



## Heat Pump Pool Heaters

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Elite Silent | Summer Eco | Commercial Series





## About Madimack

Madimack is 100% Australian owned and operated, providing energy efficient systems, services and solutions to manufacturing, healthcare, government facilities, and homes nationwide. We have always been big when it comes to heating and cooling buildings efficiently, and now we are bringing that expertise to your pool environment, too. We strive for reliability, durability, and energy efficiency, and promise you the highest quality by providing the longest pool heat pump warranty on the market.

Renowned for creative, energy efficient solutions, Madimack's engineering department is at the forefront of design and sustainability. We offer a full range of systems from small residential through to the most complex year-round commercial heating systems. We provide designs, installation, energy modelling, and smart control system integrations. It's time to create a synchronised, sustainable solution for your needs.

All Madimack's residential heat pumps use the latest inverter technology and through rigorous testing and research we are constantly improving the quality, efficiency and reliability. By using only the very best technology and sourcing superior components from world leading manufacturers, our heat pumps continue to perform year after year.

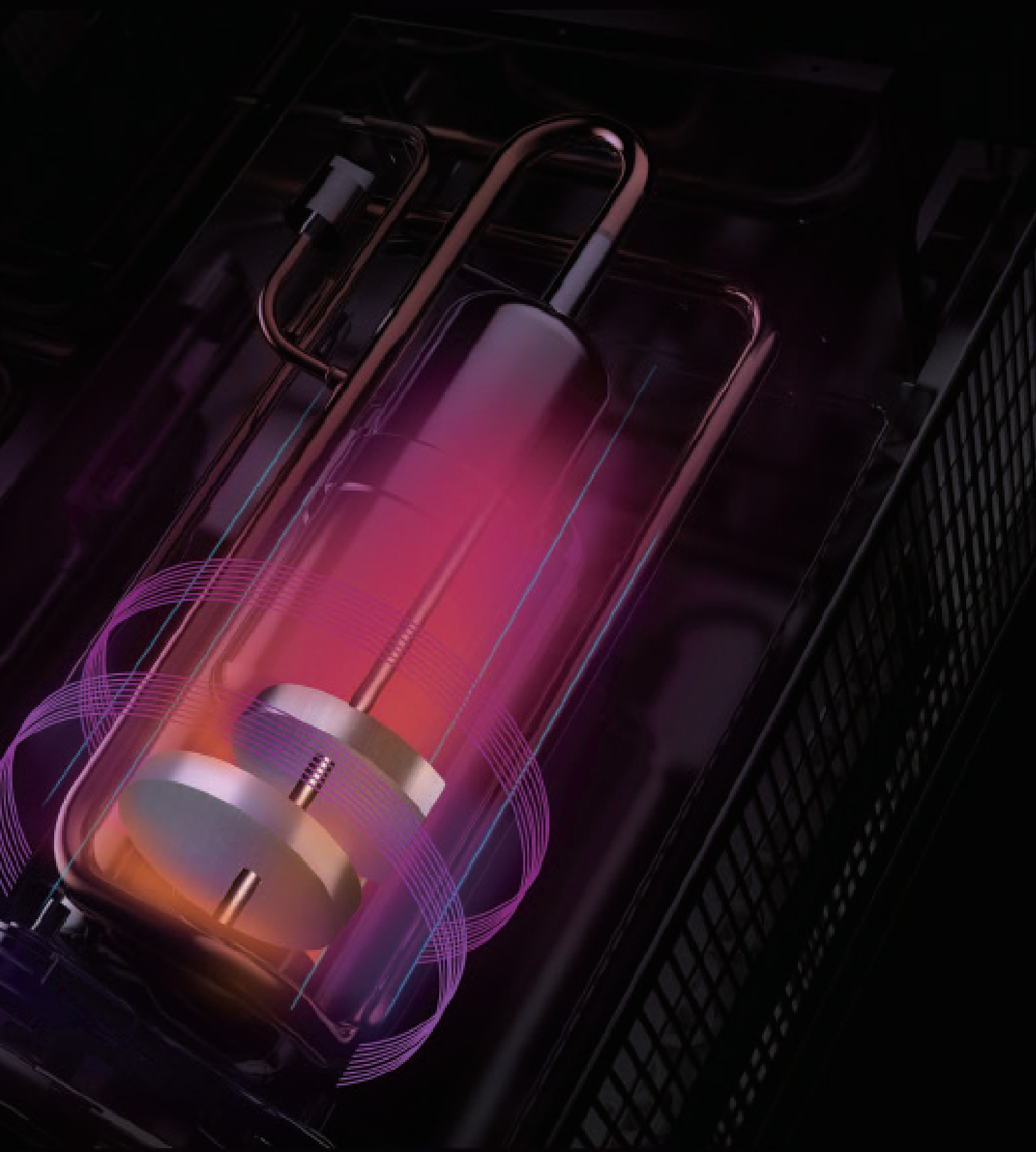
## What are heat pumps?

A pool heat pump uses electricity to operate and as the name suggests transfers or "pumps" heat from one place to another. Working like a reverse air conditioner, the unit extracts the heat from the outside air and transfers it to the pool water. This method of renewable heat transfer is proven to be the most efficient form of pool heating. Madimack heat pumps are designed for Australian conditions by taking advantage of the mild climate and high humidity. They produce best in class efficiency to keep your pool warm for when you need it, making your garden the oasis that you dream of.

## Our heat pump technology

Madimack heat pumps include a titanium heat exchanger with a 25-year guarantee combined with a corrosion resistant evaporator coil for the most durable heat exchanger combination in the industry. These products are also TÜV certified to give you peace of mind. The TÜV Rheinland testing body is an international service group of engineers and product testers. It establishes international standards that can be used as a base of comparison for these products that are used to satisfy their performance and quality, and encourages manufacturers to improve the efficiency of their equipment. Carried out on a voluntary basis, these certification programs test equipment at random conditions and confirm that it performs as advertised. In addition, Madimack heat pumps are lightweight, compact and very easy to install, making them ideal for new pools or enhancing the one you already have.

# INVERTER TECHNOLOGY



## WHAT SETS US APART

- ✓ Up to 25 years warranty
- ✓ TÜV Rheinland tested
- ✓ Highest efficiency
- ✓ WiFi as standard
- ✓ Patented quietest unit
- ✓ Full inverter technology
- ✓ Touchscreen easy to use controller
- ✓ Night Mode
- ✓ Built in flow switch
- ✓ Automatic defrost
- ✓ Titanium heat exchanger
- ✓ Reverse fan for quieter operation
- ✓ Compatible with Solar PV
- ✓ R32 Eco friendly refrigerant
- ✓ Electronic expansion valve

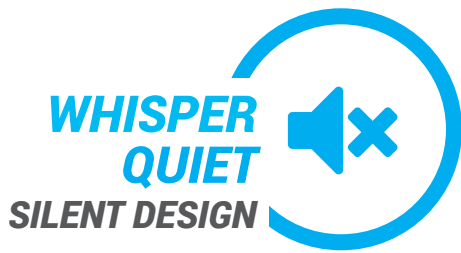
## SERVICES

- ✓ Free to use online calculator
- ✓ Online warranty portal with 24-hour response
- ✓ In depth installation and user manuals
- ✓ Contractor installation, training and advice
- ✓ Commercial energy modelling

## INVERTER TECHNOLOGY

- ✓ Longer unit lifetime by up to five years
- ✓ Higher efficiency than on/off units
- ✓ Night mode and quiet mode built in
- ✓ Soft start operation





# elite

## SILENT HEAT PUMP SERIES

The Elite Silent Series comprises of all the best you can ask for in a pool heater. Utilising the newest inverter technology, it creates world class efficiencies and runs quieter than any other unit with its patented back discharge design. This unit stands high above the rest and looks amazing next to your designer pool. With unit size achieving a massive 28kW in single phase you can be sure to heat your pool all-year round.

- ✓ Extremely energy efficient with an average C.O.P of 10
- ✓ Full inverter stepless compressor and fan
- ✓ Sleek designer look.
- ✓ Six models up to 28 kW in single phase
- ✓ Three phase 35kW model
- ✓ Patented silent design
- ✓ High quality anti-corrosion aluminium alloy casing
- ✓ Intuitive touch screen display
- ✓ Wi-Fi as standard
- ✓ Heat and cool option
- ✓ Titanium heat exchanger with 25-year warranty
- ✓ Four-year extended warranty
- ✓ Reverse discharge air outlet
- ✓ Automatic defrost function
- ✓ Built-in flow switch and safety devices
- ✓ Newest most eco-friendly R32 Refrigerant
- ✓ Three coil evaporator for a more compact unit size
- ✓ TÜV Rheinland certified

# SPECIFICATIONS

| Model   | ES110                           | ES130       | ES170        | ES210            | ES280            | ES350S           |
|---|---------------------------------|-------------|--------------|------------------|------------------|------------------|
| PERFORMANCE CONDITION: Air 27°C/ Water 27°C/ Humid. 80% |                                 |             |              |                  |                  |                  |
| Heating capacity (kW)                                   | 11.0                            | 13.0        | 17.0         | 21.0             | 28.0             | 35.2             |
| COP Range   | 14~6.4                          | 14.5~6.6    | 15~6.5       | 14.8~6.4         | 15~6.5           | 15-6.5           |
| Average COP at 50% Speed                                | 10.1                            | 10.3        | 10.2         | 10.3             | 10.3             | 10.3             |
| PERFORMANCE CONDITION: Air 15°C/ Water 26°C/ Humid. 70% |                                 |             |              |                  |                  |                  |
| Heating capacity (kW)                                   | 7.7                             | 9.0         | 11.5         | 14.5             | 17.0             | 24.2             |
| COP Range   | 7.5~4.5                         | 7.5~4.5     | 7.8~4.6      | 7.1~4.6          | 7.5~4.6          | 7.5-4.7          |
| Average COP at 50% Speed                                | 6.3                             | 6.3         | 6.2          | 6.3              | 6.3              | 6.4              |
| TECHNICAL SPECIFICATIONS                                |                                 |             |              |                  |                  |                  |
| Operating air temperature (c)                           | -10 to +43                      |             |              |                  |                  |                  |
| Compressor  | Twin-Rotary Mitsubishi DC       |             |              |                  |                  |                  |
| Heat exchanger  | Twisted Titanium Heat Exchanger |             |              |                  |                  |                  |
| Power supply  | 240v                            | 240v        | 240v         | 240v             | 240v             | 415v             |
| Rated input power (kW)                                  | 0.21~1.71                       | 0.25~2.0    | 0.29~2.5     | 0.41~3.15        | 0.51~3.7         | 0.65~5.38        |
| Rated input current (A)                                 | 0.97~7.78                       | 1.15~9.09   | 1.34~11.36   | 1.86~14.33       | 2.3~16.8         | 0.94~7.8         |
| Maximum input current (A)                               | 10                              | 12          | 15           | 17               | 20               | 9.5              |
| Sound level at 1m dB(A)                                 | 36.6~47.9                       | 40.1~48.7   | 41.1~51.8    | 38.9~52.2        | 41.5~52.9        | 41.5-52.9        |
| Sound level at 10m dB(A)                                | 16.6~27.9                       | 20.1~28.7   | 21.1~31.8    | 18.9~32.2        | 21.5~32.9        | 46.8             |
| Advised water flux (L/Min)                              | 50-70                           | 60-80       | 80-120       | 120-150          | 160-200          | 200-250          |
| Water connection (mm)                                   | 40mm                            |             |              |                  |                  |                  |
| Net weight (kg)   | 57                              | 61          | 66           | 72               | 91               | 116              |
| Dimensions L x W x H                                    | 890x440x658                     | 890x440x658 | 1060x440x658 | 1060 x 440 x 958 | 1060 x 440 x 958 | 1314 x 512 x 958 |



# summer eco

## ECONOMIC HEAT PUMP SERIES

Built with efficiency and simplicity in mind the quiet, long lasting and easy to use Summer Eco is perfect for energy conscious minds. With low energy and night time mode, it means efficiency can be increased by up to 20%, and with WiFi as standard you can change your pool temperature and timers from wherever you are. State of the art anti-corrosion ABS casing means you can be sure your pool stays warm season after season no matter where you live.

- ✓ Extremely energy efficient with an average C.O.P of 8
- ✓ Inverter compressor and fan
- ✓ Six models up to 24 kW in single phase
- ✓ Quieter than on/off technology
- ✓ Anti-corrosion ABS casing
- ✓ Easy to use controller
- ✓ Slim design
- ✓ Wi-Fi as standard
- ✓ Heat and cool option
- ✓ Titanium heat exchanger with 25-year warranty
- ✓ Two-year extended warranty
- ✓ Front discharge air outlet
- ✓ Reverse cycle defrost down to -15°C
- ✓ Built-in flow switch and safety devices
- ✓ Newest most eco-friendly R32 Refrigerant
- ✓ TÜV Rheinland certified



# SPECIFICATIONS

| Model   | SE09                            | SE13        | SE16        | SE20        | SE24        |
|---|---------------------------------|-------------|-------------|-------------|-------------|
| PERFORMANCE CONDITION: Air 27°C/ Water 27°C/ Humid. 80% |                                 |             |             |             |             |
| Heating capacity (kW)                                   | 9.0                             | 13.0        | 16.0        | 20.2        | 24.2        |
| COP Range   | 10.5~6.2                        | 10.8~6.3    | 10.7~6.2    | 10.8~6.2    | 10.8~6.3    |
| Average COP at 50% Speed                                | 9                               | 9.2         | 9.1         | 9.1         | 9.2         |
| PERFORMANCE CONDITION: Air 15°C/ Water 26°C/ Humid. 70% |                                 |             |             |             |             |
| Heating capacity (kW)                                   | 6.5                             | 9.0         | 11.0        | 14.0        | 16.0        |
| COP Range   | 6.5~4.2                         | 6.2~4.5     | 6.6~4.3     | 6.5~4.2     | 6.6~4.5     |
| Average COP at 50% Speed                                | 6.1                             | 6.0         | 6.1         | 6.1         | 6.2         |
| TECHNICAL SPECIFICATIONS                                |                                 |             |             |             |             |
| Operating air temperature (c)                           | -10 to +43                      |             |             |             |             |
| Heat exchanger  | Twisted Titanium Heat Exchanger |             |             |             |             |
| Power supply  | 240v                            |             |             |             |             |
| Rated input power (kW)                                  | 0.28~1.55                       | 0.41~2.01   | 0.50~2.56   | 0.60~3.26   | 0.72~3.81   |
| Rated input current (A)                                 | 1.21~6.73                       | 1.76~8.70   | 2.17~11.12  | 2.61~14.16  | 3.13~16.56  |
| Maximum input current (A)                               | 9.5                             | 12.5        | 17.0        | 19.5        | 20.0        |
| Sound level at 1m dB(A)                                 | 41.6~53.5                       | 43.9~54.0   | 46.2~57.3   | 46.3~58.1   | 46.9~58.7   |
| Sound level at 10m dB(A)                                | 21.6~33.5                       | 23.9~34     | 26.2~37.3   | 26.3~38.1   | 26.9~38.7   |
| Advised water flux (L/Min)                              | 50-70                           | 60-80       | 80-120      | 120-150     | 150-200     |
| Water connection (mm)                                   | 40mm                            |             |             |             |             |
| Weight (kg)   | 47                              | 49          | 60          | 68          | 68          |
| Dimension L x W x H                                     | 872x349x654                     | 872x349x654 | 962x349x654 | 962x349x754 | 961x420x758 |



# elite max

## COMMERCIAL HEAT PUMP SERIES

These powerful commercial heaters have the capacity to cope with the demands of any aquatic facility. Built with cutting edge technology and climate adaptive features, the Madimack commercial range keeps up all year round whilst reducing energy bills significantly.

### MAIN BENEFITS

- ✓ Extremely energy efficient with C.O.P up to 10
- ✓ Full stepless inverter compressor and fan
- ✓ High quality anti corrosion casing
- ✓ External controller
- ✓ RS485 connectivity ready
- ✓ Titanium heat exchanger with 25 year warranty
- ✓ Top discharge air outlet
- ✓ Reverse cycle defrost down to -15°C
- ✓ Multiple input and output signals
- ✓ Built in flow switch and safety devices

### COMMERCIAL RANGE SERVICES

- ✓ Bespoke system designs
- ✓ Energy modelling
- ✓ Full HVAC system
- ✓ Heat recovery
- ✓ Dehumidification
- ✓ Ventilation controls
- ✓ Integrated energy systems
- ✓ Servicing and maintenance
- ✓ Potable hot water generation
- ✓ Smart controls

## SPECIFICATIONS

| Model   | 60S                               | 110S           |
|---|-----------------------------------|----------------|
| PERFORMANCE CONDITION: Air 27°C/ Water 27°C/ Humid. 80% |                                   |                |
| Heating capacity (kW)                                   | 60.2                              | 109.5          |
| COP Range   | 15-6.5                            | 15-6.5         |
| Average COP at 50% Speed                                | 10.3                              | 10.3           |
| PERFORMANCE CONDITION: Air 15°C/ Water 26°C/ Humid. 70% |                                   |                |
| Heating capacity (kW)                                   | 40.1                              | 80.8           |
| COP Range   | 7.5-4.7                           | 7.5-4.7        |
| Average COP at 50% Speed                                | 6.8                               | 6.8            |
| PERFORMANCE CONDITION: Air 35°C/ Water 28°C/ Humid. 80% |                                   |                |
| Cooling capacity (kW)                                   | 26.8                              | 53.5           |
| TECHNICAL SPECIFICATIONS                                |                                   |                |
| Operating air temperature (c)                           | -7 ~ 43                           |                |
| Compressor  | Mitsubishi DC Inverter Compressor |                |
| Heat exchanger  | Twisted Titanium Heat Exchanger   |                |
| Fan direction   | Vertical                          |                |
| Power supply  | 400V 3Ph/50Hz                     |                |
| Rated input power (kW)                                  | 2.26~8.90                         | 4.68~17.5      |
| Rated input current (A)                                 | 3.27~12.9                         | 6.78~25.3      |
| Sound level at 1m dB(A)                                 | 70                                | 75             |
| Max input current (A)                                   | 20                                | 40             |
| Sound level at 1m dB(A)                                 | 53.0~61.0                         | 55.0~64.0      |
| Sound level 50% at 1m dB(A)                             | 55                                | 58             |
| Sound level at 10m dB(A)                                | 33.0~41.0                         | 35.0~44.0      |
| Advised water flux (L/min)                              | 320-400                           | 650-800        |
| Water connection (mm)                                   | 75                                | 110            |
| Net dimension LxWxH (mm)                                | 1000x1110x1260                    | 2100x1090x1280 |
| Net Weight (kg)   | 212                               | 459            |

## IDEAL FOR



RESORTS



WELLNESS  
CENTRES



HOTELS



PUBLIC POOLS



SCHOOLS



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ROHS



CB

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