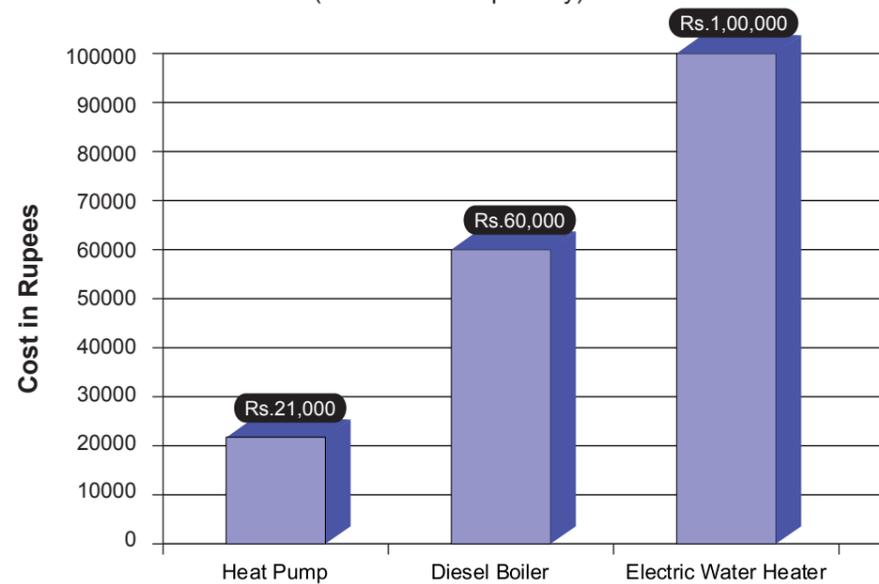


Product Specifications

Model		VCH 10 i	VCH 20 i
Heating Capacity	kW	11.4	19.3
	Btu/h	38900	65850
COP		4.67	4.62
Rated Hot Water (55°C) Output Volume	L/h	245	415
Rated Power input	kW	2.7	4.5
Rated input current	A	10.9	7.41
Power Supply	V/Ph/Hz	220~240V/1PH/50Hz	400~440V/3PH/50Hz
Rated output water temperature	°C	55	
Maximum output water temperature	°C	60	
Ambient Temperature Range	°C	(-10°C~43°C)	
Fan type		Low noise axial fan	
Fan direction		Vertical Discharge	
Noise level	DBA	≤56	
Compressor		scroll [®] 1	
Cabinet		Powder Coated	
Refrigerant		R407C	
Product size	mm	710 x 710 x 830	810 x 810 x 1060
Packing	mm	810 x 800 x 990	910 x 900 x 1200
Net weight	Kg	105	140
Gross weight	Kg	120	160
Hot Water Storage Tank		Available in 500 L & above Pressure & Non-pressure models	

ANNUAL HEATING EXPENSES

(for 1000 Litres per day)



Heat Pump Water Heaters

Hot water all day long at the lowest operating cost

Commercial Range



VENUS HOME APPLIANCES (P) LTD.

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P/N - 600072 - 11 / 2015



VENUS HEAT PUMPS

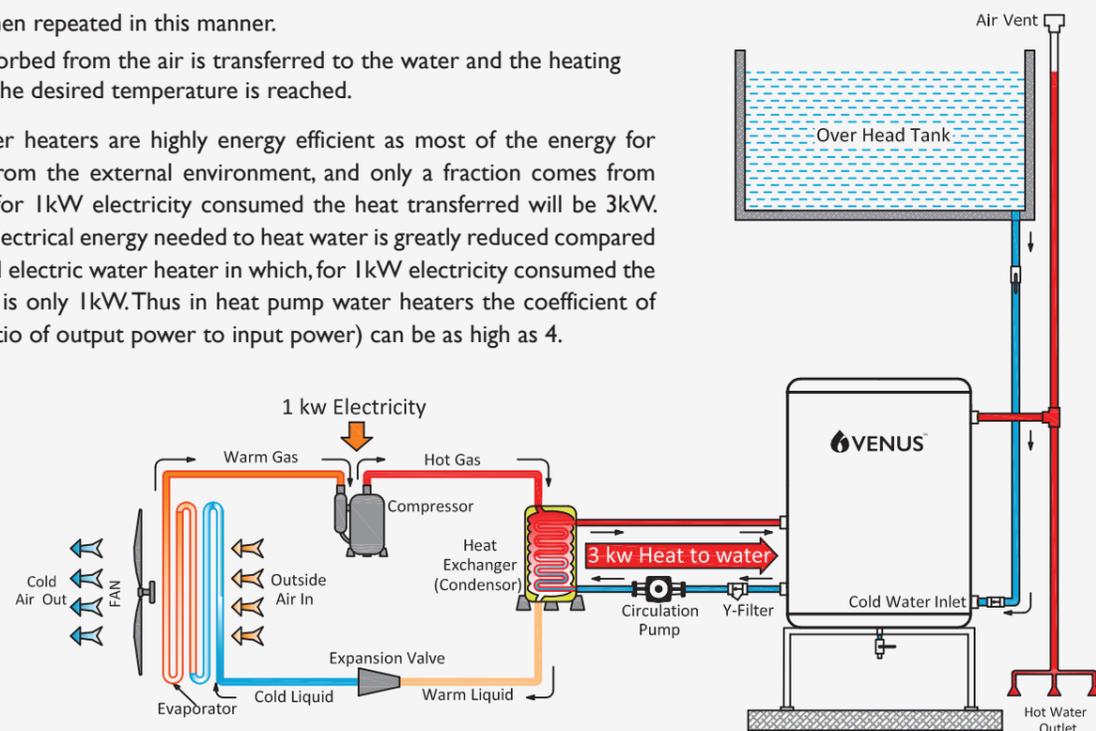
Venus introduces Heat Pump Water Heaters for the first time in India. Using renewable energy heat sources from the ambient air to heat water, these heaters can provide hot water round-the-clock and throughout the year in an energy-efficient and affordable way. Venus Heat Pump Water Heaters are the right solution for commercial hot water applications.

HOW DOES A HEAT PUMP WORK

Major components of a heat pump water heater include a compressor, a refrigerant, two heat exchangers (a condenser and an evaporator) and an expansion valve.

- The operation begins with air being forced through an evaporator which contains a liquid refrigerant, with the help of a fan.
- This refrigerant evaporates to a gas and extracts heat from the ambient air.
- The warm gaseous refrigerant then passes through the compressor, which increases its pressure and it becomes a hot gas.
- This hot gas enters a heat exchanger (condenser) and transfers its heat to the water flowing from a storage tank.
- The refrigerant cools down in the condenser and becomes a warm liquid.
- It then passes through an expansion valve and becomes a cool liquid and enters the evaporator again.
- The cycle is then repeated in this manner.
- Thus heat absorbed from the air is transferred to the water and the heating continues till the desired temperature is reached.

Heat pump water heaters are highly energy efficient as most of the energy for heating comes from the external environment, and only a fraction comes from electricity. Thus for 1kW electricity consumed the heat transferred will be 3kW. The amount of electrical energy needed to heat water is greatly reduced compared to a conventional electric water heater in which, for 1kW electricity consumed the heat transferred is only 1kW. Thus in heat pump water heaters the coefficient of performance (ratio of output power to input power) can be as high as 4.



ADVANTAGES OF A HEAT PUMP WATER HEATER

- Very low operating cost - 80% of an Electric Water Heater. Lower running cost than boilers (75% lower) or solar water heaters (25% lower).
- High energy efficiency – Coefficient of performance (ratio of output power to input power) can be as high as 4.
- Compact size and ease of installation. Can be installed in any convenient location.
- Continuous hot water supply - Uninterrupted operation during night time, on rainy days and even on cold days. Works in any kind of weather and all seasons.
- Can be scaled to meet requirements from individual villas to large commercial installations.
- Reliable and durable - Can last for years with little or no maintenance.
- Simple Operation - Temperature and time options can be preset on the intelligent digital controller.

COMMERCIAL RANGE

Uses heat from the air to heat water and saves energy as much as 60-80%, when compared to oil fired boilers or electric water heaters. It is ideal for commercial applications like in hotels, hospitals, spas, hostels etc. where hot water is needed in large volumes. This range saves on operating costs by tapping into the heat in the air in a safe and affordable way. You can satisfy your customers while saving on your energy bills.

- High efficiency and energy saving
- Eco-friendly technology - using R407C refrigerant
- Intelligent digital controller for precise control and easy operation
- Wide temperature range operation, from -10°C to 43°C. Can work at night as well as on cloudy or rainy days just like on sunny days
- Can be scaled to meet any requirement of hot water - 500 L & above.
- American Copeland compressor with high efficiency heat exchanger - reliable and durable
- Easy to install. Just need to connect the pipelines and electrical connections
- Occupies very little space and can be installed on the terrace or roof
- Heat input as low as 2.7 kW; delivers heat output up to 11.4 kW (for VCH 10i model)
- Long life and corrosion-resistant cabinet to withstand severe climates
- Combined with a circulation pump and a storage tank, it can deliver hot water in seconds anywhere in the premises

APPLICATIONS

Commercial range heat pump water heaters can be used at Hotels, Hospitals, Swimming Pools, Spas etc.

KEY FEATURES/MAIN COMPONENTS



Hot Water Tank - 500 L & above

Heat Pump - VCH 10i / 20i