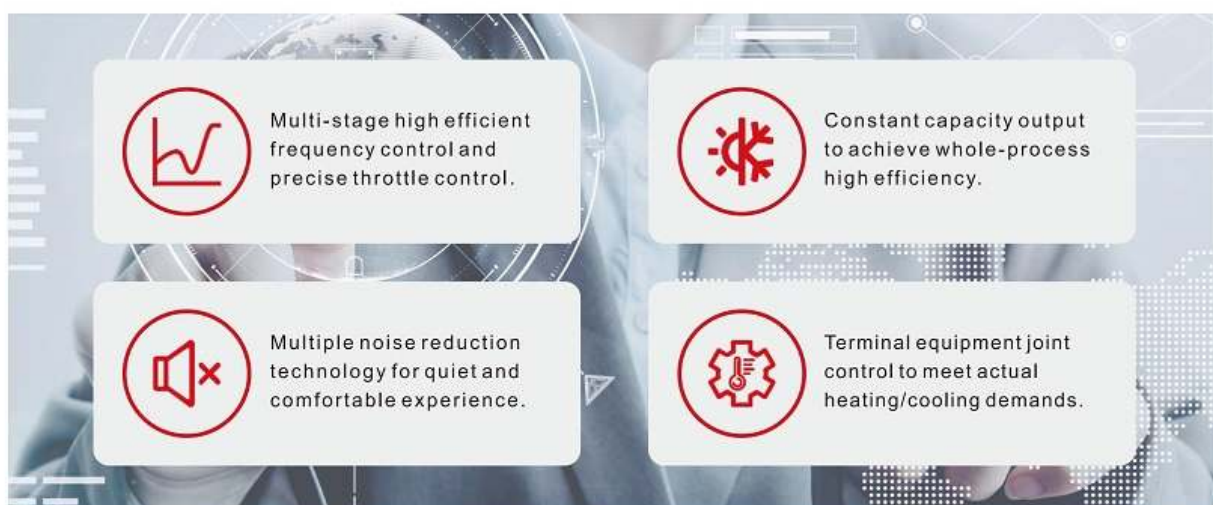


Modular control



Quiet running

► Core Technologies



► 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.

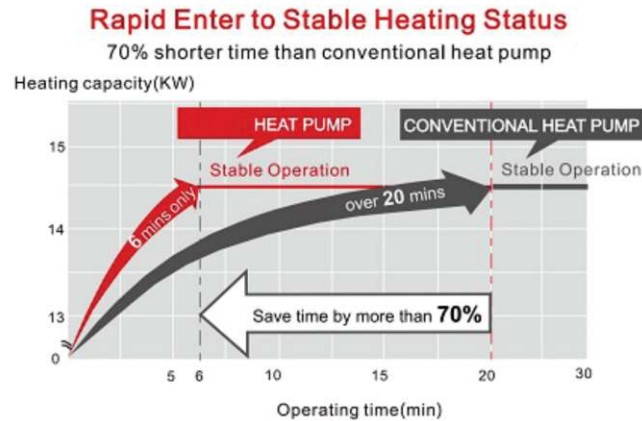
THROTTLING PART
Accurate electronic expansion valve with fully automatic and intelligent control to the refrigerant flow.

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

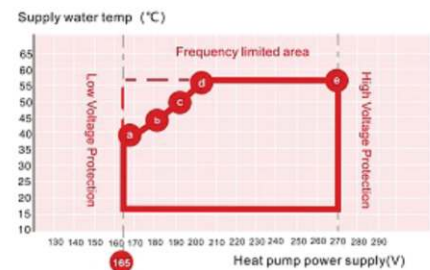
All components are intelligently controlled to rapidly enter to high efficient working status.



02 Wide Operating Voltage Range

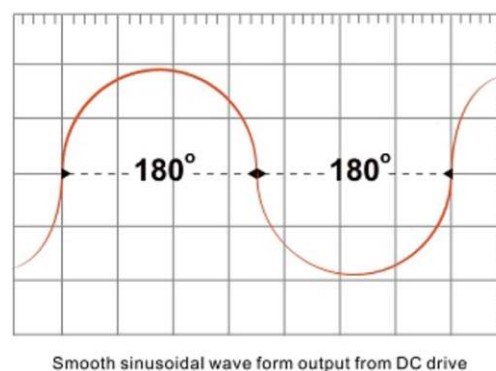
AC input voltage allowed range: 165V~270V

Three phase output voltage allowed range: 340V~420V



03 DC Inverter Technology

180° sine wave control, compressor soft start, automatic adjustment of variable frequency compressor speed, reasonable control of unit power input and heat output.



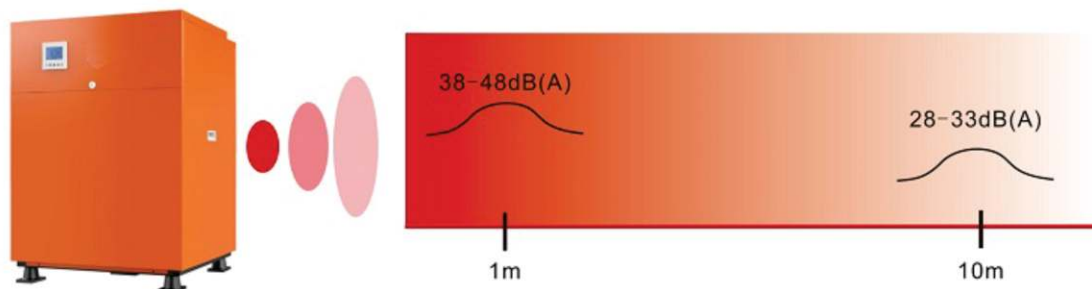
04 Multifunction Design, Flexible Application

Multifunction design and flexible application. Users can install the products according to their own needs. The modes of cooling, heating or domestic hot water are optional for different places.

45°C	55°C	7°C
Heating	Hot Water	Cooling

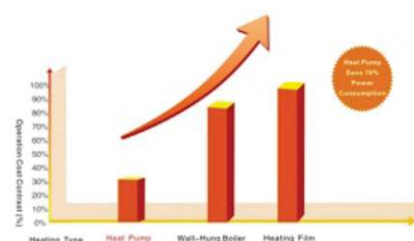
05 Low Noise Running

A fully enclosed cabinet is specially designed for the compressor so that the running noise can be kept inside and the noise of the whole unit can maintain very low.



06 High Efficient & Energy-Saving

International advanced heat pump technology to realize low operation cost. Electricity consumption is only 75% of solar water heater and 25% of electric water heater. When it is cooling+hot water, the COP can be up to 10.



07 Module Combination Design

This design is suitable for commercial, industrial, agricultural places with large hot water demands. One central controller is able to control 16 modular units.



08 Timing In Sections Function

The heat pump units are with Timing ON/OFF function and two sections can be set at the same time. For example, first section to be 8:00 unit ON, 10:00 unit OFF, and second section to be 17:00 unit ON, 23:00 unit OFF, more energy saving.



09 Multiple Protections And Reliable

Water to water heat pump has various protection controls like water flow switch protection, anti freezing protection, high / low pressure protection, compressor overload protection and high discharge temperature protection, etc.



DC Inverter Water To Water Heat Pump (Heating, Cooling, Domestic Hot Water)



Model			09	15	18	30	36
Power supply		V/PH/Hz	220/1/50	380/3/50	380/3/50	380/3/50	380/3/50
Heating	Heating capacity range	KW	2.6~12.0	4.4~20.0	5.3~24.0	8.8~40.0	10.5~48.0
		BUT/h	9000~40900	14900~68200	17900~81900	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
Heating ① Brine side 10°C Water side 35°C	Heating capacity	KW	9.0	15.0	18.0	30.0	36.0
		BTU/h	30700	51200	61400	102400	122800
	COP	W/W	5.5	5.5	5.5	5.5	5.5
	Power input	KW	1.64	2.73	3.27	5.45	6.55
	Current input	A	7.4	5.2	6.2	10.4	12.4
Heating ② Brine side 10°C Water side 45°C	Heating capacity	KW	9.0	15.0	18.0	30.0	36.0
		BTU/h	30700	51200	61400	102400	122800
	COP	W/W	4.2	4.2	4.2	4.2	4.2
	Power input	KW	2.14	3.57	4.29	7.14	8.57
	Current input	A	9.7	6.8	8.1	13.6	16.3
Heating ③ Brine side 15°C Water side 45°C	Heating capacity	KW	10.5	17.5	21.0	35.0	42.0
		BTU/h	35800	59700	71700	119400	143300
	COP	W/W	4.8	4.8	4.8	4.8	4.8
	Power input	KW	2.19	3.65	4.38	7.29	8.75
	Current input	A	9.9	6.9	8.3	13.8	16.6
Cooling Brine side 30°C Water side 7°C	Cooling capacity	KW	7.8	13.0	15.6	26.0	31.2
		BUT/h	26600	44400	53200	88700	106500
	EER	W/W	4.5	4.5	4.5	4.5	4.5
	Power input	KW	1.73	2.89	3.47	5.78	6.93
	Current input	A	7.9	5.5	6.6	11.0	13.2
Max. power input		KW	3.1	5.2	6.2	10.4	12.5
Max. current input		A	14.2	9.9	11.9	19.8	23.7
Sound level		dB(A)	46	48	48	50	50
Water connection		inch	1"	1"	1"	1-1/4"	1-1/4"
Water flow volume range (5~3°C ΔT)		m³/h	1.7~2.6	2.8~4.3	3.3~5.2	5.5~8.6	6.6~10.3
Refrigerant type			R32	R32	R32	R32	R32
Unit dimensions (L/W/H)		mm	550/590/625	600/600/850	600/600/850	780/820/730	780/820/730
Package dimensions (L/W/H)		mm	640/600/660	650/650/880	650/650/880	830/860/760	830/860/760

Remarks:

Heating ①: water side inlet/outlet water temperature: 30°C/35°C, brine side inle/outlet water temperature: 10°C/7°C.

Heating ②: water side inlet/outlet water temperature: 40°C/45°C, brine side inle/outlet water temperature: 10°C/7°C.

Heating ③: water side inlet/outlet water temperature: 40°C/45°C, brine side inle/outlet water temperature: 15°C/10°C.

Cooling: water side inlet/outlet water temperature: 12°C/7°C, brine side inlet/outlet water temperature: 30°C/35°C.

Water pump power/current input is not included in the maximum power/current input.

Water flow volume range: water flow volume range is determined by the brine side temperaturer and water side temperature. If the water temperature is low, large water flow volume is suggested to avoid large heat exchange temperature difference that cause freezing of the heat exchanger.

The specific model parameters are subject to the nameplate.

DC Inverter Water To Water Heat Pump (Heating, Cooling, Domestic Hot Water)



Model			45	60	75	90	150
Power supply		V/PH/Hz	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50
Heating	Heating capacity range	KW	13.1~60.0	17.5~80.0	21.9~100.0	26.3~120.0	43.8~200.0
		BUT/h	44700~204700	59700~273000	74600~341200	89600~409400	149300~682400
	COP range	W/W	2.8~16.0	2.8~16.0	2.8~16.0	2.8~16.0	2.8~16.0
Heating ① Brine side 10°C Water side 35°C	Heating capacity	KW	45.0	60.0	75.0	90.0	150.0
		BTU/h	153500	204700	255900	307100	511800
	COP	W/W	5.5	5.5	5.5	5.5	5.5
	Power input	KW	8.18	10.91	13.64	16.36	27.27
	Current input	A	15.5	20.7	25.9	31.1	51.8
Heating ② Brine side 10°C Water side 45°C	Heating capacity	KW	45.0	60.0	75.0	90.0	150.0
		BTU/h	153500	204700	255900	307100	511800
	COP	W/W	4.2	4.2	4.2	4.2	4.2
	Power input	KW	10.71	14.29	17.86	21.43	35.71
	Current input	A	20.3	27.1	33.9	40.7	67.8
Heating ③ Brine side 15°C Water side 45°C	Heating capacity	KW	52.5	70.0	87.5	105.0	175.0
		BTU/h	179100	238800	298600	358300	597100
	COP	W/W	4.8	4.8	4.8	4.8	4.8
	Power input	KW	10.94	14.58	18.23	21.88	36.46
	Current input	A	20.8	27.7	34.6	41.5	69.2
Cooling Brine side 30°C Water side 7°C	Cooling capacity	KW	39.0	50.0	62.5	75.0	125.0
		BUT/h	133100	170600	213300	255900	426500
	EER	W/W	4.5	4.5	4.5	4.5	4.5
	Power input	KW	8.67	11.11	13.89	16.67	27.78
	Current input	A	16.5	21.1	26.4	31.7	52.8
Max. power input		KW	15.6	20.0	25.0	30.0	50.0
Max. current input		A	29.6	38.0	47.5	57.0	95.0
Sound level		dB(A)	52	53	55	55	62
Water connection		inch	1-1/2"	2"	3"	3"	4"
Water flow volume range (5~3°C ΔT)		m³/h	7.7~12.0	11.0~17.2	13.8~21.5	16.5~25.7	28.9~43.0
Refrigerant type			R32	R32	R32	R32	R32
Unit dimensions (L/W/H)		mm	780/820/730	1220/1100/1515	1220/1100/1515	1630/1100/1515	2010/1100/1515
Package dimensions (L/W/H)		mm	830/860/760	1350/1200/1680	1350/1200/1680	1750/1200/1680	2130/1200/1680

Remarks:

Heating ①: water side inlet/outlet water temperature: 30°C/35°C, brine side inle/outlet water temperature: 10°C/7°C.

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