

HIGH TEMPERATURE
WATER SOURCE HEAT PUMP WATER HEATER
W03H SERIES





COMPANY PROFILE

Zhejiang CEN New Energy Stock Co., Ltd., is a professional heat pump factory combines R&D, manufacture, installation, trade, and after-sales of heat pumps, with complete performance 25H/P laboratory.

Our main products are air source heat pumps for home and commercial use, groundwater source heat pumps, combine cooling heating & hot water heat pumps, swimming pool heat pumps, etc.

We cooperate with first-class national academic institutions, established the heat pump research and development center, the laboratory, and testing center, With more than 25 engineers working on heat pump design, research and optimization.

Our laboratory can imitate different ambient conditions between -20°C to 50°C, to get the complete parameters from testing. Precise experiments make sure that our product design is reasonable, safe and stable.

We also have a professional installation team, which offers the best solution for installation, and instructions for after-sales. Our aim is to produce high quality product with our best service, and to grow up with our clients. Let's together create a win-win business relationship, and a more prosperous future!

COMPONENTS BRANDS WE COOPERATED



W03H 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. Strong wooden case packing for safe sea transportation.
- h. Advanced control system for reaching all of your requirements.
- i. Unique cabinet designing, for your better marketing.
- j. Emergency switch for power on/off.

1 **R-134A REFRIGERANT**

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.

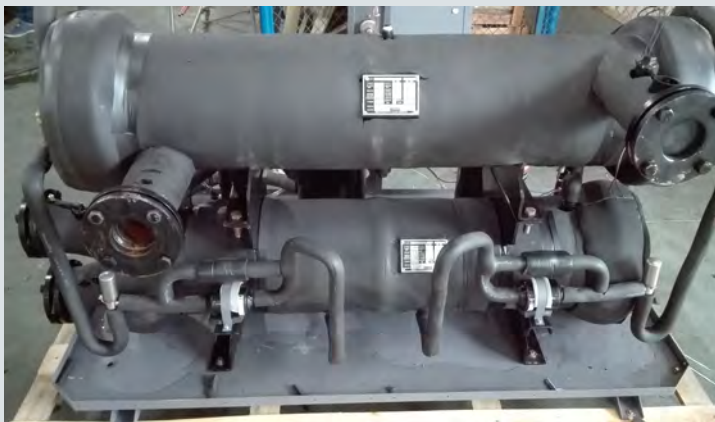
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Locker with key, for safe of control for professional engineers

▶ 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.

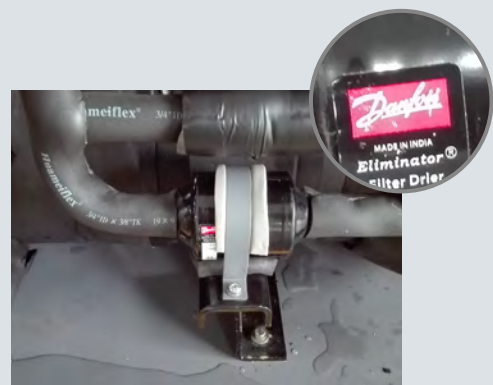


◀ SHELL & TUBE HEAT EXCHANGER

China famous brand 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



W03H (High temperature Water source heat pump water heater)

W03H-1808

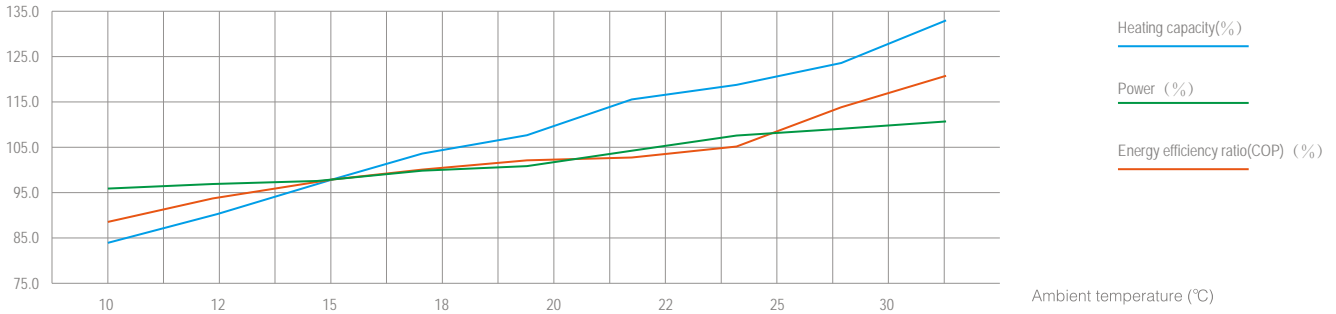
		WH03Ps-W5	WH05Ps-W5	WH03P-W5	WH05P-W5	WH07P-W5	WH10P-W10	WH14P-W10	WH18P-W20	WH20P-W20	WH24P-W20	WH30P-W20	WH36P-W40	WH48P-W40	
Rated heating capacity	KW	8.5	14	8.5	14	19	28	40	50	56	66	84	100	132	
Rated power	KW	1.91	3.10	1.90	3.07	4.21	6.19	8.97	11.29	12.44	14.83	18.96	22.42	29.86	
Rated current	A	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	°C	70 °C (default) 28-80 °C (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	2	2	2	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 m³/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 m³/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	810x420x590					1100x840x800			1800x1150x1050				2800x1250x1350	
Wooden case package dimensions(L*W*H)	mm	856x466x752					1146x886x962			1856x1206x1218				2856x1306x1518	
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:

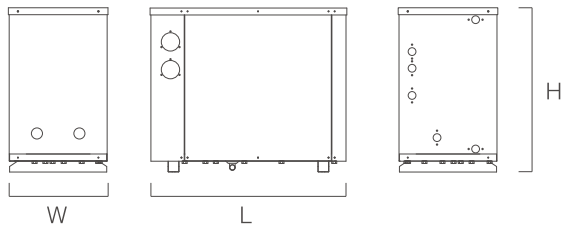
- Hot water heating standard condition: use side initial water temperature 15 °C , end water temperature 55 °C ; heat source side water input temperature 15 °C .
- The above parameters are based on refrigerant R134A, for parameters based on other refrigerant please contact us.
- The above parameters 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(%)

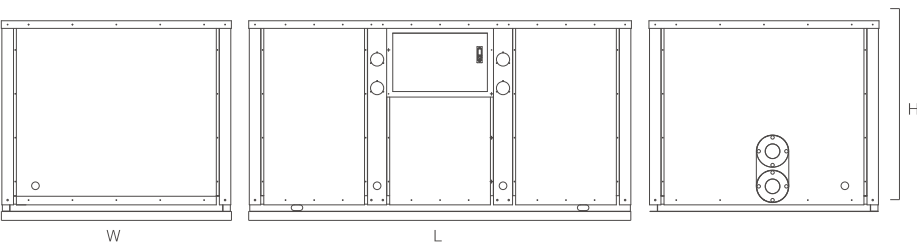
Heat source side water input temperature (°C)	10	12	15	18	20	22	25	30
Heating capacity(%)	84.6	91.0	100.0	105.0	110.0	116.0	124.0	132.6
Power (%)	95.6	98.0	100.0	102.0	105.0	108.0	109.3	110.0
Energy efficiency ratio(COP) (%)	88.5	92.9	100.0	102.9	104.8	107.4	113.4	120.5



Product Dimensions



W02H series	
Model	Dimensions (L x W x H)
WH03Ps-W5	810x420x590
WH05Ps-W5	810x420x590
WH03P-W5	810x420x590
WH05P-W5	810x420x590
WH07P-W5	810x420x590



W02H series	
Model	Dimensions (L x W x H)
WH10P-W10	1100x840x800
WH14P-W10	1100x840x800
WH18P-W20	1800x1150x1050
WH20P-W20	1800x1150x1050
WH24P-W20	1800x1150x1050
WH30P-W20	1800x1150x1050
WH36P-W40	2800x1250x1350
WH48P-W40	2800x1250x1350



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