

HOME USE AIR SOURCE HEAT PUMP WATER HEATER





About Us

Zhejiang CEN New Energy Stock Co., Ltd. was established in year 2001, in the early time, the company mainly produces solar water heater controllers and other related products. In 2009, General Manager Xia Qing decided to transform the product, especially set up the heat pump department. The company began to focus on the production and sales of heat pump water heater products, and with the establishment of the water tank production workshop in 2013, formed a research and development, production and sales system of heat pump control system, heat pump water heater and water tank.

In the solar water heater control system, our company has maintained the top three level in China for a long time. In the field of heat pump water heaters, we started to enter the field of real estate engineering in 2017 and achieved remarkable results. In this field, our household heat pump water heaters Sales ranked second in the province.

In the international market, our products have passed the CE certification of the European Union by TUV, and the sales volume of our products is growing rapidly and steadily at a rate of 20%~30% per year.

In 2017, we successfully listed on the New Third Board and began to officially move into the capital market. And moved into a new factory in the same year, with a total plant area of about 50,000 square meters.

Our GMPI-certified heat pump laboratory can test the unit's capacity from 1HP to 30HP, the minimum test ambient temperature can reach -30 degrees Celsius, and the highest test ambient temperature is 52 degrees Celsius.

Looking forward to the future, we will continue to focus on the broad heat pump field, making our own contribution to energy conservation and environmental protection, providing comfortable hot water for thousands of families.



ISO9001-2015
Quality Management System for Quality Assurance
Certificate No.: ARES/CN/1701019Q



OHSAS18001:2007
Occupation Health Safety Management System
Certificate No.: 12816S20193ROS

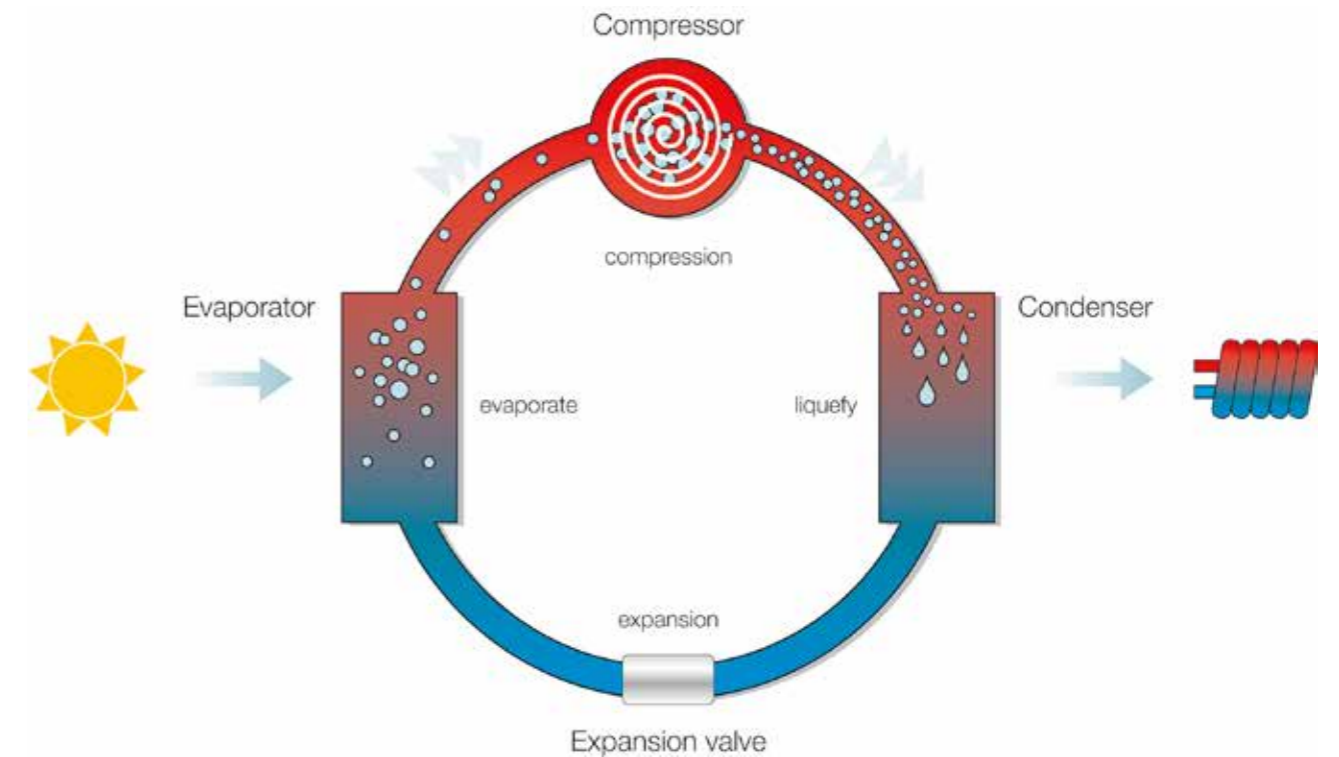


ISO14001-2015
Environmental Management System
Certificate No.: ARES/CN/1706042E



Laboratory issued by GMPI
Certificate No.: RZ-ZL-2017171

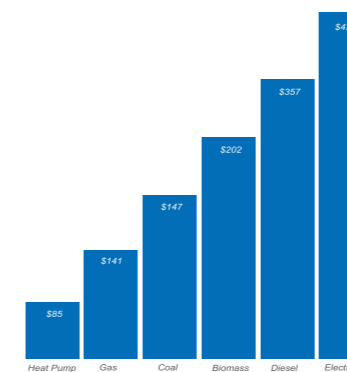
HEAT PUMP WORKING PRINCIPLE



Heat pump water heater extracts energy from the air and uses it to heat water. It uses 1 time power to drive the compressor and brings 4.3 times heat to the water. This is what we called coefficient of performance (COP). With COP up to 4.3.

ENERGY RESOURCE COMPARISON

The data on the following drawing are calculated on the basis of 20hrs/day in 120 days.



Operating Cost Comparison

Items	Heat Pump	Gas	Diesel	Electricity	Coal	Biomass
Calorific Value	860kcal/kWh	8600kcal/L	10200kcal/L	860kcal/kWh	5000kcal/Kg	4000
Unit Price	\$0.1/kWh	\$0.3/m ³	\$0.9/L	\$0.10/kWh	\$0.075/Kg	0.20
Heating Load			200kW			
η	468%	85%	85%	95%	35%	85%
Consumption Per Hour	43kW/h	24m ³ /h	20L/h	211kW/h	98Kg/h	51
Operating Cost Per Day	\$85	\$141	\$357	\$421	\$147	\$202
Operating Cost Per Year	\$10256	\$16941	\$42851	\$50526	\$17691	\$24282
Energy-Saving	/	19.05%	68.00%	72.86%	22.48%	43.52%

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COMFORT SERIES



Circulation water pump built-in.



Wifi function for option(Control by Apps on mobile phone).



High efficiency shell & tube heat exchanger: Adopt high efficiency internal thread copper coil, which heating area is 3.6 times than ordinary smooth coil, larger diameter water loop design to make water flow smoothly, energy efficiency is superior.



Stainless steel 304 material for side cover of finned tube heat exchanger, for all fastener and other important parts, not easy to rust and corrosion, more durable.

GMCC

High quality GMCC rotor compressor, widely used in the field of air conditioners and heat pump water heaters, high quality, long service life and convenient maintenance.



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.



Controller: Adopt famous master chip, ensure stable running. With lot of protection functions: High & low pressure protection, anti-freezing protection, high temperature protection, overload protection, lack phase and reverse phase protection, and so on.



The blue hydrophilic aluminum foil fin heat exchanger adopts cross-type multi-flow path design to make the heat exchange more uniform; the internal thread copper tube design has higher heat transfer efficiency; at the same time, the hydrophilic fins are not easy to form water droplets, Spreading into a uniform water film completely on the surface of fins, eliminates the generation of water bridges, which greatly improves the heat exchange capacity and heat exchange efficiency between the aluminum foil and the flowing air.

R410A

Low ODP refrigerant: R410a.

COMFORT SERIES (HOME USE AIR SOURCE HEAT PUMP WATER HEATER CIRCULATING TYPE)

Model	CKXRS-3.5 IH	CKXRS-5.0 IH	CKXRS-7.0 IH	CKXRS-9.0 IH	
Rated Heating capacity (KW)	3.5	4.8	6.8	8.4	
Rated outlet hot water quantity (L/H)	75	108	150	193	
Outlet water rated temp (°C)	55				
Outlet water max. temp (°C)	60				
Electricity parameter	Rated power (KW)	0.9	1.24	1.71	2.13
	Rated current (A)	4.1	5.6	7.8	11.4
	Power supply	1N 220V~50HZ			
	Max power (KW)	1.28	1.63	2.26	3.01
"Max current (A)"	5.7	7.4	10.4	14.6	
Refrigerant	R410a				
Dimensions mm	850*350*580		910*415*840		
Weight KG	43	51	65	68	
Waterproof grade	IPX4				
Defend electric shock grade	GRADE 1				
Noise Db	≅53Db		≅55Db		
Compressor	GMCC Rotor type				

Stainless steel pressurized water tank specifications

Specifications	150L	200L	300L	500L
Pressurized Water Tank with Safety Valve				
Pipe size (mm)	DN15		DN20	
Water Tank Size	φ480 x 1394	φ520 x 1543	φ580 x 1764	φ700 x 1835
Installation	Floor Standing Type			
Concurrent User	3-4 persons	4-5 persons	6-8 persons	10-13 persons

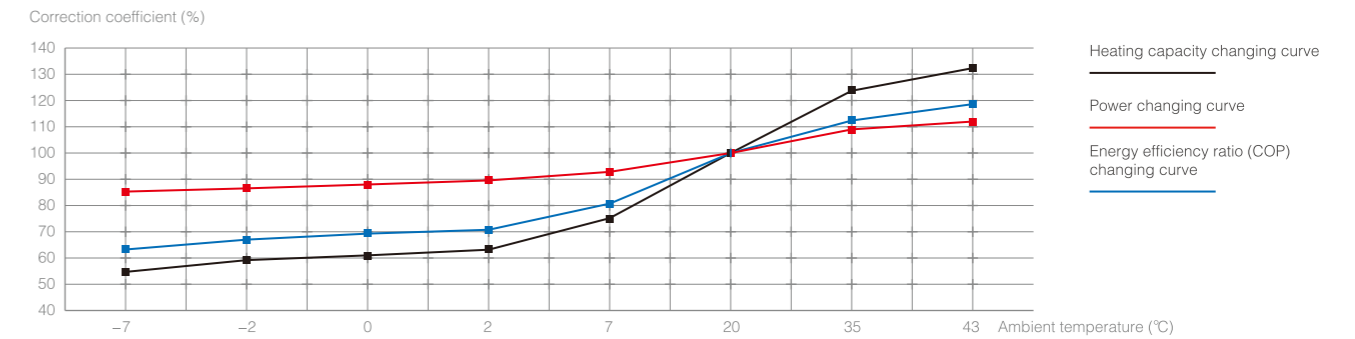
Remarks:

1. Testing condition:use side initial water temperature:15°C,end water temperature 55°C , dry-bulb temperature 20°C , wet-bulb temperature 15°C .
2. The above model is our basic type,the final product may have some differences from it.

HOT WATER HEATING PERFORMANCE CORRECTION COEFFICIENT (%)

Heat source side water input temperature (°C)	-7	-2	0	2	7	20	35	43
Heating capacity (%)	55	59	63	63	75	100	124	133
Power (%)	86	87	89.6	89.6	93	100	109	112
Energy efficiency ratio (COP) (%)	64.0	67.8	70.3	70.3	80.6	100.0	113.8	118.8

HEATING PERFORMANCE CORRECTION COEFFICIENT CHANGING CURVE



APPLICATIONS SKETCH

