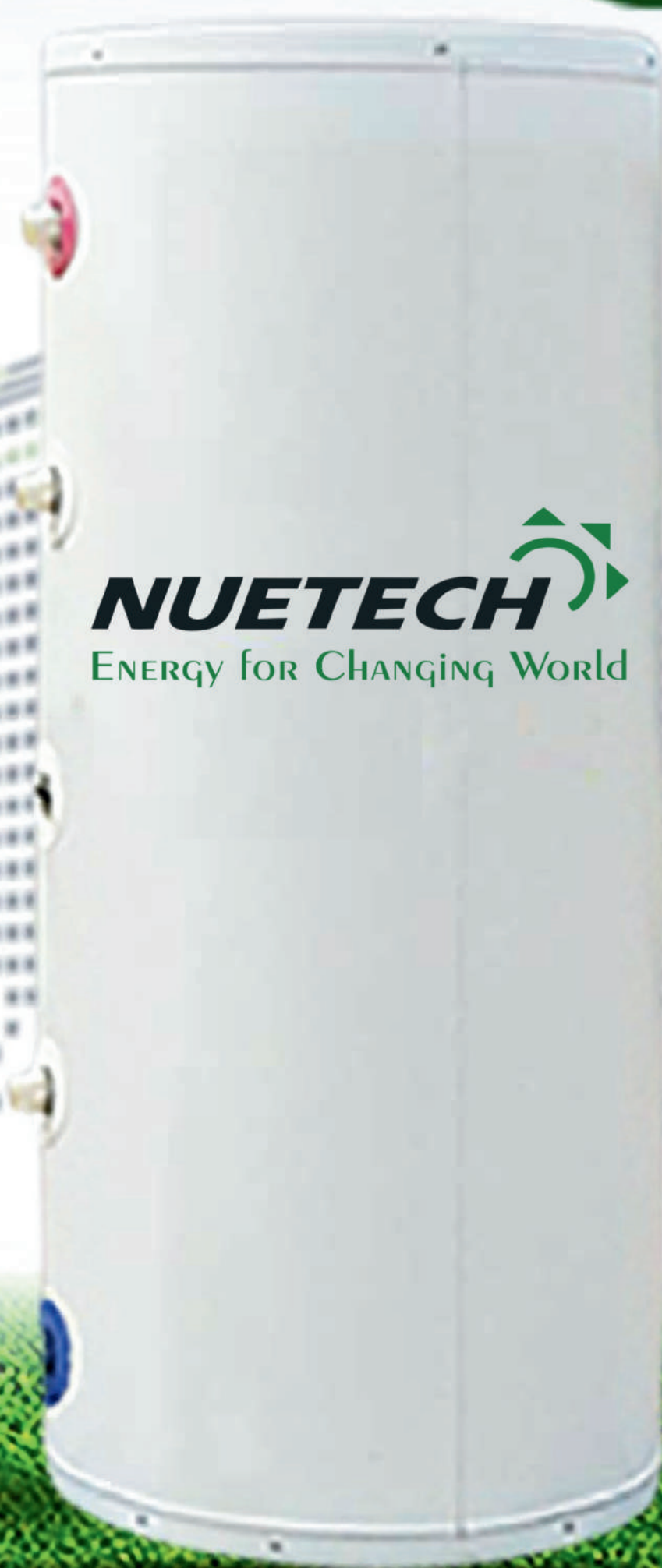


NUETECH
ENERGY FOR CHANGING WORLD

HEAT PUMP WATER HEATER

24/7 - 365 DAYS HOT WATER
SOLUTION WITH LOWEST
OPERATING COST



● AIR SOURCE HEAT PUMP WATER HEATER

Heat Pump water heaters use electricity to move heat from one place to another instead of generating heat directly. Therefore, they can be two to three times more energy efficient than conventional electric resistance water heaters. To move the heat, heat pumps work like a refrigerator in reverse.

ADVANTAGES

- 24/7 Hot Water and efficiently Works in all Climates
- Consumes only 25% electricity compared to Geysers and other electric heaters
- Low Operating cost
- Less space required for installation

APPLICATIONS

- Hospitals
- Hostels and PG
- Residential, Villas, Lodges and Resorts

Nuetech Heat pump water heaters are extremely energy efficient and can achieve COPs between 3-4 meaning they can produce 3-4kW of heat for every 1kW consumed.

DIFFERENT MODELS OF NUETECH HEAT PUMP

- DOMESTIC HEAT PUMP
- COMMERCIAL HEAT PUMP
- SOLAR INTEGRATED HEAT PUMP
- SWIMMING POOL HEAT PUMP
- HIGH TEMPERATURE HEAT PUMP



UNIQUE BENEFITS OF HEAT PUMP WATER HEATER

1) Heat Pump Deliver Lower CO₂ emission

When electricity is generated by renewable resources like Solar, wind & hydro then the heat pump is 100% renewable and CO₂ - neutral.



2) Energy efficiency

Consumes 25% of electricity only compared to

3) Weather Compensation

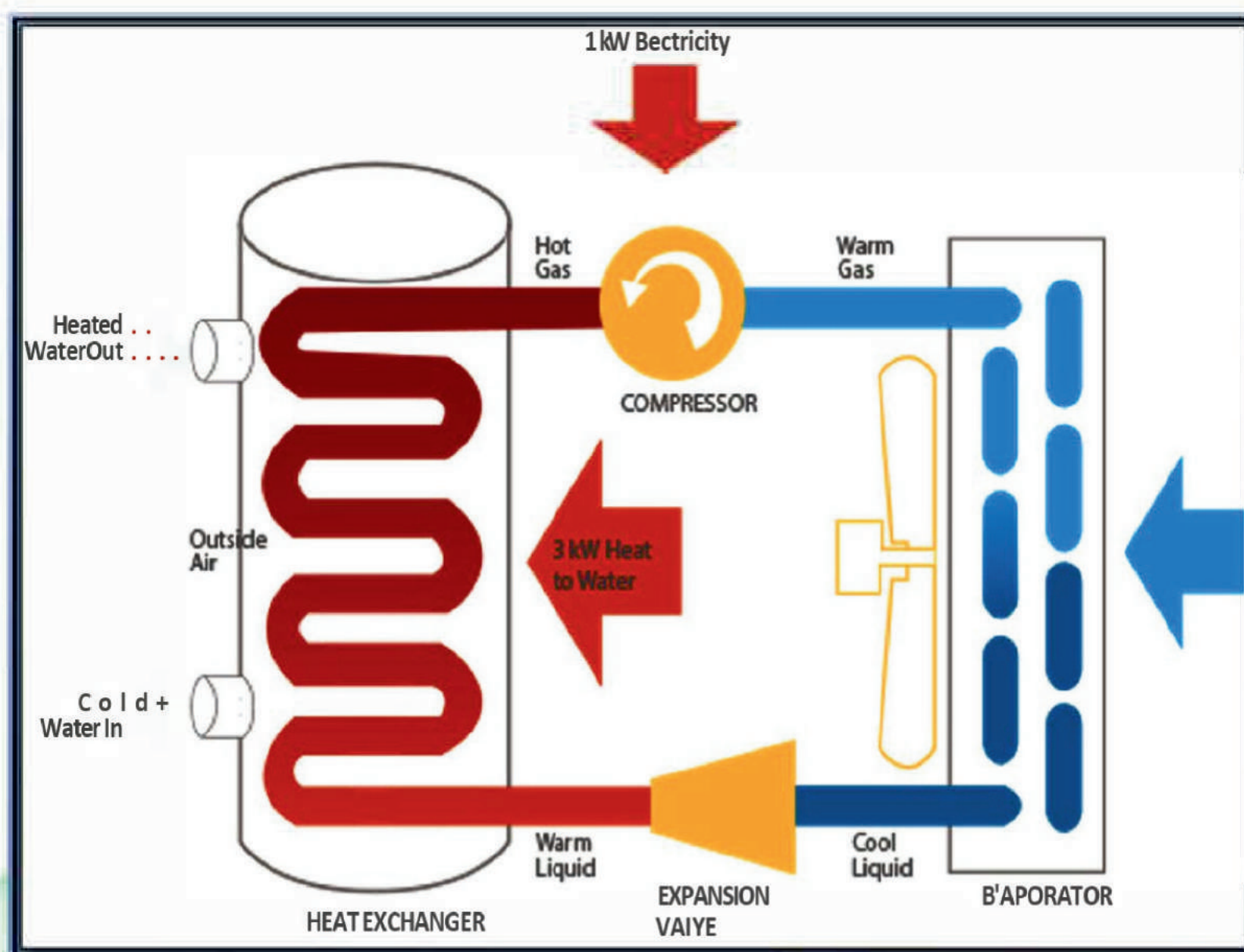
Works in all weather condition throughout the year(365 days)



4) Low Maintenance

Heat pump water heater offers the cheapest available kW/h for hot water solution.

HOW DOES A HEAT PUMP WATER HEATER WORK?



MAJOR SYSTEM COMPONENTS

The following are the major systems, sub systems & components that are used for heat pump

- 1) Evaporator
- 2) Refrigerant
- 3) Compressor
- 4) Condenser
- 5) Expansion Valve

Working:

- 1) An operation begins with air being forced through an "EVAPORATOR" which contains a liquid "REFRIGERANT", with the help of fan.
- 2) The refrigerant evaporates to a gas and extracts heat from the ambient air.
- 3) The warm gaseous refrigerant then passes through the compressor, which increases its pressure and it becomes a hot gas.
- 4) This hot gas enters a heat exchanger (condenser) and transfers its heat to the water inside a storage tank.
- 5) The refrigerant cools down in the condenser during this process and becomes a warm liquid.
- 6) It then passes through an expansion valve and becomes a cool liquid and enters the evaporator again.

HEAT PUMP COMPARISON WITH COMPETING TECHNOLOGIES

Heat pump technology scores across all parameters

| Parameters | Heat Pump | Solar Water Heater | Electric Geyser | LPG Fired | Diesel |
|-----------------------------------|------------|--------------------|-----------------|-----------|-----------|
| Energy Savings w.r.t Conventional | Up to 75% | 50-75% | N.A | N.A | N.A |
| Climate Independent | Yes | No | Yes | Yes | Yes |
| Efficiency | Up to 400% | Up to 95% | Up to 95% | Up to 80% | Up to 80% |
| Environment Friendly | Yes | Yes | No | No | No |
| Safety | Yes | Yes | Moderate | No | Moderate |

Description

TECHNICAL SPECIFICATIONS

| Model | SHP4 | SHP5 | SHP7 | SHP11 | SHP19 |
|--------------------------------|----------|----------|----------|----------|----------|
| Rated Heating Capacity (kW) | 3.5 | 5.3 | 7.6 | 11.5 | 19 |
| Rated input power (kW) | 0.9 | 1.34 | 1.87 | 2.95 | 4.8 |
| COP | 3.8 | 3.96 | 4.06 | 3.9 | 3.96 |
| Power supply (V/Hz/Ph) | 220/50/1 | 220/50/1 | 220/50/1 | 380/50/3 | 380/50/3 |
| Refrigerant | R410A | R410A | R410A | R407C | R407C |
| Rated heated water output(L/H) | 100 | 150 | 215 | 280 | 500 |
| Rated outlet water temp (°C) | 55 | 55 | 55 | 55 | 55 |



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