



HOME USE AIR SOURCE HEAT PUMP WATER HEATER



DOMESTIC / HOUSE HOLD HEAT PUMPS

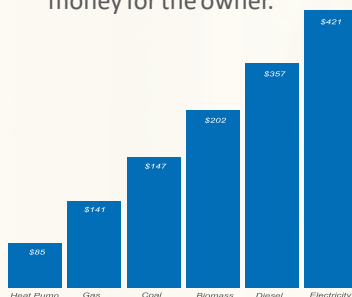
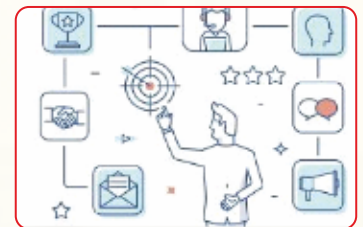


The heat pump water heater is an integrated system that utilizes the heat pump technology to provide more efficient way to heat water with electricity. It pulls heat from surrounding air and deposits the heat into the tank. The end result is very efficient production of hot water with cooler and dehumidified air as a welcome by-product.

The Domestic heat pump water heater works great in applications where the need for hot water and space cooling occurs simultaneously. Both outputs are utilized efficiently and interchangeably to ensure maximum energy cost savings and the shortest payback periods. Applications requiring space cooling and significant hot water usage will maximize energy savings. Best of all, heat pump heaters are three times more efficient than standard electric water heaters and up to five times more efficient than conventional gas water heaters.

PRODUCT FEATURES :

1. Absorbs Environment heat and transfers it to the water, at the same time cooling and dehumidifying the ambient air.
2. "Environmental-friendly" R-410a refrigerant.
3. Multiple operating modes maximize efficiency & meet increasing hot water needs.
4. High capacity storage tank enables heat pump to operate more frequently than the heating elements. This provides higher efficiency & cover operating costs, saving money for the owner.



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%

OTHER BENEFITS OF HEAT PUMP.

- An energy saving device that saves energy cost by over 65%.
- Allowed 80% DEPRECIATION under Income-tax Act.1961
- Easy to install and occupies less floor space.
- Environment-friendly as there is no carbon emission.
- Low maintenance cost.
- Heat pump system can provide hot water temperature up to 80°C.
- Caters to any capacity needs.
- Heat Pump is a fully automatic machine.

APPLICATIONS

- Homes
- Villas
- Farm House
- Bungalows

WHY ARE HEAT PUMP WATER HEATERS AN ENVIRONMENTALLY FRIENDLY CHOICE:

- High efficiency with coefficient of performance (COP) up to 4.2.
- No fossil fuels are used or burned at the source.
- Ozone layer-friendly, thanks to the R-410a refrigerant.
- Uses less electricity than standard electric water heaters.
- Taps into heat sources typically discarded by other units for peak efficiency.



Steamgen & Control Systems
Pioneer in Steaming, Heating & Controlling

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COMFORT SERIES HEAT PUMPS

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

Pressurized Water Tank with Safety Valve

Specifications	150L	200L	300L	500L
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:

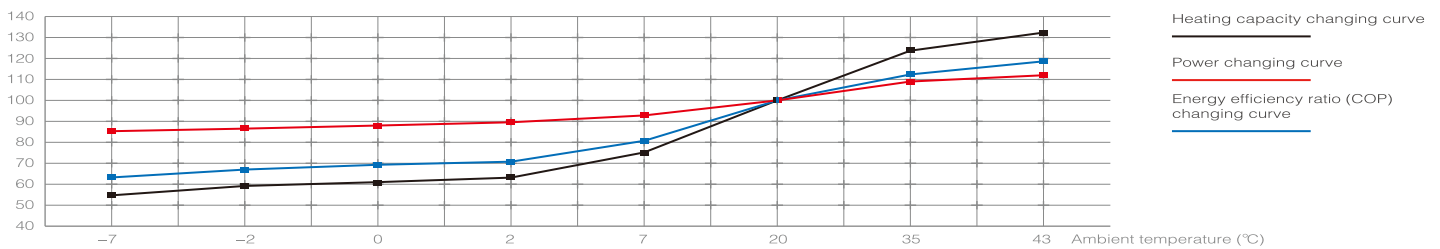
1. Testing condition:use side initial water temperature:15°C,end water temperature 55°C , dry-bulb temperature 20°C , wet-bulb temperature 15°C .
2. The above model is our basic type,the final product may have some differences from it.

HOT WATER HEATING PERFORMANCE CORRECTION COEFFICIENT (%)

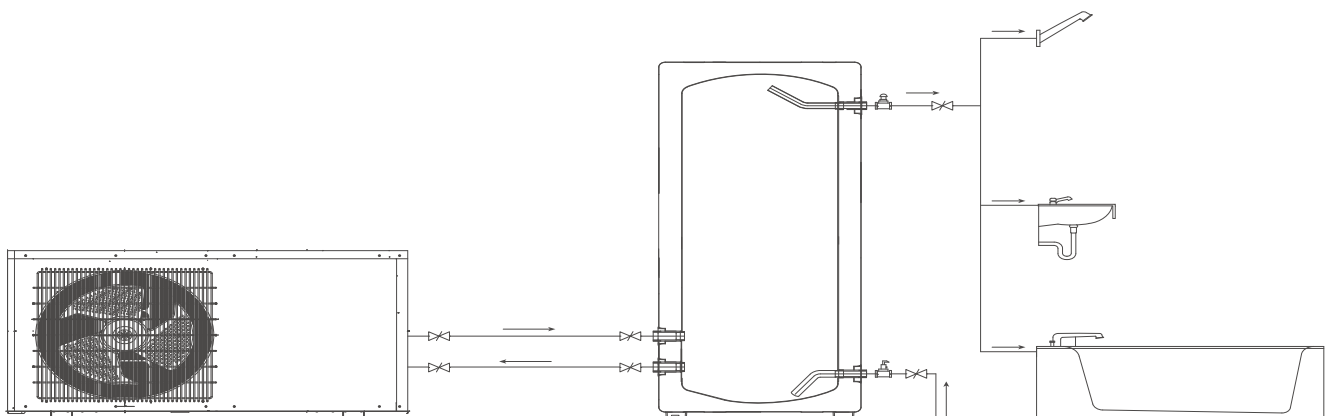
Heat source side water input temperature (°C)	-7	-2	0	2	7	20	35	43
Heating capacity (%)	55	59	63	63	75	100	124	133
Power (%)	86	87	89.6	89.6	93	100	109	112
Energy efficiency ratio (COP) (%)	64.0	67.8	70.3	70.3	80.6	100.0	113.8	118.8

HEATING PERFORMANCE CORRECTION COEFFICIENT CHANGING CURVE

Correction coefficient (%)



APPLICATIONS SKETCH



COMFORT SERIES HEAT PUMPS



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.

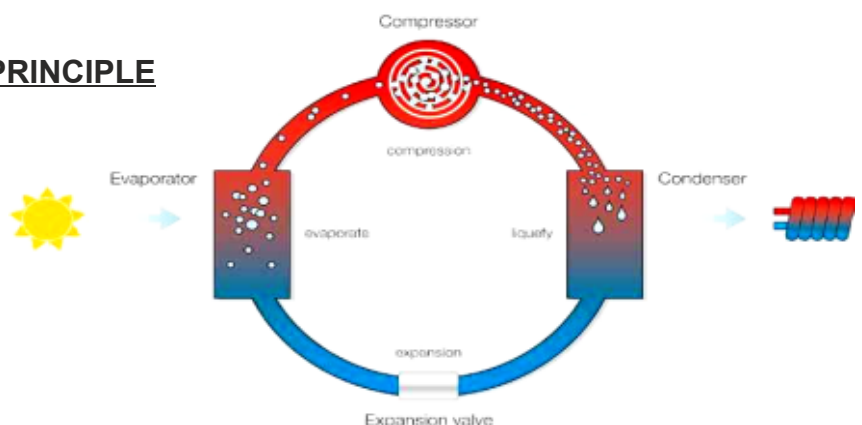


The blue hydrophilic aluminum foil fin heat exchanger adopts cross-type multi-flow path design to make the heat exchange more uniform; the internal thread copper tube design has higher heat transfer efficiency; at the same time, the hydrophilic fins are not easy to form water droplets, Spreading into 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.

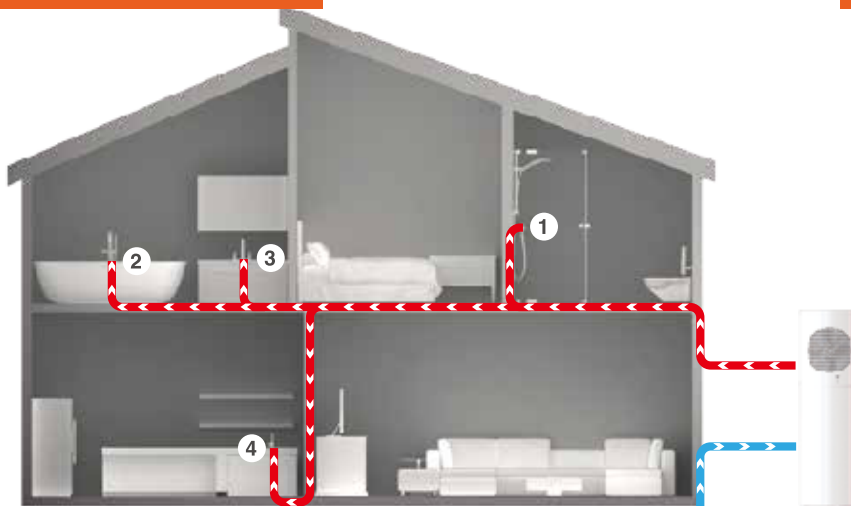
HEAT PUMP WORKING PRINCIPLE



NANO SERIES HEAT PUMPS

ALL IN ONE HEAT PUMP WATER HEATER		CND-HWYF-CY01-20200602		
Model	CD18M-150	CD18M-200	CD25Z-150	CD25Z-200
Power supply	220V~/50Hz, 1 phase			
Rated heating capacity(W)	1800		2500	
Rated outlet hot water quantity (L/h)	39		54	
Rated power (W)	487		695	
Rated current (A)	2.22		3.21	
Max power (W)	2200		2500	
Max current (A)	10		11.4	
Electric heater (W)	1500 (1500~2500 for option)			
COP	3.7		3.5	
Rated water output temp.(℃)	55		55	
Refrigerant/Quantity	R134A/520g		R410A/650g	
Waterproof grade	≤47		≤48	
Noise [dB(A)]	IPX4			
Net weight (kg)	56	62	56	62
Unit dimension (mm)	Φ520×1780	Φ520×2088	Φ520×1780	Φ520×2088
Inner tank diameter(mm)	Φ420	Φ420	Φ420	Φ420
Nominal capacity (L)	150	200	150	200
Rated working pressure of water tank	0.7MPa			
Water outlet/inlet pipe size	DN15			
Concurrent user	3~4 persons	4~5 persons	3~4 persons	4~5 persons

APPLICATION SKETCH



- ① Shower hot water ② Bath hot water ③ Washing hot water ④ Kitchen hot water

INSIDE STRUCTURE



NANO SERIES HEAT PUMPS

Easy installation:

1. Leakage protector with plug, plug directly into the socket to power on;
2. The external thread inlet and outlet pipes can be directly connected to the hot water system at home.

As long as you do the above two steps, you can use the heat pump to make domestic hot water normally.



Multiple protection:

The heat pump unit control system has its own high-temperature and high-pressure protection, high current protection, over-temperature protection, automatic defrosting and other functions.



Electric heater:

Electric heater has been installed in the water tank. When the weather is cold, the heat pump unit heats slowly, and the electric heating automatically turns on for fast heating; The system has a one-button sterilization function, which uses electric heater to heat the water to 70 degrees and keep 3 minutes to eliminate Legionella.



Control panel:

The simple and easy-to-operate LCD panel fully meets household needs.



Cheap and good quality heat pump unit:

STEAMGEN not only has heat pump production workshop, but also controller production workshop and water tank production workshop. It not only produces heat pump heads, but also produces control systems and water tanks. At the same time, combined with the advantages of India's huge real estate supporting market, the cost of the unit is controlled to the lowest in the industry, while ensuring the reliable operation of the unit.



Water tank introduction:

High-quality stainless steel 304 water tank, built-in stainless steel 316L coil, built-in magnesium rod, pressure release valve, negative pressure valve & electric heater with thermal protection, safe and reliable, long life.

The design is reasonable, and the position of each component, especially the water tank temperature sensor, is reasonable, which ensures the stability of the water temperature and more comfortable bathing.



DOMESTIC / HOUSE HOLD HEAT PUMPS





FOR PRODUCT ORDERING

Product Name	Product Code	Description	Quantity	Price (INR/USD)

STEAMGEN & CONTROL SYSTEMS



Office : K-166, Sector-5, DSIIIDC, Bawana, New Delhi-110039, India

Works : Plot No. 5, KH. 15/12/2, Laxmi Park, Phase-II, Ranhola Ext., Nangloi, New Delhi - 110041, India



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