



Inverter Technology



Intelligent Defrosting



Colorful Touch Display

K-thermal Series DC Inverter Air to Water Heat Pump Monoblock Type & Split Type



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About US



Zhejiang CEN New Energy Stock Co., Ltd. was established in year 2001, in the early time, the company mainly produces solar water heater controllers and other related products. In 2009, General Manager Xia Qing decided to transform the product, especially set up the heat pump department. The company began to focus on the production and sales of heat pump water heater products, and with the establishment of the water tank production workshop in 2013, formed a research and development, production and sales system of heat pump control system, heat pump water heater and water tank.

In the solar water heater control system, our company has maintained the top three level in China for a long time. In the field of heat pump water heaters, we started to enter the field of real estate engineering in 2017 and achieved remarkable results. In this field, our household heat pump water heaters Sales ranked second in the province.

In the international market, our products have passed the CE certification of the European Union by TUV, and the sales volume of our products is growing rapidly and steadily at a rate of 20%~30% per year.

In 2017, we successfully listed on the New Third Board and began to officially move into the capital market. And moved into a new factory in the same year, with a total plant area of about 50,000 square meters.

Our GMPI-certified heat pump laboratory can test the unit's capacity from 1HP to 30HP, the minimum test ambient temperature can reach -30 degrees Celsius, and the highest test ambient temperature is 52 degrees Celsius.

Looking forward to the future, we will continue to focus on the broad heat pump field, making our own contribution to energy conservation and environmental protection providing comfortable hot water for thousands of families

Certification

Quality Guarantee



MONOBLOCK



SPLIT

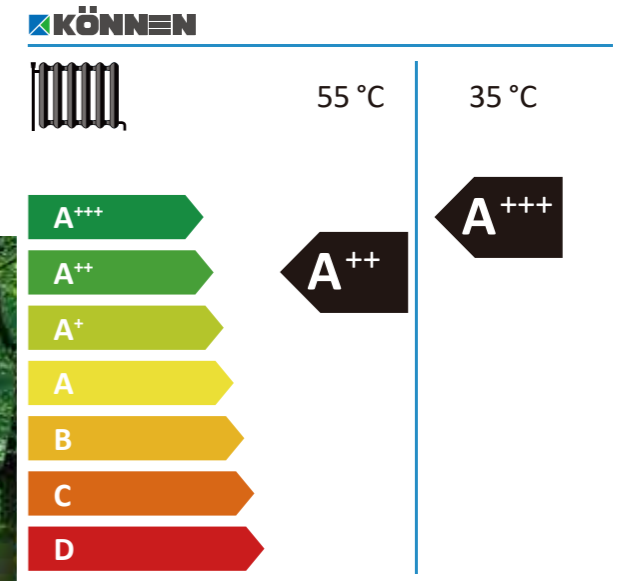
Product Features

The KÖNNEN K-THERMAL series of DC inverter heat pump are available in two styles: Monoblock type and Split type. We use R32 environmentally friendly refrigerant with a GWP of only 675, making our contribution to reducing global carbon emissions and controlling global warming. At the same time, with the help of high energy efficiency level and DC Inverter technology, compared with traditional heat pumps, the power consumption of our heat pumps is greatly reduced, which not only protects the environment, but also allows us to live a better life.



Environmental Refrigerant

Super High Efficiency A+++





FULL DC INVERTER AIR TO WATER HEAT PUMP

Less attenuation in low temperature technology etc.. Ensure the units operating well with wide range between - 25 ~ 43 degrees condition.



Heating energy efficiency level A+++ at water temperature 35 deg C.
Heating energy efficiency level A++ at water temperature 55 deg C.

 HEATING  COOLING  HOT WATER

3 FUNCTIONS, 5 MODES * Single Hot Water * Single Heating * Single Cooling * Hot Water + Cooling * Hot Water + Heating



New R32 refrigerant, ODP = 0, GWP = 675. Working together to reduce greenhouse gas emissions.



Low noise, down to min. 42 dBA based on 1 meter distance, three layers of sound insulation material: two layers for compressor, one layer for the whole machine shell. And thanks for the ultra low noise Wilo pump, you can only hear a little noise from the fan motor.



Wifi function for our heat pumps, control your heat pump from our special designed App.



Anti-Legionella function: With Forced electric heating function, Kill Legionella anytime, healthy water for family members.



Intelligent defrosting, after careful debugging by our R&D engineers, defrosts as quickly as possible while ensuring that the heating is less affected. At the same time, with the help of the patented technology - "fin bottom heating tube", the possibility of freezing and frosting at the bottom of the fin is reduced.



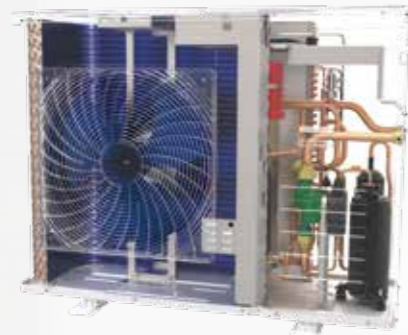
Inverter heat pump Vs. Non-Inverter heat pump

The water pump runs intermittently, and in the case of using as little as possible, the water temperature of the entire waterway installation system is guaranteed to be stable, the temperature difference when the unit is restarted is reduced, and the high-frequency operation time is eliminated or reduced, so as to achieve the effect of energy saving and noise reduction.

Panasonic

FULL DC INVERTER AIR TO WATER HEAT PUMP

Realizing speed stepless adjustment, lower noise but higher efficiency, running more stable.



DC BRUSHLESS FAN MOTOR

Intelligent control, according to the ambient temperature of the motor to realize the turns with speed stepless adjustment, aluminum material of shell, improving heating dissipation and waterproof performance, long and durable service life.



With high quality "Acol" brand expansion tank & Water flow switch inside, save installation costs and time.



Touch screen controller, concise style, easier operation.



Built-in adjustable electric back-up from 3KW to 9KW, faster heating for your room when there is requirement, also more stable heating when weather is extremely cold(Only for Split type).



Use SWEP high-quality plate heat exchanger to provide higher efficiency and more suitable for the use of anti-icing fluid.



High precision electronic expansion valve: use electronic expansion valve for controlling, reach 500 steps adjustment, adjust super heat degrees accurately, achieve high efficiency operation system.



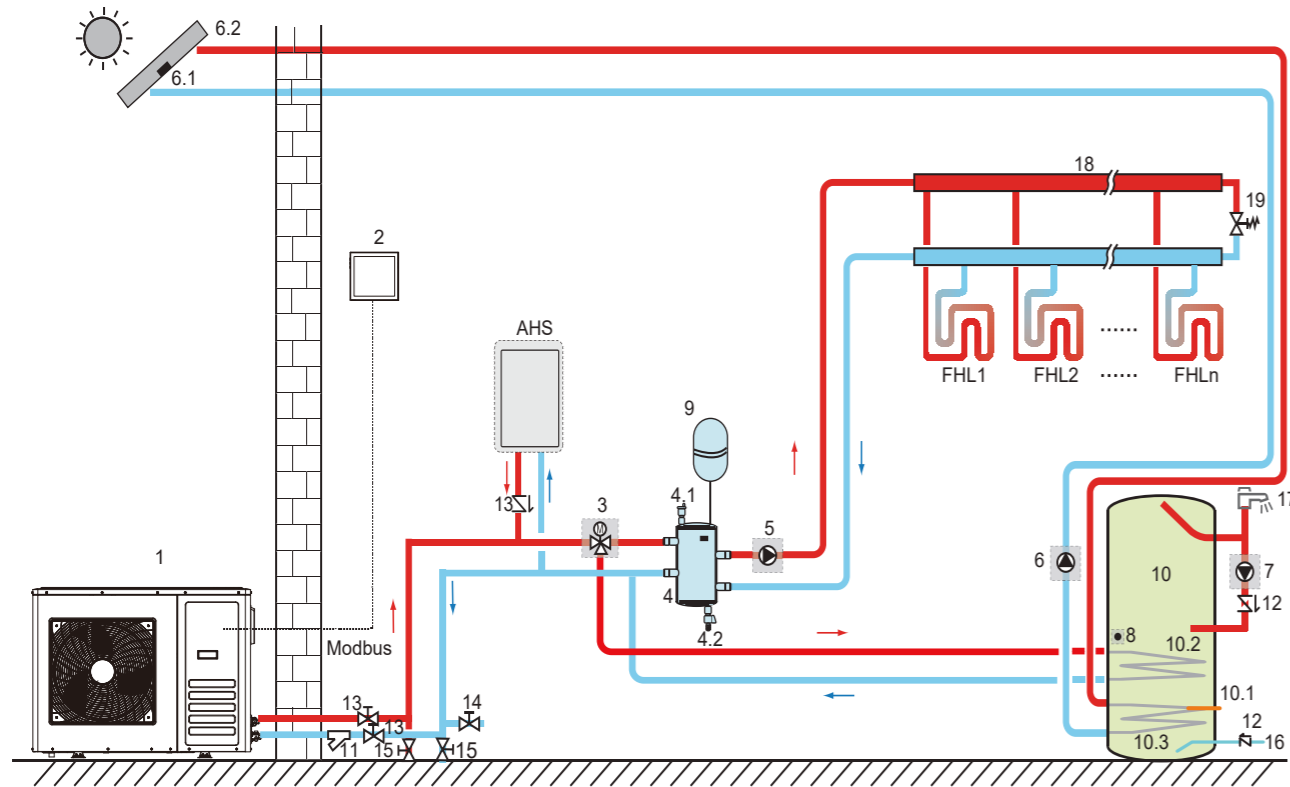
BUILT-IN INVERTER PUMP

Reduce installation cost and time. More flexible control; Optimized energy-saving control software enables the pump to achieve maximum energy-saving operation; The pressure of the pipe network is set according to the actual water consumption, and the water output of the pump is automatically controlled, which reduces the phenomenon of water leakage; The soft start of the pump is realized by the frequency converter, so that the pump can realize the non-impact switching from the power frequency to the variable frequency, so as to prevent the impact of the pipe network, avoid the pressure of the pipe network exceeding the limit and the pipeline rupture.



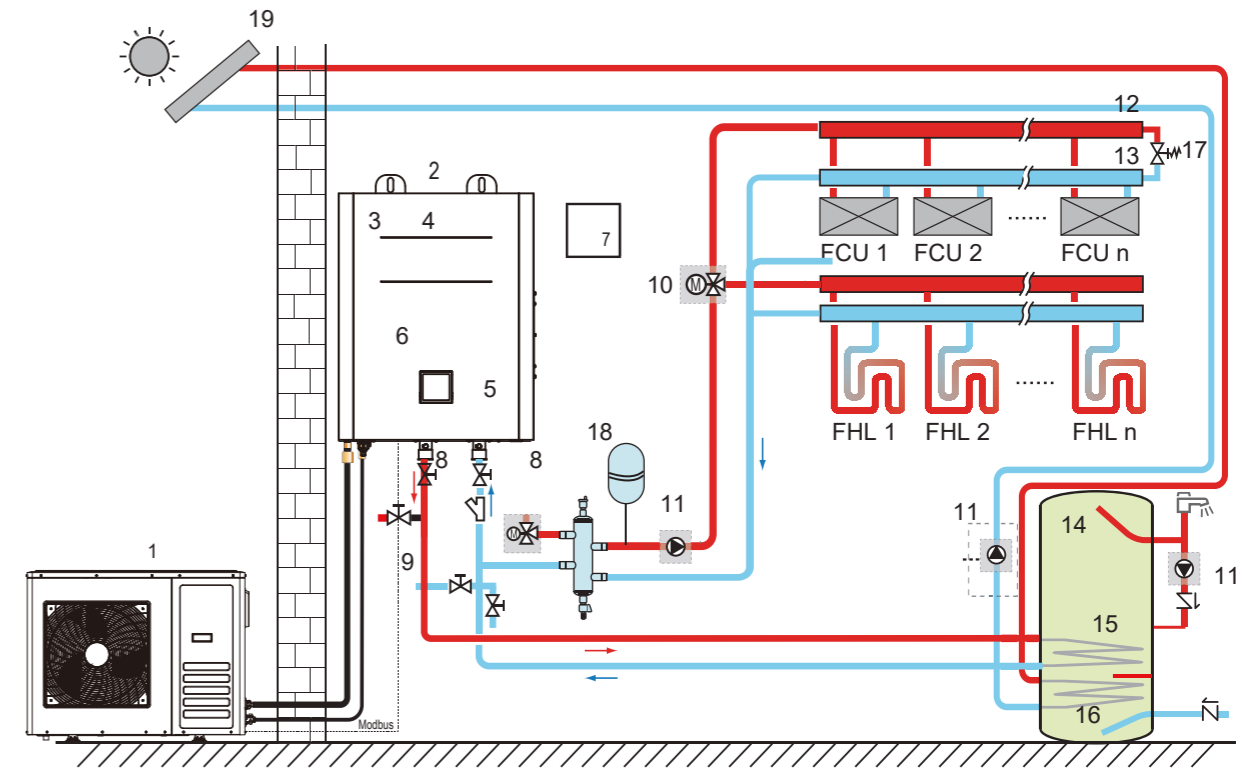
With Acol high quality water flow switch, more accurate detection of water flow, more timely protection

Installation Chart



1	Outdoor unit	10.1	TBH: Back-up heater for the domestic hot water tank (field supply)
2	User interface	10.2	Coil 1: heat pump heat exchanger
3	3-way valve (field supply)	10.3	Coil 2: solar system heat exchanger
4	Buffer tank (field supply)	11	Filter (additional equipment)
4.1	Automatic air relief valve	12	Check valve (field supply)
4.2	Drain valve	13	Shut-off valve (field supply)
5	External circulation pump (field supply)	14	Filling valve (field supply)
6	Solar pump (field supply)	15	Drain valve (field supply)
6.1	Solar collector temperature sensor (field supply)	16	Pipe supplying water from the mains (field supply)
6.2	Solar collectors (field supply)	17	Hot water tap (field supply)
7	DHW pump (field supply)	18	Distributor/collector (field supply)
8	DHW tank temperature sensor (additional equipment)	19	Bypass valve (field supply)
9	Expansion vessel (field supply)	FHL...11	Floor heating (field supply)
10	DHW tank (field supply)	AHS	Auxiliary heat source (field supply)

Note: This diagram illustrates the general principle of circuit operation. It should not be considered as a design.



1	Outdoor unit	12	Distributor (field supply)
2	Indoor unit	13	Collector (field supply)
3	Plate heat exchanger	14	DHW tank (field supply)
4	Back-up electric heater	15	Exchanger coil
5	Internal circulation pump	16	Solar collector coil
6	User interface (integrated with indoor unit)	17	Bypass valve (field supply)
7	Room thermostat	18	Hydraulic separator/buffer tank (field supply)*
8	Shut-off valve (field supply)	19	Solar collector
9	Automatic 3-way valve (field supply)	FHL 1...n	Floor heating (field supply)
10	Automatic 3-way valve (field supply)	FCU 1...n	Fan-coils (field supply)
11	External circulation pump (field supply)		

Note: This diagram illustrates the general principle of circuit operation. It should not be considered as a design.



DC Inverter air to water heat pump for Heating & Cooling & Hot Water(Monoblock type)

Model		DCI03PS-H3D	DCI05PS-H5D	DCI06PS-H5D	DCI08P-H8D	
Power supply	V / Hz	220V/50Hz			380V/50Hz	
Dry/Wet bulb: 7/6°C; Water inlet/outlet:35/40°C						
Heating capacity	kW	10.30	14.61	16.13	20.10	
Input power	kW	2.12	3.12	3.49	4.32	
COP	/	4.85	4.68	4.62	4.65	
Dry/Wet bulb:7/6°C; Water inlet/outlet:45/50°C						
Heating capacity	kW	10.50	14.79	15.87	19.90	
Input power	kW	2.78	3.99	4.62	6.02	
COP	/	3.78	3.70	3.44	3.30	
Dry/Wet bulb:7/6°C; Water inlet/outlet:47/55°C						
Heating capacity	kW	10.05	13.50	15.15	19.54	
Input power	kW	3.38	4.24	4.99	6.32	
COP	/	2.97	3.18	3.04	3.09	
Dry/Wet bulb:35/24°C; Water inlet/outlet: 23/18°C						
Cooling capacity	kW	10.26	14.83	16.07	20.07	
Input power	kW	2.33	3.49	4.09	5.02	
EER	/	4.41	4.24	3.93	4.00	
Dry/Wet bulb:35/24°C; Water inlet/outlet:12/7°C						
Cooling capacity	kW	8.32	12.73	13.96	18.00	
Input power	kW	2.85	4.47	4.95	6.42	
EER	/	2.92	2.85	2.82	2.80	
Seasonal Heating Energy Efficiency Rating	LWT at 35°C	A+++	A+++	A+++	A+++	
	LWT at 55°C	A++	A++	A++	A++	
SCOP	LWT at 35°C	4.59	4.69	4.72	4.62	
	LWT at 55°C	3.57	3.64	3.65	3.41	
SEER	LWT at 7°C	4.63	4.66	4.60	4.62	
	LWT at 18°C	6.55	6.81	6.70	6.73	
Max. Current	A	16.00	21.00	23.00	12.00	
Rated Current	A	10.00	14.00	15.00	8.00	
Water pressure drop	kPa	30.00	32.00	34.00	36.00	
System pressure	Mpa	1/4.15				
Refrigerant	Type	R32	R32	R32	R32	
	Quantity	kg	2.50	2.90	3.50	4.00
GWP value		675.00	675.00	675.00	675.00	
Equivalent CO ₂		Ton	1.69	1.96	2.36	2.70
Fan motor	Type	DC				
	Quantity	1.00	2.00	2.00	2.00	
Noise level		dB(A)	57.00	62.00	62.00	68.00
Waterproof level		IPX4				
Water pipe connection	Inlet	mm	φ 25	φ 25	φ 25	φ 32
	Outlet	mm	φ 25	φ 25	φ 25	φ 32
Unit dimensions		mm	1120x490x860	1120x490x1260	1120x490x1260	1120x490x1568
Package dimensions		mm	1155x500x1010	1155x500x1410	1155x500x1410	1155x500x1718
Net Weight		kg	75	112	125	141

Note: The above parameters may have some differences from the final product because of products updating. Please refer to final product label or contact with us for any update.



DC Inverter air to water heat pump for Heating & Cooling & Hot Water(Split type)

Model		DCI03PS-H3DS	DCI05PS-H5DS	DCI06PS-H5DS	DCI08P-H8DS	
Power supply	V / Hz	220V/50Hz			380V/50Hz	
Dry/Wet bulb: 7/6°C; Water inlet/outlet:35/40°C						
Heating capacity	kW	10.50	14.71	16.23	20.20	
Input power	kW	2.15	3.13	3.51	4.33	
COP	/	4.88	4.70	4.63	4.66	
Dry/Wet bulb:7/6°C; Water inlet/outlet:45/50°C						
Heating capacity	kW	10.60	14.89	15.97	20.00	
Input power	kW	2.79	4.01	4.63	6.05	
COP	/	3.80	3.71	3.45	3.31	
Dry/Wet bulb:7/6°C; Water inlet/outlet:47/55°C						
Heating capacity	kW	10.15	13.60	15.25	19.64	
Input power	kW	3.39	4.26	5.00	6.34	
COP	/	2.99	3.19	3.05	3.10	
Dry/Wet bulb:35/24°C; Water inlet/outlet: 23/18°C						
Cooling capacity	kW	10.40	14.93	16.17	20.17	
Input power	kW	2.35	3.51	4.10	5.03	
EER	/	4.43	4.25	3.94	4.01	
Dry/Wet bulb:35/24°C; Water inlet/outlet:12/7°C						
Cooling capacity	kW	8.46	12.83	14.06	18.10	
Input power	kW	2.88	4.49	4.97	6.43	
EER	/	2.93	2.86	2.83	2.81	
Seasonal Heating Energy Efficiency Rating	LWT at 35°C	A+++	A+++	A+++	A+++	
	LWT at 55°C	A++	A++	A++	A++	
SCOP	LWT at 35°C	4.55	4.64	4.70	4.64	
	LWT at 55°C	3.55	3.58	3.65	3.43	
SEER	LWT at 7°C	4.66	4.67	4.62	4.65	
	LWT at 18°C	6.58	6.85	6.74	6.76	
Max. Current	A	16.00	21.00	23.00	12.00	
Rated Current	A	10.00	14.00	15.00	8.00	
Water pressure drop	kPa	40.00	42.00	44.00	46.00	
System pressure	Mpa	1/4.15				
Refrigerant	Type	R32	R32	R32	R32	
	Quantity	kg	2.50	2.90	3.50	4.00
GWP value		675.00	675.00	675.00	675.00	
Equivalent CO ₂		Ton	1.69	1.96	2.36	2.70
Fan motor	Type	DC				
	Quantity	1.00	2.00	2.00	2.00	
Noise Level (outdoor/indoor)		dB(A)	57/35	62/35	62/35	68/35
Waterproof level		IPX4				
Refrigerant pipe between indoor and outdoor unit	Gas pipe	mm	φ 15.88	φ 15.88	φ 15.88	φ 19
	Liquid pipe	mm	φ 9.52	φ 9.52	φ 9.52	φ 9.52
Water pipe connection	Inlet	mm	DN25	DN25	DN25	DN32
	Outlet	mm	DN25	DN25	DN25	DN32
Outdoor unit dimensions		mm	1160x490x860	1160x490x1260	1160x490x1260	1160x490x1568
Outdoor unit package dimensions		mm	1195x500x1010	1195x500x1410	1195x500x1410	1195x500x1718
Indoor unit dimensions		mm	530*770*340	530*770*340	530*770*340	530*770*340
Indoor unit package dimensions		mm	570*790*400	570*790*400	570*790*400	570*790*400
Outdoor unit Net Weight		kg	60	90	100	120
Indoor unit Net Weight		kg	33.5	35	36	38

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