

**ESTECH**  
**ENERGY**


**COMMERCIAL HIGH TEMPERATURE  
WATER SOURCE HEAT PUMP WATER HEATER  
(WSHP)**





ESTECH ENERGY LLC


## ADVANTAGE


- a. Copeland and R134a refrigerant for best operation, low pressure but high water temperature.
- b. Stainless steel 304 material for all fasteners.
- c. High quality shell & tube heat exchanger, coaxial heat exchanger or plate type heat exchanger for option.
- 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.
- h. Unique cabinet designing, for your better marketing.
- i. Emergency switch for power on/off.




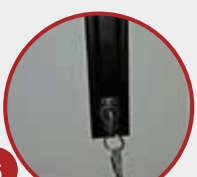
**1**  The new environmental refrigerant R134A is safety and environmental protection. The system pressure can be lower than common ones, which can effectively increase the heat pump working range for heating the water temperature to highest 80 degrees Celsius..

**2**  PVC thermal contraction protection for electronic expansion valve, so that the EEV can work normally with long time.

**3**  World sales No.1 SANHUA or Saginomiya electronic expansion valve, high precision, reach 500 steps adjustment, adjust the super heater degrees accurately, achieve high efficiency operation system.

**4**  Stainless steel 304 for all fasteners and other important parts, not easy to rust and corrosion, more durable.

**5**  Schneider or CHNT AC Contactor and Relay, capacity selection 1.5 times according to the heat pump current, to ensure the stable operation for long time.

**6**  Locker with key, for safe of control for professional engineers

## ▶ COPELAND & PANASONIC 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.



## ◀ SHELL & TUBE HEAT EXCHANGER

shell & tube heat exchanger with special care for the pressure protection (Co-axial heat exchanger or plate type heat exchanger can be adopted if customer require). Shell & tube heat exchanger adopt high efficiency fin tube which heating area is 3.6 times than ordinary smooth tube, larger diameter waterway design to make water flow more smoothly, energy efficiency is more superior.

## Danfoss or Emerson dryer filter ▶

High dehydration performance, effectively prevent deterioration of the POE oil  
 At the end of the coat layer for corrosion resistant epoxy powder paint  
 Steel shell vibration control, vibration resistance excellent results  
 Filter is massiveness  
 40 micron filtration precision  
 The highest operating pressure: 47 bar  
 UL/CUL certification, certification number: SA3124



## Commercial High Temperature Water Source Heat Pump Water Heater (WSHP)

Rated heating capacity	KW	8.5	14	8.5	14	19	28	40	50	56	66	84	100	132		
Rated power	KW	1.91	3.10	1.90	3.07	4.21	6.19	8.97	11.29	12.44	14.83	18.96	22.42	29.86		
Rated current	A	8.36	13.61	3.57	5.77	7.92	11.65	16.86	21.22	23.40	27.88	35.65	42.15	56.14		
Maximum power	KW	2.44	3.97	2.43	3.93	5.39	7.93	11.48	14.45	15.93	18.98	24.27	28.70	38.23		
Maximum current	A	11.35	18.48	4.60	7.43	10.19	14.99	21.70	27.30	30.11	35.88	45.87	54.24	72.25		
Performance coefficient	COP	4.46	4.51	4.47	4.56	4.51	4.52	4.46	4.43	4.50	4.45	4.43	4.46	4.42		
Rated hot water yields	△t40	L/H	183	301	183	301	409	602	860	1075	1204	1419	1806	2150	2838	
	△t60	L/H	122	201	122	201	272	401	573	717	803	946	1204	1433	1892	
Setting water temperature	℃	70 ℃ (default) 28-80 ℃ (adjustable)														
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	Direct(Soft start for option)														
	Quantity	Unit	1	1	1	1	1	2	2	2	4	2	3	3	4	
Application side heat exchanger	Type	Shell & tube heat exchanger (Tube in tube heat exchanger or Plate type heat exchanger for option)						Shell & tube heat exchanger								
	Water flow	m <sup>3</sup> /h	1.5	2.4	1.5	2.4	3.3	4.8	6.9	8.6	9.6	11.4	14.4	17.2	22.7	
	Water pressure drop	kPa	≤50	≤50	≤50	≤50	≤50	≤50	≤60	≤60	≤60	≤70	≤70	≤70	≤70	
	Pipe connection	DN	DN20	DN25	DN20	DN25	DN25	DN32	DN50	DN50	DN50	DN50	DN65	DN65	DN65	
	Pipe type		Inner thread						Flange							
Heat source side heat exchanger	Type	Shell & tube heat exchanger														
	Water flow	m <sup>3</sup> /h	1.1	1.9	1.1	1.9	2.5	3.8	5.4	6.7	7.5	8.8	11.3	13.4	17.7	
	Water pressure drop	kPa	≤50	≤50	≤50	≤50	≤50	≤50	≤60	≤60	≤60	≤70	≤70	≤70	≤70	
	Pipe size	DN	DN20	DN25	DN20	DN25	DN25	DN32	DN50	DN50	DN50	DN50	DN65	DN65	DN65	
Connection type		Inner thread						Flange								
Protections		1. High and low pressure protection, 2. Anti-freeze protection, 3. High temperature protection, 4. Overload protection, 5. Reverse of phase protection, Lack of phase protection, etc.														
Refrigerant	Type	R134A														
	Quantity(KG)	2.2	3.3	2.2	3.3	4.2	3.3x2	6.5x2	8x2	8.2x2	8.8x2	8.2x3	8.8x3	8.8x4		
Noise	DB(A)	≤53	≤55	≤55	≤55	≤58	≤58	≤62	≤65	≤65	≤65	≤70	≤75	≤75		
Dimension	mm	790x415x590						790x710x950			2000x1000x1600					
Wooden case package dimensions(L*W*H)	mm	836x461x752						836x756x1112			2056x1056x1768					
Net weight	KG	68	95	65	95	135	195	320	480	795	885	985	1180	1210		
Gross weight	KG	78	105	75	105	145	215	340	515	830	920	1020	1215	1245		

**Note:**

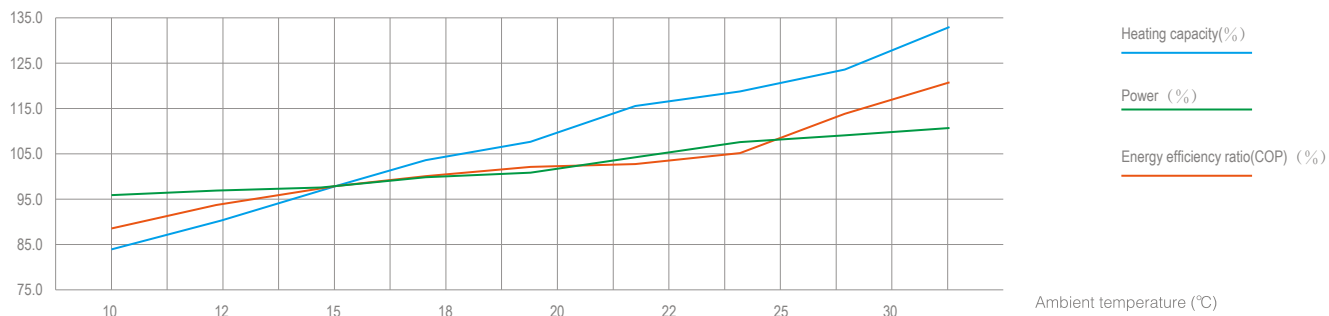
1. Hot water heating standard condition: use side initial water temperature 15 ℃, end water temperature 55 ℃; heat source side water input temperature 15 ℃.

2. The above parameters are based on refrigerant R134A, for parameters based on other refrigerant please contact us.

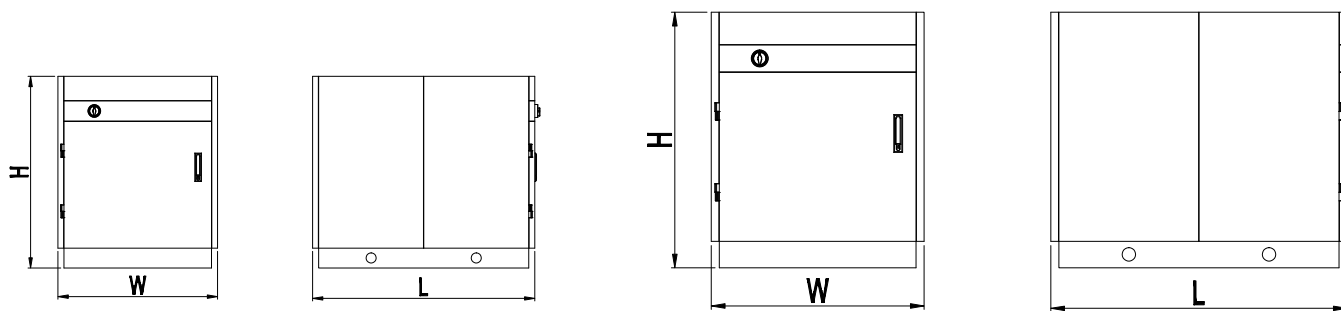
3. The above parameters may have some differences from the final product because of products updating, please refer to final product label when buy, or refer to us for any information. Our company keeps the right to interpret.

## Hot water heating performance correction coefficient(%)

Heat source side water input temperature (°C)	10	12	15	18	20	22	25	30
Heating capacity(%)	84.6	91.0	100.0	105.0	110.0	116.0	124.0	132.6
Power (%)	95.6	98.0	100.0	102.0	105.0	108.0	109.3	110.0
Energy efficiency ratio(COP) (%)	88.5	92.9	100.0	102.9	104.8	107.4	113.4	120.5

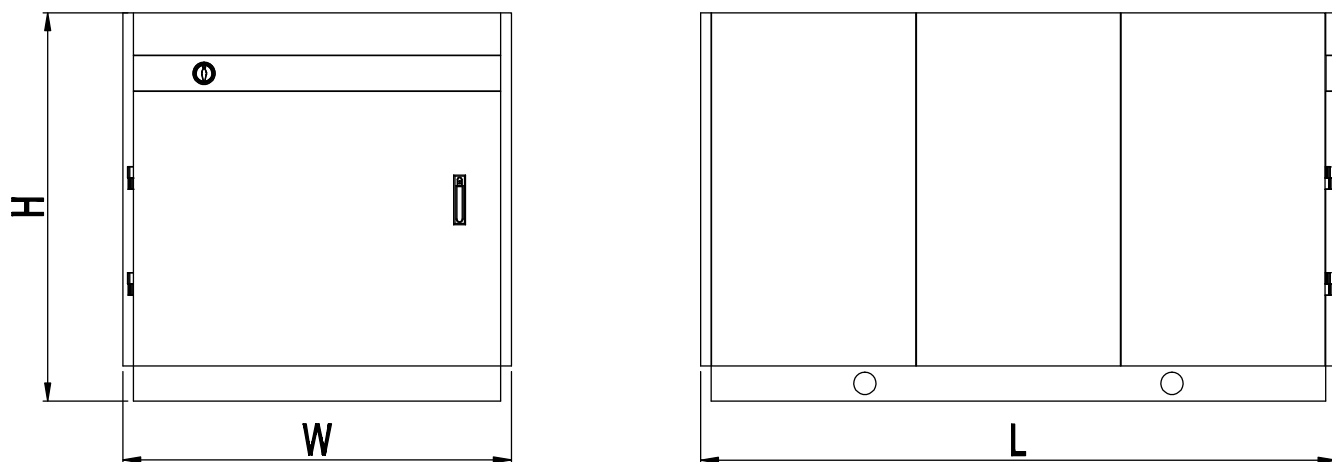


## Product Dimensions



CH 5

CH 10



CH 20

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 Compre-  
sor and Condenser



# **ESTECH ENERGY**

**ESTECH ENERGY LLC**

Estech Energy LLC.  
Address: 4228, Hampshire Lane, El Paso, TX 79902  
E-mail: [mail@estechenergy.com](mailto:mail@estechenergy.com)  
Web: [www.estechenergy.com](http://www.estechenergy.com)