ESTECH
ENERGY

ESTECH-DC INVERTER AIR TO WATER HEAT PUMP MONO TYPE

ESTECH ENERGY LLC

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MONOBLOCK

Certification

Quality Guarantee

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Product Features

The ESTECH 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.

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Product Features

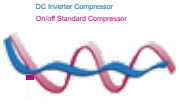
FULL DC INVERTER AIR TO WATER HEAT PUMP
Less attenuation in low temperature technology etc.. Ensure the units operating well with wide range between - 25 ~ 43 degrees condition.

HEATING COOLING HOT WATER

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

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.

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



Inverter heat pump Vs. Non-Inverter heat pump

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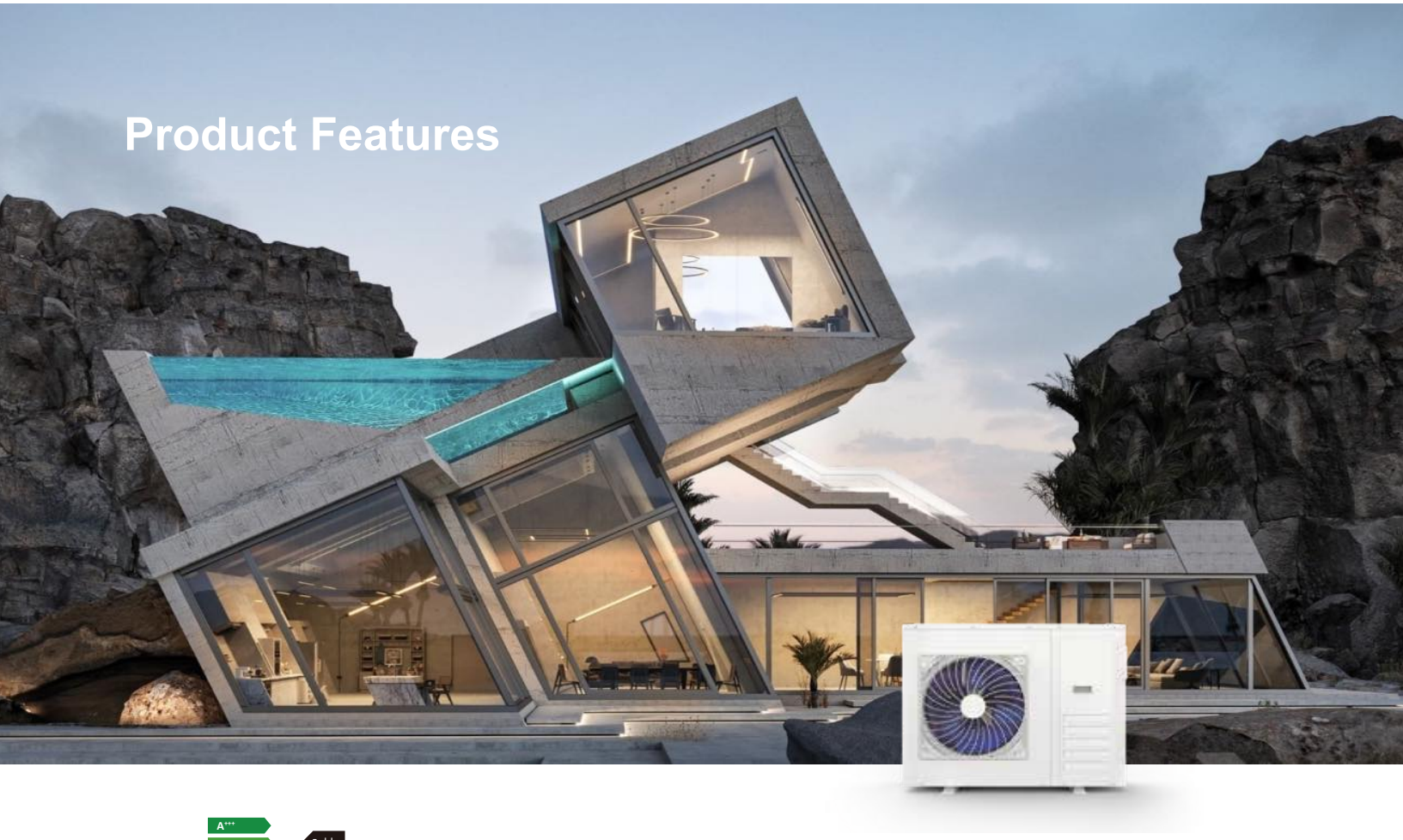
Product Features



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

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

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

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.

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.

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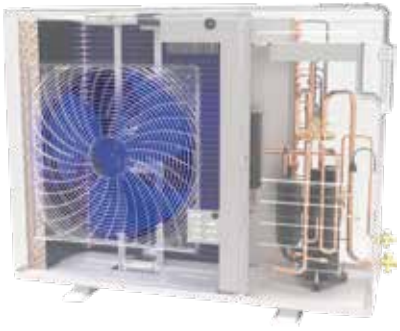
Main Components

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 relize 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).

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Main Components

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

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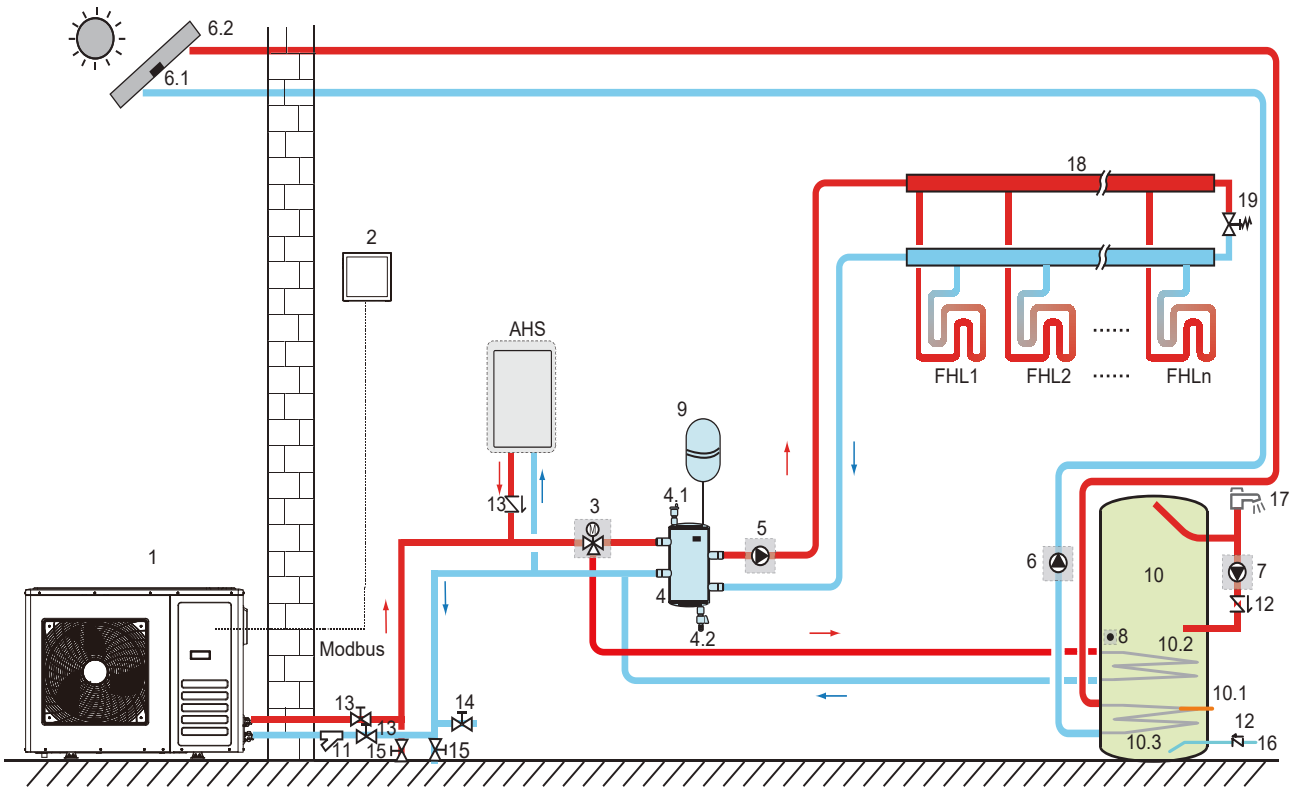
Installation Chart



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.

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Parameters

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

Model			DCMB10	DCMB15	DCMB16	DCMB20
Power supply		V / Hz	220V/50Hz			380V/50Hz
Dry/Wet bulb: 7/6℃; Water inlet/outlet:35/40℃						
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℃; Water inlet/outlet:45/50℃						
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℃; Water inlet/outlet:47/55℃						
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℃; Water inlet/outlet: 23/18℃						
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℃; Water inlet/outlet:12/7℃						
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℃	A+++	A+++	A+++	A+++
		LWT at 55℃	A++	A++	A++	A++
SCOP		LWT at 35℃	4.59	4.69	4.72	4.62
		LWT at 55℃	3.57	3.64	3.65	3.41
SEER		LWT at 7℃	4.63	4.66	4.60	4.62
		LWT at 18℃	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	ϕ25	ϕ25	ϕ25	ϕ32
	Outlet	mm	ϕ25	ϕ25	ϕ25	ϕ32
Unit dimensions		mm	1120x490x860	1120x490x1260	1120x490x1260	1120x490x1568
Pacakge 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 lable or contact with us for any update.

High quality-
We believe that quality is the best business plan

R&D team-
Professional R&D team for new and high-efficiency heat pumps

Reasonable prices-
Competitive prices which help you to occupy your market

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Heat pumps

Best components-
World class components suppliers for your heat pumps

Fast delivery-
We always keep the promise to you, you always keep the promise to your customers

Long warranty-
TWO years for heat pumps, THREE years warranty for Compressor and Condenser

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