

*inver***ECO**

*inver***ELITE** ^{V3}

*inver***ECLIPSE**

*inver***ELITE** ^{MAX}

HEAT PUMP POOL HEATERS



madimack

Powered by  **Invermac**
TECHNOLOGY

Welcome to a new era of technology.

Madimack's range of products is designed to revolutionise the way you experience the world. With a steadfast focus on sustainability, innovation and enhanced user-features, we are proud to offer cutting-edge solutions that exceed your expectations.

At Madimack, we believe in a future where technology coexists harmoniously with the environment. That's why sustainability is at the core of everything we do. Our products are meticulously crafted to minimise their ecological footprint.

We are thrilled you chose Madimack to partner with. Together we will shape a more sustainable future.



Alex Welsh
Madimack Global CEO



Madimack's enhanced inverter technology, InverMAC, is engineered to support inverter motor operation. The inclusion of product specific proprietary technology allows for precise control of motor speed and energy usage across our range. InverMAC technology supports Madimack's overall position of unrivalled innovation, sustainability and performance. By incorporating inverter motor technology in creative and unique ways, Madimack is leading the way in the development of energy-efficient products.

WHAT ARE HEAT PUMPS?

Heat pumps work by transferring the heat from the air outside a heating unit to the water stored inside a heating unit via a 'heat exchange system' and then pump that heated water into your pool. Heat pumps are the most energy efficient way to heat your pool, using approximately one third of the energy used by alternative pool heating systems.

Heat pump technology is quickly becoming a leading global industry, heavily weighted as a solution for 'net-zero' targets. Developments are burgeoning domestically and internationally, driven predominantly by governmental policy and consumer demand for "net-zero" initiatives.



The benefits of Heat Pumps are various and include:

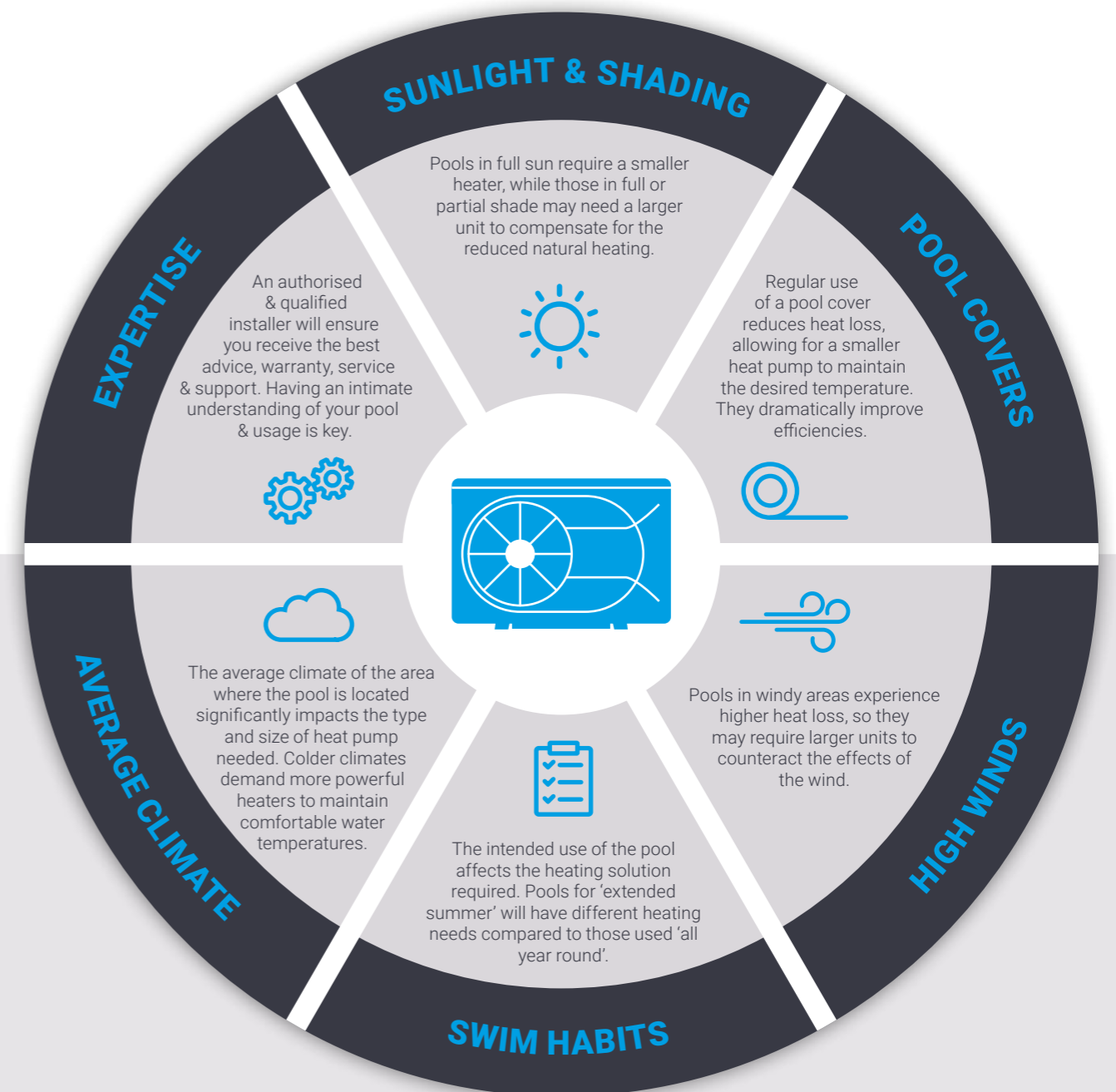
- Source of renewable energy
- Effective in low temperatures
- All round superior efficiencies
- Convenient - no roof space or panels required
- Ease of installation (uses existing connections)
- High grade production and engineering means extended life spans & less maintenance
- Safe (no combustion)
- Supported by ongoing development and innovation (international growth industry)

inverHEAT

GUIDANCE SPHERE

Choosing the right heat pump can be a daunting process. Madimack's range of advanced pool heaters cater for the variations in backyard pools and environments around the globe. Engaging a specialist to support you through the process can optimise your heating solution further. This sphere guides you through the impact your heating choice.

Every aquatic set up is unique, so Madimack's engineers designed a bespoke Pool Heating Evaluation to take the mystery out of choosing the right pool heating solution. Visit the 'tools' section on our website to have an instant complimentary heating evaluation conducted on your pool, madimack.com





OUR HEAT PUMP TECHNOLOGY

As with all industry, leaders are identified by their ability to provide market extensions, drive innovation and advance technology. In that vein, Madimack's commitment to research and development continues to position them as the Australian authority in Heat Pump technology. Our Heat Pumps are tech-advanced, light and easy to install, making them ideal for backyards and commercial premises.

Madimack Heat Pumps are supported by advanced technologies and market leading warranties. Manufactured

from the highest quality components and tested above industry requirements, they include a titanium heat exchanger combined with a corrosion resistant evaporator coil and come with a Heating Performance Guarantee. Madimack Heat Pumps are TuV certified. TuV Rheinland is an international engineering testing body that is used to satisfy performance and quality metrics to international standards. Carried out on a voluntary basis in Australia, the program tests units in random conditions to confirm they perform as promoted.

Innovation without compromise.

WHAT SETS US APART

- 10 year warranty on compressor
- TÜV Rheinland tested
- Highest efficiency
- WiFi included across the range
- Patented quietest unit
- Full inverter technology
- Touchscreen easy to use controller
- Night Mode
- Built in flow switch
- Dual defrost system
- Titanium heat exchanger
- Reverse fan for quieter operation
- Compatible with Solar PV
- R32 Eco friendly refrigerant
- Latest 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

ADVANCED HEAT PUMP SERIES



The Elite V3 has been redesigned from the ground up to bring a revolutionised pool heating system to the Australian market. In conjunction with the newest inverter technology the unit delivers better airflow, higher efficiency, quieter operation and performance. The unit exclusively delivers market leading installation requirements of 100mm from the back and 300mm from the side, providing space saving options for Australian backyards. Engineered with durability in mind, the Elite V3 operates at optimal levels even in the most corrosive and erosive environments - Achieving a massive 31.8kW in a single phase. The Elite V3 sets the standard for all other heaters.

- Revolutionary design that redirects airflow to dramatically WiFi with smart functions reduce spatial requirements
- Extremely energy efficient with a COP of up to 16.4
- Full inverter stepless compressor and fan
- Sleek design
- Six models up to 31.8kW in single phase
- Three phase 40kW model
- Patented silent design
- Marine grade anti-corrosion aluminium alloy casing
- Signature diamond touch screen and intuitive display
- WiFi with smart functions
- Marketing leading 10 year compressor warranty
- Newest most eco-friendly R32 Refrigerant
- Three coil evaporator for a more compact unit size
- TÜV Rheinland certified
- Up to 40 degrees set point temperature
- Industry first centrifugal fan
- Advanced cold air performance
- Largest industry single phase unit

TECHNICAL SPECIFICATIONS



inverter PLUS

Model	ESV3-110	ESV3-140	ESV3-170	ESV3-220	ESV3-270	ESV3-320	ESV3-400
PERFORMANCE CONDITION: Air 27°C/ Water 27°C/ Humid. 80%							
Heating capacity (kW)	11.0	13.8	17.0	22.0	26.9	31.8	40.5
COP Range	16.2-7.3	16.0-7.4	16.1-7.1	16.4-7.4	16.1-7.3	16.2-7.2	16.0-7.0
PERFORMANCE CONDITION: Air 15°C/ Water 26°C/ Humid. 70%							
Heating capacity (kW)	7.3	9.2	11.5	15.0	18.0	21.8	29.0
COP Range	7.5~5.0	7.6~5.1	7.8~5.0	8.2~5.1	7.9~5.2	8.0~5.2	8.3~5.1
PERFORMANCE CONDITION: Air 35°C/ Water 26°C/ Humid. 70%							
Heating capacity (kW)	4.1	5.6	6.5	8.1	10.2	12.2	15.0
TECHNICAL SPECIFICATIONS							
Operating air temperature	-15°C~43°C						
Compressor	Full Stepless DC Compressor						
Casing	Twisted Titanium Heat Exchanger						
Heat exchanger	Marine Grade Aluminium Alloy						
Power supply	240V 1Ph						415V 3Ph
Electrical connection	10A plug	15A plug	Hard wired	Hard wired	Hard wired	Hard wired	Hard wired
Rated input power (kW)	0.21-1.55	0.25~1.92	0.31~2.44	0.40~3.05	0.49~3.8	0.31~2.44	0.79~6.1
Rated input current (A)	0.91~6.74	1.09~8.34	1.35~10.60	1.74~13.26	2.13~16.52	2.60~20.13	1.14~8.84
Maximum input current (A)	9.0	11.0	13.0	16.0	18.0	23.0	12(3)
Sound level at 1m dB(A)	36.3~44.5	36.5~45.9	39.3~46.7	39.5~49.8	39.8~50.2	40.3~50.8	40.6~51.3
Sound level at 10m dB(A)	16.3~24.5	16.5~25.9	19.3~26.7	19.5~29.8	19.8~30.2	20.3~30.8	20.6~31.3
Advised water flow (L/Min) ±20	65	80	100	125	150	180	230
Water connection (mm)	40						
Net weight (kg)	59	59	66	88	103	142	160
Net dimension LxWxH (mm)	817*530*656	817*530*656	868*530*656	1008*530*756	1156*540*756	1029*512*110	1739*512*1106

* The data above is only for reference. For specific data, please refer to the nameplate on the unit.

COOLING AND HEATING SERIES



Designed and engineered to meet the highest requirements for cooling and heating options, with full inverter compressor and top discharge fans for a streamlined efficient air flow; rest assured that you own the latest eco friendly technology. Enjoy new possibilities for pool heating and cooling with the space saving and slick design. Limited space is no longer a concern.

- Full inverter stepless compressor and fan
- Titanium heat exchanger with 25-year warranty
- Advanced cold air performance
- Built-inflow switch and safety devices
- Extremely energy efficient with COP up to 16
- Wi-Fi as standard
- Cooling and heating
- Top discharge air outlet
- Built-inflow switch and safety devices
- Newest most eco-friendly R32 Refrigerant
- Enables more options to fit in space
- Easy to use controller
- 3 models up to 26kW single phase
- Marine Grade anti-corrosion aluminium alloy casing

TECHNICAL SPECIFICATIONS



inverter PLUS

Model	ETD160	ETD210	ETD260
PERFORMANCE CONDITION: Air 27°C/ Water 27°C/ Humid. 80%			
Heating capacity (kW)	16.5	21.0	26.0
COP Range	15.6~7.2	16.0~7.0	15.8~6.9
PERFORMANCE CONDITION: Air 15°C/ Water 26°C/ Humid. 70%			
Heating capacity (kW)	11.7	15.1	18.6
COP Range	6.4~4.4	6.4~4.7	6.6~4.3
PERFORMANCE CONDITION: Air 35°C/ Water 28°C/ Humid. 80%			
Cooling capacity (kW)	7.3	9.0	11.2
TECHNICAL SPECIFICATIONS			
Operating air temperature	-10°C~43°C		
Compressor	Full Stepless DC Compressor		
Casing	Marine Grade Aluminum Alloy		
Heat exchanger	Twisted Titanium Heat Exchanger		
Power supply	240V 1Ph		
Electrical connection	10A plug	15A plug	Hard wired
Rated input power (kW)	0.38~2.33	0.45~3.00	0.84~3.91
Rated input current (A)	1.66~10.1	1.96~13.00	3.65~17.00
Maximum input current (A)	13.5	17.0	20.0
Sound level at 1m dB(A)	41.2~54.9	42.8~54.7	41.5~55.2
Sound level at 10m dB(A)	21.2~34.9	32.8~34.7	31.5~35.2
Advised water flow (L/Min) ±20	100	125	150
Water connection (mm)	40	40	40
Net weight (kg)	70	77	88
Net dimension L x W x H (mm)	780x710x656	780x710x656	780x710x656

* The data above is only for reference. For specific data, please refer to the nameplate on the unit.

EFFICIENT HEAT PUMP SERIES



Built with efficiency and simplicity in mind, the quiet, long lasting and easy to use Eco is perfect for energy conscious minds. Encased in 'state of the art' anti-corrosion ABS casing, the Eco will keep your pool warm season after season. Madimack units include WiFi as a standard function, providing the convenience of being able to change your pool's temperature and timers from wherever your day takes you. Additional benefits include 'low energy' and 'night time' modes, enabling heating efficiency to increase by up to 20%. Madimack's Eco pool heating system provides everything your family needs for an extended season of pool-time fun.

- Energy efficient with COP up to 11
- Full inverter compressor and inverter fan
- Five models up to 24 kW in single phase
- Quieter operation than on/off technology
- Anti-corrosion ABS casing
- Easy to use controller
- Slim design
- Wi-Fi as standard
- Titanium heat exchanger with 25-year warranty
- Front discharge air outlet
- Reverse cycle defrost
- Built-in flow switch and safety devices
- Latest most eco-friendly R32 Refrigerant
- TÜV Rheinland certified
- Up to 40 degrees set point temperature

TECHNICAL SPECIFICATIONS



inverter PLUS

Model	ECO90	ECO130	ECO160	ECO200	ECO240
PERFORMANCE CONDITION: Air 27°C/ Water 27°C/ Humid. 80%					
Heating capacity	9 kW	13 kW	16.1 kW	20.4 kW	24.4kW
COP Range	10.8~6.4	11.0~6.3	10.9~6.2	10.8~6.2	10.9~6.3
PERFORMANCE CONDITION: Air 15°C/ Water 26°C/ Humid. 70%					
Heating capacity	6.5 kW	9 kW	11 kW	14.1 kW	16.1 kW
COP Range	6.4~4.4	6.4~4.7	6.6~4.3	6.4~4.3	6.6~4.5
TECHNICAL SPECIFICATIONS					
Operating air temperature	-5°C~43°C				
Compressor	Full Stepless DC Compressor				
Casing	ABS Anti Corrosion Case				
Heat exchanger	Twisted Titanium Heat Exchanger				
Power supply	240V 1Ph				
Electrical connection	10A plug	15A plug	Hard wired	Hard wired	Hard wired
Rated input power	0.28~1.55 kW	0.41~2.01 kW	0.50~2.56 kW	0.60~3.26kW	0.72~3.81
Rated input current	1.21~6.73A	1.76~8.70 A	2.17~11.12 A	2.61~14.16	3.13~16.56
Maximum input current	8 A	12.5 A	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	23.9~34.0	26.2~37.3	26.3~38.1	26.9~38.7
Advised water flow (L/Min) ±20	50	75	90	120	150
Water connection	40 mm	40 mm	40 mm	40 mm	40 mm
Net weight	46 kg	49	61	67	67
Net dimension L x W x H (mm)	903x349x654	903x349x654	903x349x654	903x349x654	903x349x654

* The data above is only for reference. For specific data, please refer to the nameplate on the unit.

COMMERCIAL HEAT PUMP SERIES



MAIN BENEFITS

- Extremely energy efficient with C.O.P up to 16.1
- Full stepless inverter compressor and fan
- Dual Defrost
- Marine grade aluminium & stainless steel option
- RS485 connectivity ready
- Titanium heat exchanger with 25 year warranty
- Top discharge air outlet
- Reverse cycle defrost down to -15 °C
- Offsite monitoring with Madimack Care
- Industry leading physical size to performance ratio
- Up to 40 degrees set point temperature

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

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 while reducing energy bills significantly. Of particular note is Madimack's market leading ELITE MAX 60 – it is an industry stand out, leading in physical size and performance. Madimack's commercial units offer WIFI as standard.

TECHNICAL SPECIFICATIONS

Model	EM600	EM1200	EM2500
PERFORMANCE CONDITION: Air 27°C/ Water 27°C/ Humid. 80%			
Heating capacity (kW)	60	117	252
COP Range	6.6~16.1	6.5~16.1	6.5~16.0
PERFORMANCE CONDITION: Air 15°C/ Water 26°C/ Humid. 70%			
Heating capacity (kW)	40.1	80.8	185
COP Range	4.9~7.7	4.8~7.5	4.8~7.6
PERFORMANCE CONDITION: Air 35°C/ Water 28°C/ Humid. 80%			
Cooling capacity (kW)	26.8	53.5	110
TECHNICAL SPECIFICATIONS			
Operating air temperature	-15°C~43°C		
Compressor	Full Stepless DC Compressor		
Casing	Marine Grade Aluminum Alloy		
Heat exchanger	Twisted Titanium Heat Exchanger		
Fan direction	Vertical		
Power supply	400V 3Ph/50Hz		
Rated input power (kW)	2.10~8.18	4.25~17.0	5.7~35.8
Rated input current (A)	3.05~11.9	6.16~24.7	8.3~51.9
Maximum input current (A)	19	38	68
Sound level at 1m dB(A)	53.0~61.0	55.0~64.0	58.0~72.0
Sound level at 10m dB(A)	33.0~41.0	35.0~44.0	38.0~52.0
Advised water flow (L/Min) ±20	280-500	500 - 800	800-1200
Water connection (mm)	65	80	110
Net weight (kg)	268	527	1165
Net dimension L x W x H (mm)	1000x1110x1260	2100x1090x1280	2601x1051x2069

* The data above is only for reference. For specific data, please refer to the nameplate on the unit.

POOL PUMP SPEED CONTROLLER



The Madimack Inverter Plus turns a single speed pump into a variable speed pump – plug & play, no electrician required. This means that the cost to run a single speed pool pump can be dramatically reduced, saving up to 80% on operational costs annually. Additional benefits include; dramatic energy savings, reduced noise factor and on-screen smart display features.



TECHNICAL SPECIFICATIONS

Model	Inverter Plus 1100	Inverter Plus 2200
Input Power	1 Phase AC	1 Phase AC
Input Voltage	220~240V	220-240V
Input Frequency	50Hz	50Hz
Output Power	Max 1.1kW	Max 2.2kW
Output Voltage	1ph, 0-240V	1ph, 0-240V
Pump Type	Single Phase	Single Phase
Max. Current	Max 6A	Max 12A
Speed Range	1200-2900rpm	1200-2900rpm
Cooling	Ventilation	Ventilation/Fan
Weight	3.0/2.7	3.0/2.7
Dimension L x W x H	110x155x187mm	110x155x187mm

HEAT PUMP SIZES WITHOUT POOL COVER

Estimated unit size for pools **without a cover being used** and heated up to 28 degrees and max running times approximately 10 hours

	Volume of water in litres	Townsville	Brisbane	Sydney	Perth	Adelaide	Melbourne	Canberra
20000	Nov-Mar	9	9	9	9	9	13	16
	Oct-April	9	9	13	13	13	20	22
	Sept-May	9	16	20	20	20	24	32
	All-year	13	20	24	24	27	32	40
30000	Nov-Mar	9	9	9	13	13	20	24
	Oct-April	9	13	20	20	20	27	40
	Sept-May	9	22	32	32	22	40	48
	All-year	16	27	40	40	40	48	60
40000	Nov-Mar	9	9	13	13	20	32	32
	Oct-April	9	20	24	24	24	40	48
	Sept-May	9	32	40	40	40	48	60
	All-year	20	40	48	48	60	60	80
50000	Nov-Mar	9	9	16	16	22	32	40
	Oct-April	9	22	32	32	32	48	60
	Sept-May	13	40	48	48	40	60	80
	All-year	24	48	69	60	72	80	120
60000	Nov-Mar	9	22	20	20	27	40	48
	Oct-April	9	40	40	40	40	69	80
	Sept-May	16	60	60	60	60	72	86

HEAT PUMP SIZES WITH POOL COVER

Estimated unit size for pools **with a cover being used** and heated up to 28 degrees and max running times approximately 10 hours

	Volume of water in litres	Brisbane	Sydney	Perth	Adelaide	Melbourne	Canberra
20000	Nov-Mar	9	9	9	9	9	16
	Oct-April	9	9	9	9	13	22
	Sept-May	9	13	9	13	16	32
	All-year	13	13	13	14	20	40
30000	Nov-Mar	9	9	9	9	13	24
	Oct-April	13	9	9	14	20	40
	Sept-May	14	14	13	20	22	48
	All-year	20	20	20	22	27	60
40000	Nov-Mar	9	9	9	13	16	32
	Oct-April	13	13	13	20	22	48
	Sept-May	20	20	16	24	32	60
	All-year	24	24	27	32	40	80
50000	Nov-Mar	9	9	13	16	20	40
	Oct-April	16	16	16	22	27	60
	Sept-May	24	24	20	32	40	80
	All-year	32	32	32	40	48	120
60000	Nov-Mar	13	9	13	20	22	48
	Oct-April	20	20	20	27	40	80
	Sept-May	27	32	22	40	48	86
	All-year	27	40	40	40	48	60

Heater sizes indicated above are selected from our wide range of heat pumps and some may require multiple units to match the KW required. Average pool dimensions used. Pools with greater surface area will suffer greater heat loss and may require larger unit. Average temperature, humidity and wind speed used for calculations, heat pump sizing in each location may vary on exact location. A thermal pool cover has been used for calculations in 'when a cover is used' table, other types may change requirement. At start-up from cold the heat pump will need to run for a longer period to reach the set temperature. Please see Madimack FAQ for more information. This table is to be used as a guide, please consult your installer. Madimack accepts no responsibility for incorrect sizing based on this table.

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