



# Ecosol Renewables Pvt. Ltd.



# Our Company

Ecosol Renewables Pvt. Ltd (ERPL) is a leading manufacturers, produces high efficiency heat pump systems. (High coefficient of performance) Established in financial year 2017 with a goal of developing energy saving heat pump green technology while providing the highest standard of comfort and safety, Nirmeeti Energy Systems specializes in the Design of air source heat pump water heating system, swimming pool heating system, De super heater, Reversible heat pump systems, Air dryer, Solar water heating systems, Solar air condition systems.

Ecosol Renewables Pvt. Ltd.(ERPL) is here to provide business owners with the opportunity to do their bit for the environment as well as save money, by installing energy saving products. We believe in the importance of reducing carbon emissions to protect the environment, but want to achieve this by also enabling our client's save on running costs.

Energy price are soaring and NES have understood that business could be making larger profits by cutting down on their energy costs. That's why NES products experience such high demand. Together we can fight climate change, and give the world a chance for a brighter future.

## Our Products

Our product have the best quality and come with certification for its application. With a variety of energy mix options, we specialize in providing hybrid solution in hot water industry. We have in-house manufacturing of hot water storage vessels or tanks, with specialty in ceramic lining.

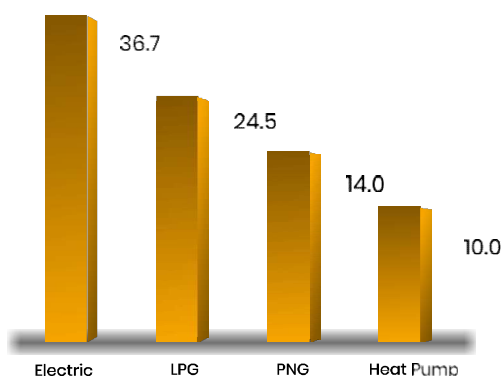
### Our Product range includes :

- » Heat pumps
- » Solar Water Heaters
- » Hot water storage Tanks
- » Swimming Pool Heat Pump

### Heat Pump Type

- » Monoblock Heat Pump
- » Air to water heat pump
- » Water to water heat pump
- » Swimming pool heat pump
- » High temperature heat pump
- » Dryer for air heating

## Operating Cost per 100 Liters of hot water

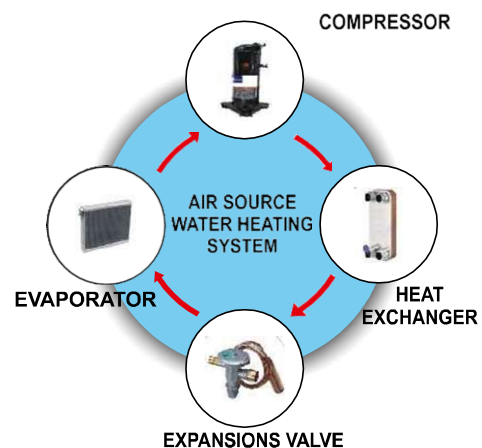


## Applications

- » Hot water for bathing
- » Swimming pool heating
- » Low ambient temperature heating
- » Floor heating or cooling
- » Hot air drying
- » Industrial Heating
- » Relative Humidity in clean room
- » Laundry water heating for washing
- » Kitchen hot water heating for cleaning
- » Hot water for cooking in kitchen
- » Centralized heating solution
- » Heating and cooling together
- » Hot water and cold water simultaneously

### How Does a Heat Pump Work?

Heat pumps transfer heat by circulating a substance called a refrigerant through a cycle of evaporation and condensation. A compressor pumps the refrigerant between two heat exchanger coils. In one coil, the refrigerant is evaporated at low pressure and absorbs heat from its surroundings. The refrigerant is then compressed en route to the other coil, where it condenses at high pressure. At this point, it releases the heat it absorbed, earlier in the cycle.



## Monoblock Heat Pump

### Description

Specifically designed for Indian conditions, these heat pumps come with inbuilt wilo water circulation pump so we only need to connect the pipes and plug the machine. These range of heat pumps come with rotary compressor for high life.

### Operating Cost

- » Reduced water heating costs upto 75%
- » Quick payback & return on investment
- » Reliable hot water round the year
- » Longest product life
- » Reduced carbon emissions
- » Silent operation
- » Negligible maintenance costs

## Commercial Heat Pump

### Description

This series is splendid for central heating and cooling with fan coil units, which is suitable for villas, hotels, factories, schools, salons, leisure centers, etc.

### Features

- » Scroll compressor
- » Stainless steel brazing plate heat exchanger
- » Expansion valve
- » 4-way valve
- » Automatic defrosting
- » Super intelligence
- » Low noise and vibration
- » Stable running, safe and reliable

## Monoblock & Commercial Air Source Heat Pump

Model	Unit	NES-AH-04M	NES-AH-07M	NES-AH-10M	NES-AH-15U	NES-AH-19U	NES-AH-22U	NES-AH-28U	NES-AH-37U	NES-AH-43V	NES-AH-50V
HP		1 HP	2 HP	2.5 HP	4 HP	5 HP	6 HP	7 HP	10 HP	12 HP	15 HP
Rated heating Capacity	KW	3.5	7.4	9.8	15	19	22	25	37	43	51
COP		3.8	3.8	3.8	3.8	4	4	4	4	4.18	4.2
Rated hot water Output	L/H	75	160	210	321	398	473	537	795	924	1096
Rated outlet water temperature	°C	50				55					
Max outlet water temperature	°C	55				60					
Rated Input Power	KW	0.85	1.9	2.5	3.7	4.4	5.3	6	8.8	10.3	12.1
Rated Current	(A)	4.2	8.9	11.4	7.2	8.4	10.1	11.4	16.7	19.5	23.2
Power Supply		220V/50Hz/1Ph				380V/50Hz/3Ph					
Hot water Circulation Pump		Wilo circulation pump built in				wilo monoblock / self priming pump					
Refrigerant		R407C / R417A / R410A									
Working ambient temperature	°C	(-7) ~ (43)									
Noise	dB(A)	≤52	≤52	≤53	≤59	≤62	≤63	≤63	≤65	≤65	≤65
Pipe Size	Inch	3/4"			1"	1"	1"	1"	1-1/2"	1-1/2"	1-1/2"
Dimensions (LWH)	mm	1030 * 430 * 670			600 * 800 * 950		810 * 810 * 950		850 * 850 * 1050		1450 * 705 * 1375
Weight		52	66	80	95	137	148	170	190	294	345
IP grade (Level of protection)		IPX4									
Anti-electric shock rate		I									
Metel Plate						Galvanized steel/Spray/white					
Compressor		Highly rotary				Emerson / Panasonic Scroll					
Number of Compressor	Nos.	1	1	1	1	1	1	1	1	2	2
Condensor		High efficiency tube in shell heat exchanger				Tube in tube		Plate Heat Exchanger			
evaporator		Copper tube & aluminum blue fins type									
Expansion valve		Thermostatic / Capillary				Thermostatic expansion valve					
Product Safety		High pressure safety, low pressure safety, water flow failure safety, under voltage safety, over voltage safety, under load safety, over load safety, phase squence, unbalance, reverse safety, day block mode, suction & discharge temperature sensing, water inlet & water outlet temperature sensing, Auto defrost safety									
Working Conditions		Dry bulb temperature 20°C, Wet bulb temperature 15°C, Inlet water temperature 15°C, Outlet water temperature 55°C									
Product Homologation		CE Mark & ISO Certified									

## High Temperature Heat Pump :

(Commercial & Industrial Use)

### Features

- » Water outlet temperature up to 75/80°C
- » Capacity available up to 200 kw
- » Higher capacity models available on request
- » Wide ambient range -7 to 45°C
- » Environment friendly green refrigerant
- » Top brand scroll / screw compressor
- » Modbus connectivity
- » Protective system with thermostat, pressure switch & overload protector
- » Flow monitoring

## High Temperature Heat Pump

Model	Unit	NES-HT-09	NES-HT-10U	NES-HT-13U	NES-HT-14U	NES-HT-19U	NES-HT-20U	NES-HT-28U	NES-HT-30U	NES-HT-38U	NES-HT-42V	NES-HT-50V
Rated heating Capacity	KW	7.5	9.8	12.5	14	16	21	25	30	36	42	50
COP		2.87	2.86	2.86	2.85	2.85	2.85	2.85	2.85	2.86	2.85	2.85
Water Flow	L/H	1433	1650	2388	2675	3057	6019	7153	8583	10300	12038	14300
Rated hot water Output	L/H	107	135	179	201	229	301	357	429	515	600	714
Rated outlet water temperature	°C	75										
Max outlet water temperature	°C	80										
Rated Input Power	KW	2.64	4.22	4.67	5.82	6.29	7.87	9.98	12.05	14.6	15.6	20.5
Rated Current	(A)	13.5	7.18	8.9	9.9	11.5	13.73	19.4	21.18	26.98	27.5	40
Power Supply		220V/50Hz/1Ph				380V/50Hz/3Ph						
Hot water Circulation Pump		wilo monoblock / self priming pump										
Refrigerant		R134A										
Working ambient temperature	°C	(-7) ~ (43)										
Noise	dB(A)	≤52	≤58	≤58	≤58	≤59	≤62	≤63	≤63	≤65	≤65	≤65
Pipe Size	mm	25										
Dimensions (LWH)	mm	600 * 800 * 950			810 * 810 * 1055			850 * 850 * 1050			1500 * 805 * 1515	
Weight		112	125	164	174	180	192	210	235	258	294	345
IP grade (Level of protection)		IPX4										
Anti-electric shock rate		I										
Metel Plate		Galvanized steel/Spray/white										
Compressor		Emerson / Panasonic Scroll										
Number of Compressor	Nos.	1	1	1	1	1	1	1	1	1	2	2
Condensor		Tube in tube / PHE										
evaporator		Copper tube & aluminum blue fins type										
Expansion valve		Thermostatic / Capillary					Thermostatic expansion valve					
Product Safety		High pressure safety, low pressure safety, water flow failure safety, under voltage safety, over voltage safety, under load safety, over load safety, phase squence, unbalance, reverse safety, day block mode, suction & discharge temperature sensing, water inlet & water outlet temperature sensing, Auto defrost safety										
Product Homologation		CE Mark & ISO Certified										



**Ecosol Renewables Pvt. Ltd.**

**Flat No. 1, Neelkanth Apts. Mahesh Society**

**Bibwewadi**

**PUNE INDIA**

**88888 21712 / 98902 62819**

**: ecosolrenewables@gmail.com**