

# Smart Solutions For Smart Living





Brio Energy developed the range of Heat Pumps in order to emulate with the highest sustainability & efficiency for the heating requirements of Domestic, Commercial Establishments & Industries using renewable energy directly from the nature such as Air or Water.

## Heat... Harvest... Don't Reject it...

Combining comfort with maximised efficiency is greatest challenge...

### Why the heat pump is the best solution for comfort and environment

#### Less 75 % Energy Cost

The precise component selection, smart control, monitoring system and R134A refrigerants ensures the highest level of inter-component efficiency. Resulting into energy saving almost up to 75 % than the traditional water heating system

#### Renewable Energy Source

It uses heat energy from the sun which is available abundantly in the surroundings making the heat pump the most efficient renewable source as per the directives from the renewable energy experts.

#### Cutting Edge Technology

Cool Heat complies with applicable standards for preserving the ozone layer (ODP - Ozone Depletion Potential) and limiting the greenhouse effect (GWP - Global Warming Potential)

#### Less 60% Emission in the Air

Heat pump technology takes 75% of energy directly from the environment and uses only 25% electric energy. This ensures 60% less CO<sub>2</sub> emission than any of the traditional systems.

#### Comfort Throughout the year

Heat pump is designed considering the diverse climatic conditions. The Cool Heat design maximises level of comfort of Cooling and Heating irrespective of ambient temperatures.

#### Smart Investment for your Property

It can fit in easily into new property as well as can be retrofitted in the existing property enhancing the energy efficiency of the building for today and tomorrow.

#### Growing Attention to Comfort

To ensure the demand for ideal Temperature, Humidity and Air quality to the consumers throughout the year, it needs adequate solutions without compromising the comfort norms.

#### Simultaneous Heating and Cooling

At times there are both Heating and Cooling requirements simultaneously in an establishment from different area of operations. Such applications are increasing day by day.

#### Challenging Energy Efficiency and Sustainability Targets

In the scenario of increasing shortage of Energy and it's continuously increasing costs, the regulatory norms, concerns about environ impact are getting appreciated. It is need of the time for consumers to adapt renewable sources of energy by keeping lower capital investment.

#### Demanding Architectural Solutions

Innovative concepts and a systematic quest for excellence, pushing the designers to the limit, in order to ensure compact and reliable solutions, without compromising on the aesthetics.

#### Plug and Play Operations

Simplified modular construction of the unit significantly reduces on site operations ensures hassle free installations compared to traditions hot water systems. Hence savings on time and cost.





# Cool Heat Series

## Air to Water Heat Pump

Cool Heat works on a well proven principle known as vapour compression & refrigeration cycle. It works exactly the same way as the common refrigerator works. This technology already embedded in every household.

Cool Heat consists of 4 functional modules : Compressor, Expansion valve & two heat exchangers. One is to absorb heat from the heat source and other is to reject the heat.

Cool Heat is a mover of heat, it absorbs heat from one place to move it via a heat transfer medium or refrigerant to be used for any other application.

Cool Heat is the most Economical solution for hot water needs.

# Cool Heat Aqua Series

## Water to Water Heat Pump

### New approach to comfort

#### Simultaneous Heating and Cooling

Cool Heat Aqua is designed to cater the need of Hot water in a large scales for Hotels, Hospitals and Commercial Establishments, Pharmaceutical and Food Industry. While generating hot water at this scale, considerable amount of cooling is generated in the process to satisfy the need of cooling for room and other areas.

For HVAC, hot water is required regulated heating in order to maintain humidity in the critical process areas. Cool Heat Aqua is designed to fulfil this need and designed for heating load and free the cooling generated from the process is supplied to the chiller.

In a modern HVAC Systems, Cool Heat Aqua Series Heat Pump is the perfect choice for Energy saving on both the fronts heating and cooling with the quicker ROI.

Now it's possible to  
balance nature without  
burdening your balance



Available from 7 KW to 120 KW Capacity



Available from 110 KW to 1 MW Capacity

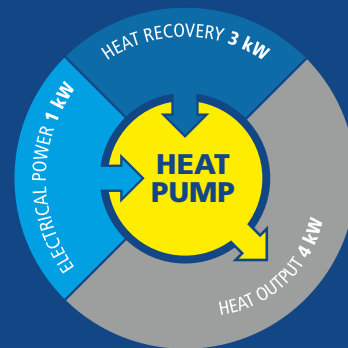
#### Highlighted Points of Heat Pump:

- Brio products are designed to protect the Environment
- Cool Heat Series complies the standards for preserving the ozone layer (ODP - Ozone Depletion Potential) and limiting the greenhouse effect (GWP - Global Warming Potential).
- Components of Cool Heat Series are optimised to operate with R134a /... refrigerant ensures high performance coefficients, reduced energy consumption and extended service life.
- Economical, Eco friendly and easy to Install

## Renewable heat energy recovered from the environment

The efficiency of Cool Heat is termed as "Coefficient of Performance" (CoP). Approximately 75% of the energy needed for heating comes from the environment. It means, for every 1kWh of electricity used to power Cool Heat, up to 4kWh of heat energy is produced. Simultaneously giving an efficiency of up to 400%.

The higher CoP, more "free" environmental energy Cool Heat is using!

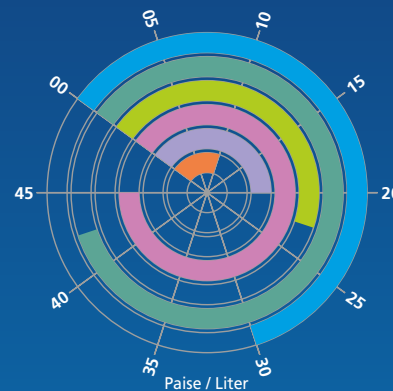


## Water heating cost comparison

Cool Heat is a performance technology which facilitates effective and efficient use of the input electrical energy which adds to the savings.

With day by day rise in fossil fuel costs, Cool Heat can save even more.

■ Cool Heat  
 ■ Furnace Oil  
 ■ Electric  
 ■ Natural Gas  
 ■ LPG  
 ■ Diesel



### Advantages :

- Easier to install and less investment for installation
- Easy integration with building management system
- Plug & Play features for quick installation, reduces setup time.
- Qualifies for 80% tax depreciation in the first year of installation
- All season, round the year hot water solution
- Accommodated in compact foot print compared to other water heating system
- Fully automated operation
- User friendly control panel
- Energy efficient, hence less operating cost
- Cooling is available as optional
- No hidden operating costs
- Flexible modular design to suit available space at site

### Applications



### Our Business Partners



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