

ESTECH
ENERGY

**ESTECH-DC INVERTER AIR
TO WATER HEAT PUMP
SPLIT TYPE**



ESTECH ENERGY LLC



SPLIT TYPE

Certification
Quality Guarantee



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.



**Environmental
Refrigerant**

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.

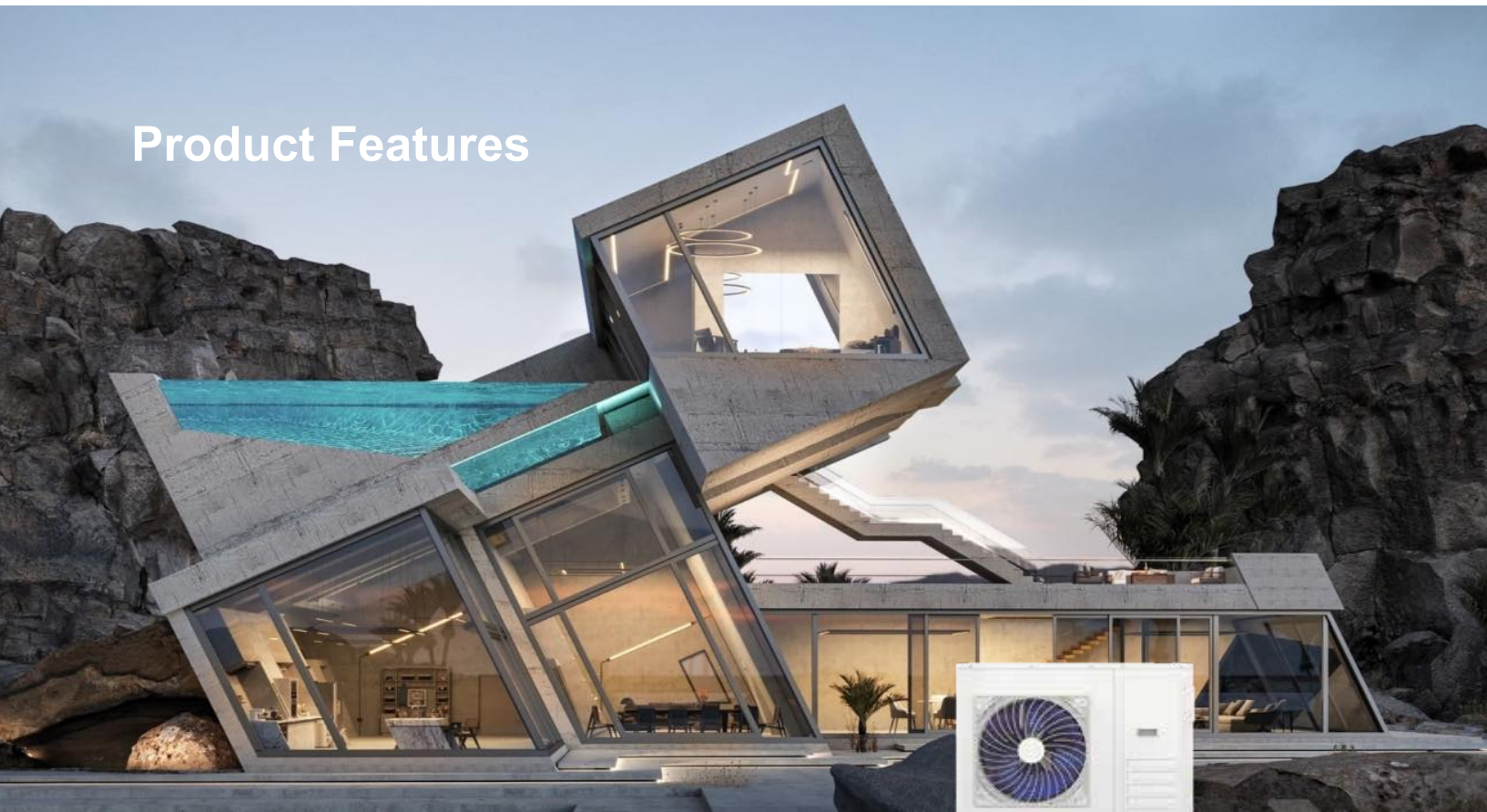


Anti-Legionella function: With Forced electric heating function, Kill Legionnella anytime, healthy water for family members.



Inverter heat pump Vs. Non-Inverter heat pump

Product Features



A⁺⁺

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.

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 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).

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.



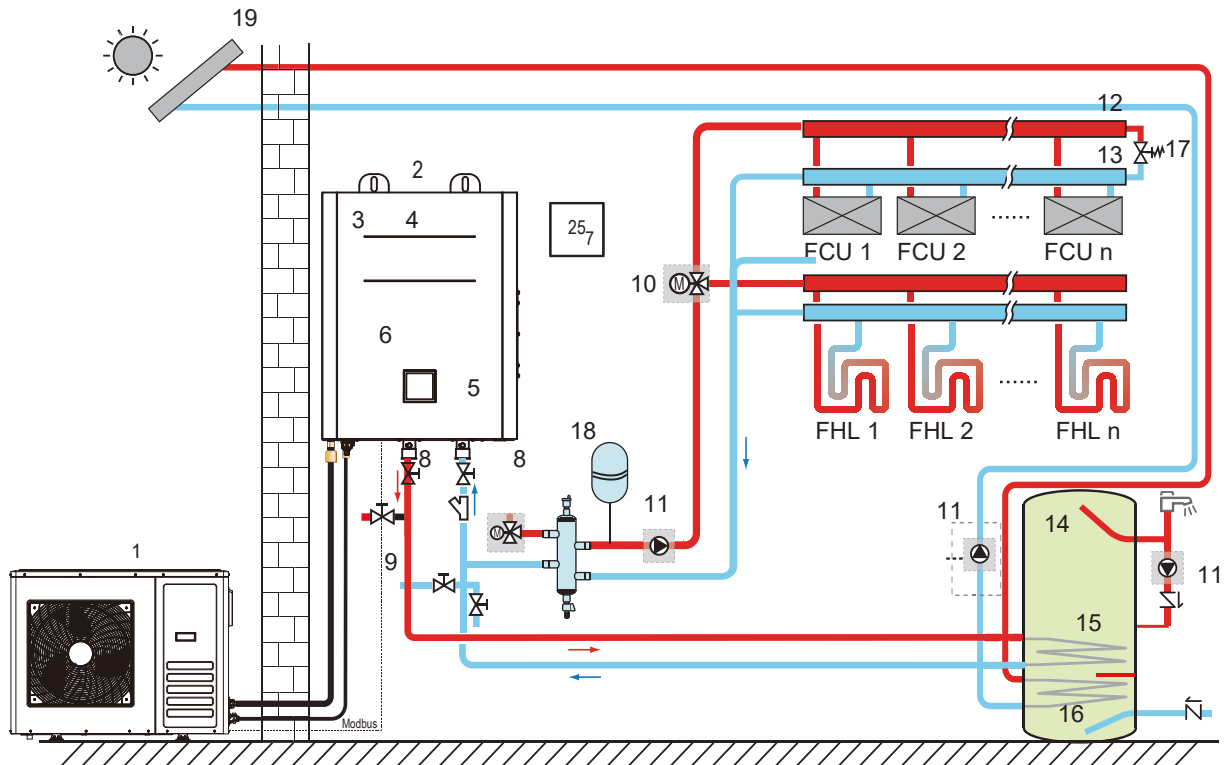
BUILT-IN INVERTER PUMP

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

Installation Chart



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.

Parameters



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

Model		EDCST 10	EDCST 14	EDCST 16	EDCST 20	
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	4.59	4.69	4.72	4.64	
	LWT at 55°C	3.57	3.64	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	

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.

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



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



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



ESTECH ENERGY

Heat pumps

Best compo-
nents-
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 Compres-
sor and Condenser



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