

**ESTECH**  
**ENERGY**

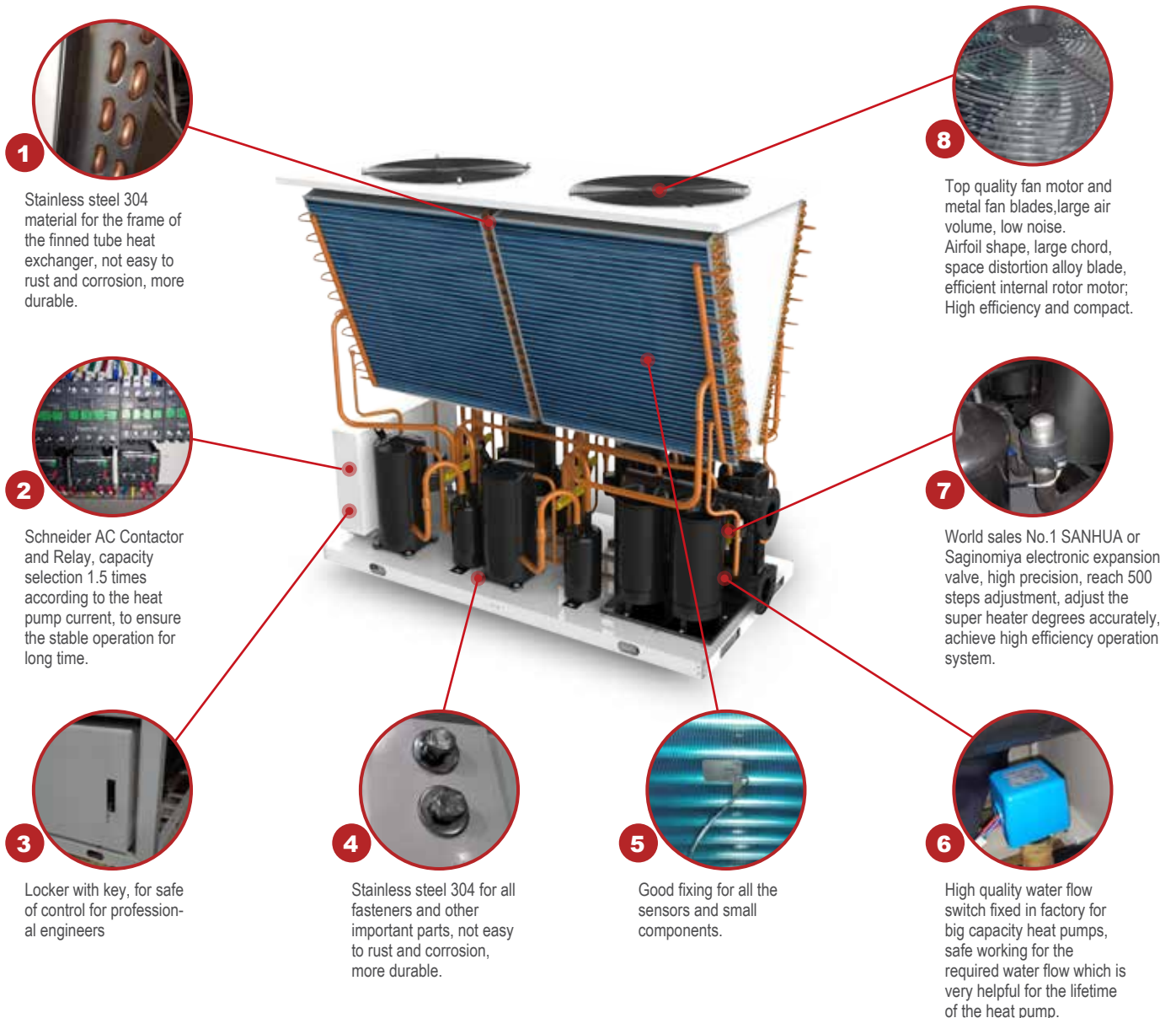
**COMMERCIAL  
HIGH TEMPERATURE  
AIR SOURCE HEAT PUMP WATER HEATER  
(ASHP)**



ESTECH ENERGY LLC

## ADVANTAGE

- a. Copeland compressor and R134a refrigerant for best operation, low pressure but high water temperature.
- b. Stainless steel 304 material for all fasteners, frame of evaporator and etc..
- c. Low noise fan motor with metal fan blades, Durable and reliable.
- d. World famous brands of components, such as Saginomiya electronic expansion valves, SANHUA 4-way valves, Schneider AC contactor and etc.,
- e. With complete testing for good quality and highest COP.
- f. All copper material for water pipes.
- g. Advanced control system for reaching all of your requirements, such as Rs485, Modbus for BMS.
- h. Unique cabinet designing, for your better marketing.



## COPELAND SCROLL ▶

Copeland or Panasonic high quality compressor specially for heat pump water heater, the best operation and last for longest running time:

1. Adopt scroll heating technology;
2. With much wider operation range for different ambient temperature;
3. Not only can produce hot water for daily life use, can also produce high water temperature up to 80 degrees C, it can reach the requirement for daily life and industrial use;
4. Special designing for the heat pump water heater of high suction exhaust temperature and system high condensing temperature and high condensing pressure, performance is stable and efficient, long service life.



## ◀ V-SHAPE

V-shape finned tube heat exchanger for evaporator, the best design for high capacity and efficiency.

Open angle v-shaped coils achieve the maximum efficiency at all conditions. A specific design of the condensing modules allow a reduction in both unit footprint as well as clearances, thus facilitating service and maintenance procedures. The structure is also designed to allow the easiest access to all the components in order to simplify maintenance work.

## SHELL & TUBE HEAT EXCHANGER ▶

High quality and efficiency Shell & tube heat exchanger, , adopt high efficiency fin tube which heating area is 3.7 times than ordinary smooth tube, larger diameter waterway design to make water flow more smoothly, energy efficiency is more superior.



## Commercial High Temperature Air Source Heat Pump Water Heater (ASHP)

Rated heating capacity	kW	8	13.5	8	13.5	18	26	35	46	55	65	80	95	130	
Rated input power	kW	2.20	3.65	2.19	3.66	4.96	7.12	9.64	12.60	15.24	17.96	22.22	26.32	36.21	
Rated input current	A	9.58	15.90	4.12	6.89	9.32	13.39	18.13	23.69	28.64	33.76	41.78	49.47	68.08	
Maximum input power	kW	2.86	4.75	2.95	4.95	6.69	9.62	13.02	17.01	20.57	24.24	30.00	35.53	48.89	
Maximum input current	A	14.92	24.77	5.59	9.36	12.65	18.18	24.60	32.16	38.87	45.81	56.70	67.14	92.39	
Performance coefficient(COP)	/	3.63	3.69	3.65	3.68	3.63	3.65	3.63	3.65	3.61	3.62	3.60	3.61	3.59	
Setting water temperature	°C	70 °C (default) 28-80 °C (adjustable)													
Rated hot water yields	△t40	L/H	172	290.2	172	290.2	387	559	752.5	989	1182.5	1397.5	1720	2042.5	2795
	△t60	L/H	114.7	193.5	114.6	193.5	258	372.7	501.7	659.3	788.3	931.7	1146.6	1361.6	1863.3
Power supply		1N 220V/50Hz (Special power supply for option)					3N 380V/50Hz (Special power supply for option)								
Compressor	Type	Hermetic scroll type													
	Start mode	Directly start(Soft start for option)													
	Quantity	Unit	1	1	1	1	1	2	2	2	4	2	3	3	4
Water Side	Heat exchanger	Shell & coil(tube) heat exchanger													
	Water flow	m³/h	1.4	2.3	1.4	2.3	3.1	4.5	6.0	7.9	9.5	11.2	13.8	16.3	22.4
	Water pressure drop	kPa	≤45	≤53	≤45	≤53	≤55	≤60	≤60	≤60	≤65	≤68	≤70	≤70	≤75
	Connection size	DN	DN25	DN25	DN25	DN25	DN25	DN32	DN32	DN50	DN50	DN50	DN50	DN65	DN80
Air Side	Exchanger	Finned tube heat exchanger													
	Rated Air flow	m³/h	3500	6320	3500	6320	7500	12500	14800	14800	26000	26000	39000	39000	52000
	Rated output power of fan motor	W	120	250	120	250	370	550	750	750	1100	1100	1500	1500	2200
Protections		"1. High pressure and low pressure protection, 2. Anti-freezing protection, 3. High temperature protection, 4. Too big of the water temperature difference for outlet and inlet protection, 5. Overload protection, 6. Lack phase protection, 7. Reverse phase protection, etc.. "													
Refrigerant	Throttle type	Electronic expansion valve													
	Type	R134a													
	Quantity	kg	2.2	3.2	2.2	3.2	4.2	3.2x2	4.1x3	4.8x3	3.2x4	7.6x2	6.2x3	7.6x3	7.6x4
Noise	DB(A)	≤55	≤63	≤55	≤63	≤65	≤65	≤66	≤68	≤70	≤72	≤73	≤75	≤78	
Dimension	mm	710x710x1100					990x990x1800				1000x2050x1850				2000x2050x1850
Wooden case package dimensions(LxWxH)	mm	766x766x1146					1046x1046x1968				1056x2106x2018				2056x2106x2018
Net weight	kg	108	135	108	135	165	340	400	485	605	660	835	840	1230	
Gross weight	kg	123	150	123	150	180	370	430	515	640	695	870	875	1265	

Testing conditions:

1. Application side initial water temperature: 15 °C , end temperature 75 °C , max. temperature 80 °C .

2. Ambient temperature dry bulb 20 °C , wet bulb 15 °C .

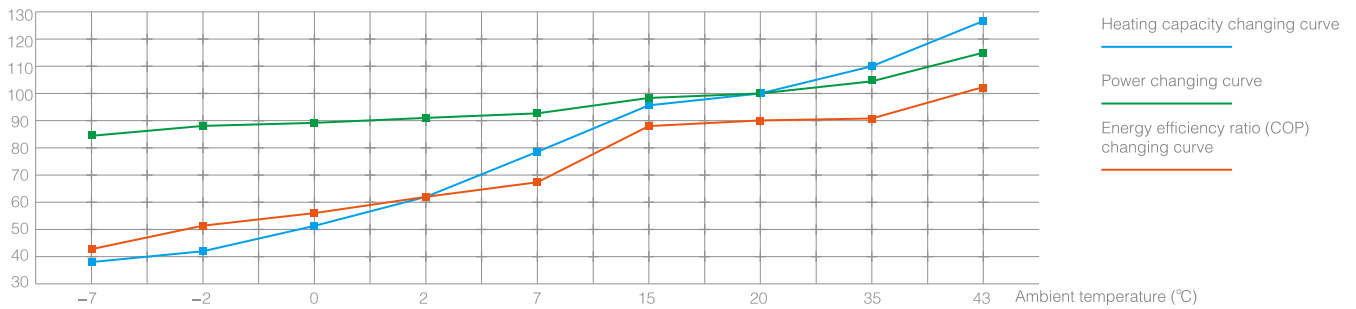
The above parameters are based on Refrigerant R134a, for parameters based on other refrigerant please contact us.

## Heating performance correction coefficient (%)

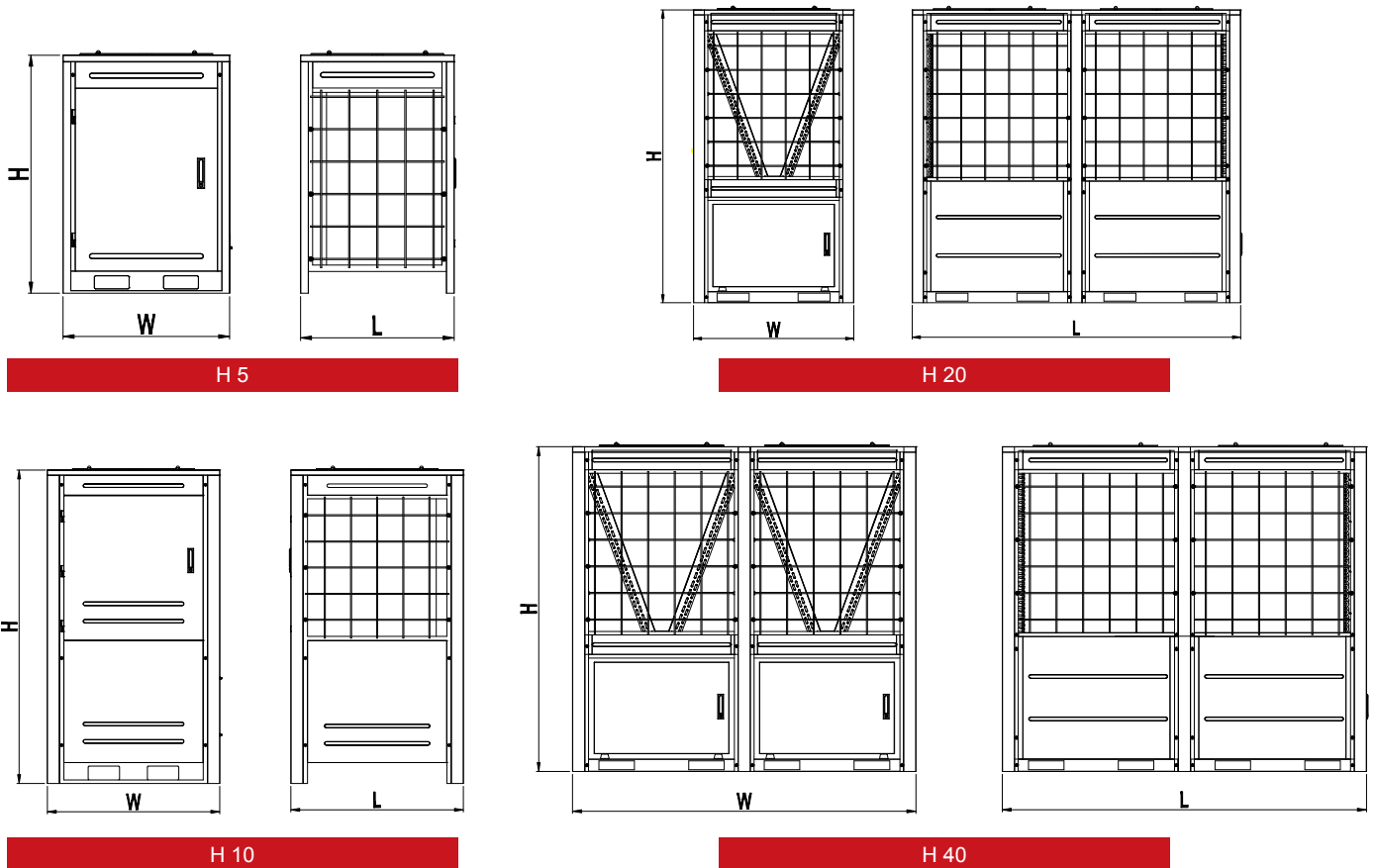
Ambient temperature (C)	-7	-2	0	2	7	15	20	30	43
Heating capacity (%)	38.0	43.8	50.9	61.5	79.8	96.0	100.0	110.0	127.0
Power (%)	85.8	87.3	89.7	90.3	93.6	98.0	100.0	105.0	115.2
Energy efficiency ratio(COP) (%)	44.3	50.2	56.7	68.1	85.3	98.0	100.0	104.8	110.2

### Heating performance correction coefficient changing curve

Correction coefficient (%)



### Product Dimensions



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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