

# Hot water, efficiently



# Make savings appear out of thin air with a Midea heat pump from Chromagen



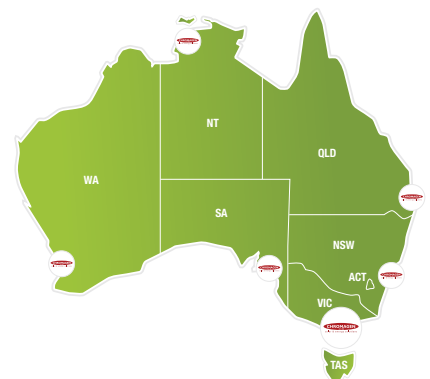
Harvest the free energy from our plentiful air to heat your water with the advanced Midea heat pump from Chromagen. This renewable energy water heating technology uses up to 65%\* less energy than a conventional water heater, whilst providing reliable hot water all day and night.

## Midea heat pump by Chromagen

Chromagen Pty Ltd is a proudly Australian owned and operated company with a mission to provide sustainable environmental solutions for Australian consumers.

Founded in 1962, the Chromagen brand is now a major international player in thermal solar technology. Their world-class solar hot water systems are sold to over 35 countries and are recognised across the globe for their high quality, reliability and durability.

Today Chromagen Pty Ltd distributes a wide range of solar and energy solutions including the brilliant Midea heat pump. In Australia, Chromagen has a nation-wide presence with a network of offices, dealers and service agents across the country, so you can count on local experience, solutions and service.



\*Energy use reduction based on CER (AS/NZS 4234) modelling, in Zone 3

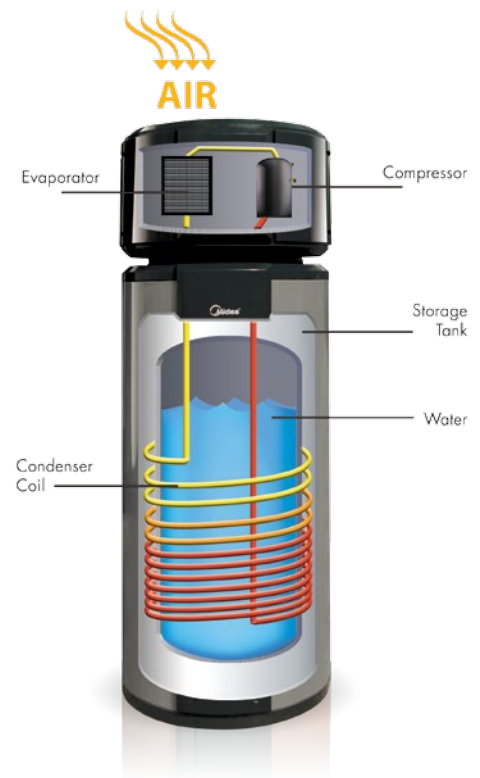
## Hot water on tap

Hot water is a basic household need and there are few things more soothing than relaxing in a warm shower or bath. There are however, few things more frustrating than running out of hot water just when you want it, but with a Midea heat pump, regardless of the weather, reliable hot water is always on tap.

Heat pumps utilise an ingenious technology to efficiently transfer thermal energy directly from the surrounding air and into the water, and so do not rely on the sun or fossil fuels to provide an energy source.

## How it works

1. A fan draws in air, containing heat energy, across the evaporator
2. The evaporator turns the liquid refrigerant into a gas
3. The compressor pressurises the refrigerant into a hot gas
4. The hot gas inside the condenser coil heats the water inside the coil-wrapped tank
5. The refrigerant reverts back to a liquid after heating the water and continues to the evaporator for the process to start again



## The heat pump advantage:

- Heat pumps produce significantly more heat energy than the power input, making them highly efficient water heaters
- Huge savings in running costs over an electric storage system
- Heat pumps do not require roof top solar thermal collectors. For this reason heat pumps are ideal where solar water heaters are not viable
- Chromagen's Midea heat pump is designed to provide a fast and easy replacement of an existing electric storage hot water system
- Economical to purchase, install and run
- Eligible for Government Small-scale Technology Certificates (STCs) (Eligibility criteria apply)
- Eligible for VEECs (Victoria Only)

*“With a Midea heat pump, hot water is on tap whenever you need it”*



## Small-scale Technology Certificates (STCs)

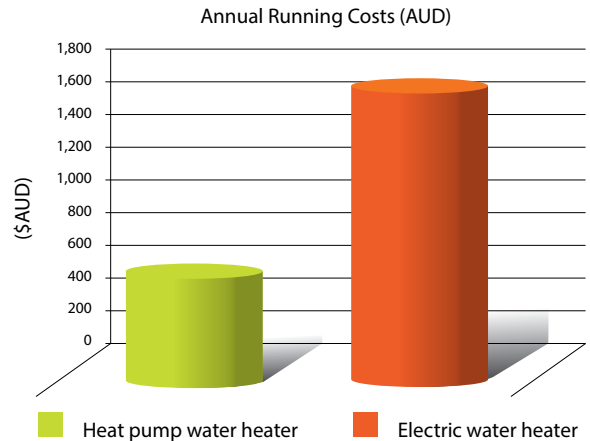
The highly energy efficient Midea hot water heat pump qualifies to generate Small-scale Technology Certificates under the Federal Government RET scheme and so Australian consumers can use these to reduce the point of sale price of their heat pump when replacing an existing hot water system.

## Energy efficiency

### Did you know?

Water heating accounts for nearly a quarter of the energy use and greenhouse gas emissions in the average Australian home.

An energy efficient hot water system such as a heat pump is a great way for households to make substantial reductions in their energy consumption and cost of living. A heat pump provides a quick and easy replacement of your old energy-hungry electric water heater, whilst also reducing CO<sub>2</sub> emissions by over 4 tonnes, and saving you up to \$930\* per year.



### Did you know?

A heat pump is like an energy multiplier. From 1 kW of power input, it can create over 4 kW of output heat<sup>1</sup>. That's a performance efficiency of a remarkable 400%. Whereas conventional electric storage water heaters can only convert 1 kW of input power into 1 kW of output heat.



\*Estimation based on daily demand of 300 litres at 60°C from HP280 (RSJ-35/300RDN3-D) STC's in Zone 3, obtained from independent laboratory tests by the Clean Energy Regulator (CER) and a retail electricity cost of \$0.30c per kWh.

## Smart technology

With a Midea heat pump, set up and operation monitoring is made simple thanks to an amazing, user-friendly touch pad interface and clear Liquid Crystal Display.



Never before has there been such an advanced hot water system that provides intuitive operation and helpful functions such as temperature monitor, ON/OFF timer, safety lock, auto-dimming LCD and power outage memory, all encompassed in a stylish and sophisticated design. Plus, Chromagen's range of Midea heat pumps operate at a very low 48 dBA which will keep your neighbours happy and you will hardly know it's there!

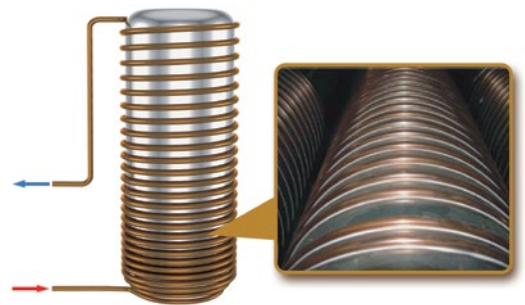
## Operational modes

To ensure a constant and reliable supply of hot water no matter how cold the weather!

- ECO mode is the standard mode where the highest efficiency is achieved
- In Hybrid mode the heat pump & E-heater will operate together to ensure the set temperature is achieved<sup>□</sup>
- When the air temperature drops to below 5°C, the heat pump will automatically select E-heater mode for an electric hot water boost

## Special features

- Modern and stylish appearance suits current contemporary home design
- A one-piece streamline shape incorporates a top-mounted compressor and compact footprint for installation flexibility
- A tank-wrapped condenser coil applies efficient heat transfer to the water storage cylinder whilst preventing water contamination
- Built in frost protection mode protects the condenser from icing
- 25 Pa air outlet pressure enables ducted flueing up to 5 meters in length
- An automatic disinfection function periodically heats the stored water beyond its set temperature to prevent the growth of bacteria and legionella<sup>^</sup>
- Vacation mode conserves energy while the heat pump is idle, and automatically reactivates prior to the home owners return to ensure the perfect water temperature is acquired<sup>^</sup>
- Power outage memory<sup>^</sup>



Tank-wrapped condenser coil

## Heat pump selection

| Model       | Suitable for No. of People (moderate climate) | Heat up time | Recovery Rate | Capacity   |
|-------------|---|--------------|---------------|------------|
| Midea HP170 | 3 - 4 Persons                                 | 5h:43m       | 30 L/hr       | 170 Litres |
| Midea HP280 | 3 - 6 Persons                                 | 5h:13m       | 54 L/hr       | 280 Litres |

Figures based on expected recovery times in Brisbane (Zone 3). Heat up time and recovery rate is based on AS/NZS 5125 test condition 2 test data.

□ Applicable to HP170 model only. ^ Applicable to HP280 model only.



solar & energy solutions

## Midea heat pump product specifications

| Heat Pump Model                     | Midea HP170      | Midea HP280                       |
|-------------------------------------|------------------|-----------------------------------|
| Nominal volume capacity (L)         | 170              | 282                               |
| Voltage / Hz / Phase                | 220-240 / 50 / 1 |                                   |
| Element input power (W)             | 2150             | 3000                              |
| Hot water heating capacity (W)      | 1500             | 3000                              |
| Max water temperature (°C)          | 65               | 60                                |
| Rated input power (W) / current (A) | 2780 / 12.1      | 4300 / 18.7                       |
| Relief valve pressure (kPa)         | 1000             | 1000                              |
| Noise level (dBA)                   | 48               | 48                                |
| Pipe connection diam (mm)           | 20               | 20                                |
| Cylinder Type                       | Vitreous Enamel  | Vitreous Enamel / Stainless Steel |
| Outdoor resistance class            | IP24             | IP24                              |

| Residential Warranty             |
|----------------------------------|
| 5 Years Tank                     |
| 3 Years Compressor & Electronics |
| 1 Year Parts & Labour            |

| Dimensions                  | Midea HP170 | Midea HP280 |
|-----------------------------|-------------|-------------|
| Height (mm)                 | 1580        | 1920        |
| Diameter (mm)               | 568         | 650         |
| Height to water inlet (mm)  | 655         | 217         |
| Height to water outlet (mm) | 949         | 1197        |
| Net weight (Kg)             | 90          | 117         |

| Running modes                       | Midea HP170   |             |          | Midea HP280    |
|-------------------------------------|---------------|-------------|----------|----------------|
|                                     | Economy       | Hybrid      | E-heater | Operating mode |
| Ambient temp                        | 5 ~ 43 °C     | -20 ~ 43°C  |          | -20 ~ 45 °C    |
| Heating Capacity (W)                | 1500          | HP          | E-heater | 3000           |
|                                     |               | 1500        | 2150     |                |
| Cop                                 | 3.5           | 3.5         | 1        | 3.6            |
| Rated input power (W) / current (A) | 780 / 3.4     | 2780 / 12.1 |          | 4300 / 18.7    |
| Refrigerant type/quantity           | R134a / 0.8kg |             |          | R134a / 1.2kg  |

## Why choose Chromagen?

- Chromagen Pty Ltd is Australian owned and operated
- Offices Australia-wide
- National dealer & service network
- A wide range of efficient hot water solutions to suit your lifestyle
- Committed to quality, innovation & energy-efficient solutions



## Other efficient living products from Chromagen:

Solar Water Heaters | Eternity Continuous Flow Gas Water Heaters | Solar Power Systems



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*This revision supersedes all previous versions. All details in this document are accurate at time of publishing. Product specifications may change without notice. For the latest product details and specifications, please visit our website - [www.chromagen.com.au](http://www.chromagen.com.au)*