# POOL HEATING

ATECPOOL INTERNATIONAL GROUP

atecpool.com

ATECPOOL INTERNATIONAL GROUP

ECO friendly

# Atecpool Inverter Heat Pumps

**ATECPOOL Inverter** Heat Pumps offer a maximum return on your money and extend the swimming pool season more than any other heat pump with best COP. **ATECPOOL** Heat Pumps are fully tested and certified, and are listed as ECO friendly, being highly energy efficient with a COP up to 15.

**ATECPOOL** provides wide range of heating solution from Sirocco, Mega and MegaHigh Inverter Heat pumps to On/Off Air to Water heat pumps, High Temperature heat pumps, Water to Water heat pumps and Dehumidification.

Exclusive and extensive range of pool heating by **ATECPOOL** is excelled with design detailing, research engineering and high quality standards leading to Green Revolution with high energy savings and eco friendly solutions.

# Atecpool Inverter Heat Pumps

## Sirocco Heat Pumps

Eco-friendly & silent heating solution

Temperature Range
18°C - 35°C


## The most silent heat pumps

FIVE STARS HEAT PUMP

- Mitsubishi Inverter Compressor
- Varying Speed
- High Temperature Range

ECO friendly

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# Atecpool Sirocco Inverter
Heat Pump

Temperature Range
18°C-35°C

**The most efficient heat-cool pump in the market. ECO Friendly pool heating.**


- Wi-fi Integrated
- COP up to 10
- Cost Effective
- Easy to Operate

**R410A GAS: Innovative refrigerant**
Environmental friendly and saves energy

## Average COP 10

When maintaining pool temperature at 95% of pool season, the HP is running at 50% capacity which results in the best energy saving performance and most silent pool environment.

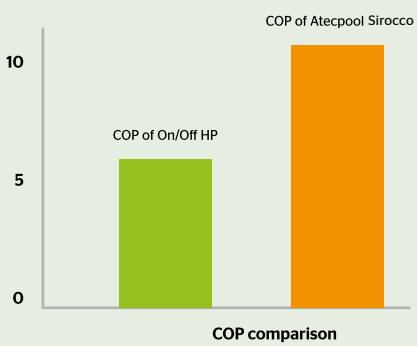
Atecpool Sirocco utilises a simple touch controller which brings the best user-friendly experience.

## Simple Classic Touch Controller

Easy Touch
Easy Run

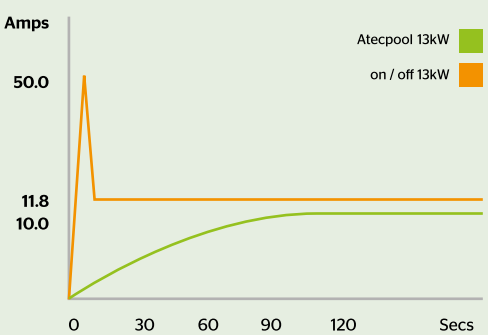
- Silent Heat Pump
- Patented Design
- Atecpool Inverter Technology
- R32/R410A production line
- R410A GAS

## Double Energy saving than on/off hp




## Intelligent system protection

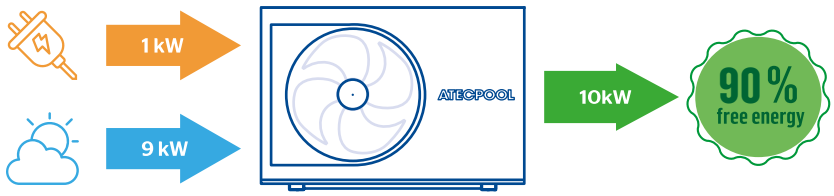
The input current will start from 0 Amps to rated Amps steadly. No rush to house electricity system. Atecpool Sirocco can adapt to wide voltage from 180-260V and adjust the system in different conditions.



# Atecpool Sirocco Inverter
Heat Pump

## Atecpool Sirocco Heat Pump

### Free Energy
Thanks to Atecpool Inverter technology, Atecpool Sirocco provides 90% free energy from ambient air on average.



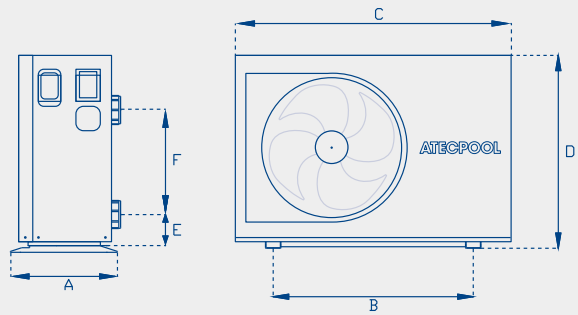

## Atecpool Inverter Technology

### Stepless DC Inverter
Atecpool inverters' core technology is stepless DC inverter. It adopts stepless invert compressor and DC brushless fan motor. The speed can be adjusted by a single hertz and round at a time, which provides amazing energy saving performance and extreme silence.

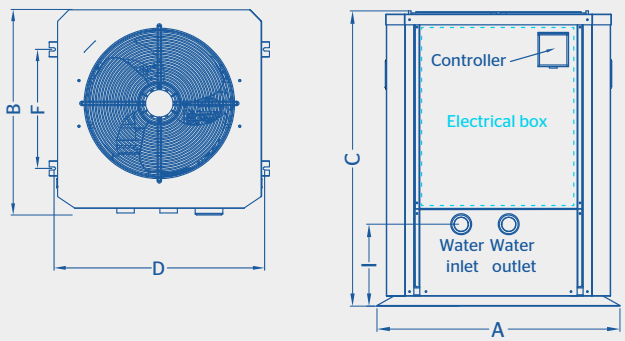
### Unique Inverter Control System
Atecpool inverters' control system is specially designed for pool heating. It can adjust the heating capacity precisely according to different heating needs high speed in the beginning of the season, and better energy saving in the rest of the season by low speed.

### Intelligent Protection
Atecpool inverters can adapt to a wide range of voltage and adjusts the system in different tough conditions. For example, if an electricity peak or poor ventilation occurs, the system can intelligently slow down for comfortable operation. Thus, it has a longer life span than traditional on/off heat pump.

## Atecpool Sirocco Dimensions




| Code | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) |
| AIHP115 | 405 | 680 | 1000 | 660 | 98 | 380 |
| AIHP153 | 405 | 680 | 1000 | 660 | 98 | 380 |
| AIHP180 | 405 | 680 | 1000 | 660 | 98 | 380 |
| AIHP212 | 445 | 653 | 1130 | 775 | 108 | 380 |
| AIHP253 | 445 | 653 | 1130 | 775 | 108 | 470 |




| Code | A | B | C | D | F | I |
|---|---|---|---|---|---|---|
| | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) |
| AVHP265 | 795 | 742 | 966 | 760 | 430 | 268 |
| AVHP308 | 795 | 742 | 966 | 760 | 430 | 268 |
| AVHP352 | 900 | 812 | 1054 | 865 | 500 | 268 |
| AVHP411 | 900 | 812 | 1054 | 865 | 500 | 268 |

# **Atecpool Sirocco Inverter**
# Heat Pump Specifications

Temperature Range
18°C-35°C

## Atecpool Sirocco Inverter Side Discharge


Atecpool Sirocco
Side Discharge

R410A GAS

| Model | | AIHP115 | AIHP153 | AIHP180 | AIHP212 | AIHP253 |
|---|---|---|---|---|---|---|
| Ambient air temperature: 27ºC, water temperature: 26ºC, humidity 80% | | | | | | |
| Heating | Heating capacity (kW) | 11.5 | 15.3 | 18 | 21.2 | 25.3 |
| | Power input (kW) | 1.79 | 2.41 | 2.83 | 3.59 | 4.36 |
| | COP | 14.5-6.4 | 14.4-6.35 | 14.2-6.36 | 14.3-5.91 | 14.48-5.8 |
| Ambient air temperature: 15ºC, water temperature: 26ºC, humidity 70% | | | | | | |
| Heating | Heating capacity (kW) | 8.23 | 11.15 | 13.33 | 14.2 | 16.7 |
| | Power Input (kW) | 1.614 | 2.226 | 2.693 | 2.88 | 3.394 |
| | COP | 7.81-5.1 | 7.64-5.01 | 7.55-4.95 | 7.45-4.93 | 7.58-4.92 |
| Ambient air temperature: 43ºC, water temperature: 30ºC, humidity 70% | | | | | | |
| Cooling | Cooling capacity (kW) | 5.75 | 7.65 | 8.3 | 9.6 | 10.65 |
| | Power Input (kW) | 2.90 | 4.11 | 4.53 | 5.36 | 5.98 |
| | EER | 4.25-1.98 | 4.15-1.86 | 4.08-1.83 | 4.01-1.79 | 4.10-1.78 |
| Power supply (V/Ph/Hz) | | 220V~240V/1P/50~60Hz | | | 380~415V/3Ph/50~60Hz | |
| Max. power input (KW) | | 3 | 4.2 | 4.6 | 5.4 | 6 |
| Max. current (A) | | 13.7 | 18.2 | 19.8 | 10.5 | 10.9 |
| Compressor Brand | | Mitsubishi (DC Inverter) | | | | |
| Fan Quantities | | 1 | | | | |
| Heating temperature range | | 15°C - 35°C | | | | |
| Cooling temperature range | | 18°C - 40°C | | | | |
| Air Side Heat Exchanger | | Hydrophilic Aluminum Fin & Copper Tube | | | | |
| Water Side Heat Exchanger | | Titanium Tube in PVC Tank | | | | |
| Water Connection (mm) | | 50 | | | | |
| Noise Level at 1m dB(A) | | 33-47 | 35-47 | 35-47 | 37-48 | 37-48 |
| Refrigerant | Type | R410A | | | | |
| | Charged (kg) | 0.63 | 0.95 | 1.35 | 1.5 | 1.9 |
| Advised water flow (m³/h) | | 5 | 6 | 7 | 9.1 | 10.8 |
| Fan Power Input (W) | | 60 | 60 | 60 | 120 | 120 |
| Fan Speed (rpm) | | 850 | 850 | 850 | 850 | 850 |
| Fan Airflow (cfm) | | 3000 | 3000 | 3000 | 5000 | 5000 |
| Water pressure drop (kPa) | | 30 | 30 | 30 | 50 | 50 |
| Net dimension LxWxH (mm) | | 980 x 398.5 x 660 | | | 1095 x 455 x 766 | |
| Net/Gross Weight (kg) | | 44/57 | 47/60 | 52/65 | 75/84 | 85/94 |

# Atecpool Sirocco Inverter
Heat Pump Specifications

Temperature Range
18°C-35°C

## Atecpool Sirocco Inverter Top Discharge

Atecpool Sirocco
Top Discharge

R410A GAS

| Model | | AVHP265 | AVHP308 | AVHP352 | AVHP411 |
|---|---|---|---|---|---|
| Ambient air temperature: 27ºC, water temperature: 26ºC, humidity 80% | | | | | |
| Heating | Heating capacity (kW) | 26.5 | 30.8 | 35.2 | 41.1 |
| | Power input (kW) | 4.344 | 5.06 | 5.77 | 6.95 |
| | COP | 14.82-6.1 | 14.7-6.09 | 14.81-6.1 | 14.74-5.91 |
| Ambient air temperature: 15ºC, water temperature: 26ºC, humidity 70% | | | | | |
| Heating | Heating capacity (kW) | 17.87 | 19.84 | 24.56 | 28.1 |
| | Power input (kW) | 3.74 | 4.17 | 5.25 | 5.98 |
| | COP | 7.05-4.78 | 7.28-4.76 | 6.84-4.68 | 7-4.7 |
| Ambient air temperature: 35ºC, water temperature: 28ºC, humidity 70% | | | | | |
| Cooling | Cooling capacity (kW) | 14.84 | 15.5 | 17.4 | 19.8 |
| | Power input (kW) | 5.819 | 6.01 | 6.7 | 7.48 |
| | EER | 4.95-2.55 | 4.98-2.58 | 5.01-2.64 | 5.03-2.66 |
| Ambient air temperature: 43ºC, water temperature: 30ºC, humidity 70% | | | | | |
| Cooling | Cooling capacity (kW) | 12.25 | 13.4 | 15.6 | 17.55 |
| | Power input (kW) | 6.03 | 6.47 | 7.57 | 8.43 |
| | EER | 4.45-2.03 | 4.43-2.07 | 4.41-2.06 | 4.44-2.08 |
| Power Supply (V/Ph/H) | | 380-415V/3Ph/ 50-60Hz | | | |
| Max Power input (kW) | | 6.1 | 6.5 | 7.3 | 8.0 |
| Max Running Current (A) | | 10.9 | 11.6 | 13.0 | 14.3 |
| Refrigerant | | R410A | | | |
| Compressor Brand | | Mitsubishi (DC Inverter) | | | |
| Air Side Heat Exchanger | | Hydrophilic Aluminum Fin & Copper Tube | | | |
| Water Side Heat Exchanger | | Titanium Tube in PVC Tank | | | |
| Water Connection (mm) | | 50 | | | |
| Advised water flow (m³/h) | | 9 | 10 | 12 | 14 |
| Heating Temperature Range | | 15°C - 35°C | | | |
| Cooling Temperature Range | | 18°C - 40°C | | | |
| Noise Level at 1m dB(A) | | 43-49 | 43-49 | 45-51 | 45-52 |
| Fan Power Input (W) | | 185 | 185 | 230 | 230 |
| Fan Speed (rpm) | | 800 | 800 | 800 | 800 |
| Fan Airflow (cfm) | | 6500 | 6500 | 7200 | 7800 |
| Water Pressure drop (kPa) | | 45 | 45 | 50 | 60 |
| Net Dimension LxWxH (mm) | | 760 x 687 x 963 | 714 x 732 x 955 | 900 x 812 x 1060 | |
| Net/Gross Weight (kg)) | | 105/120 | 108/123 | 137/152 | 140/155 |

# Atecpool Mega Inverter Heat Pumps

## High Capacity Inverter

For Commercial Installations

FIVE STARS HEAT PUMP

R410A GAS

Less than 53dB

**The most silent heat pumps**

- Wi-fi Integrated
- Cost Effective
- COP up to 15

ECO friendly

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# Atecpool Mega Inverter
Heat Pump

### Powerful saving commercial inverter

**Easy Touch**
Easy Run

**WiFi Built-in**
Touch Controller

**Comfort Silence**
53dB(A) at 1m

### DC Inverter: Average COP 10

When maintaining pool temperature at 95% of pool season, the HP is running on 50% capacity which results in the best energy saving performance and most silent pool environment.

Silent Heat Pump

Patented Design

Atecpool Inverter Technology

R32/R410A production line

R410A GAS

### Specifications

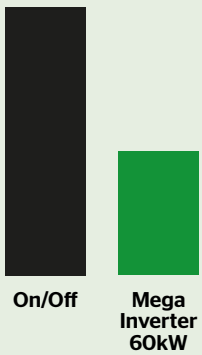
- Reverse cycle defrosting.
- 0-52ºC operation.
- Aluminium-alloy casing.
- Mistubishi Twin-Rotary Inverter Compressor.
- EEV Technology - 20% higher efficiency than capillary.
- Twisted Titanium Heat Exchanger - 40% higher efficiency.

### Double Energy saving than on/off HP

| Heat pump | Mega Inverter 60kW | On/Off HP 60 kW |
|---|---|---|
| COP (air 27ºC / water 27ºC) | 10.5 @50% Capacity | 5 |
| Input power | 2.86 kW | 12 kW |
| Heating time (for 1ºC) | 9.67 hrs | 4.83 hrs |
| Daily consumption | 27.66 kWh | 57.96 kWh |
| Yearly consumption (180 days) | 4978.8 kWh | 10432.8 kWh |

Formula: kW*h=T*V(m^3)*1.16

Above calculation is just a reference when maintaining pool temp for well isolated pool under air 27ºC / water 27ºC



# Atecpool Mega Inverter
# Heat Pump Specifications

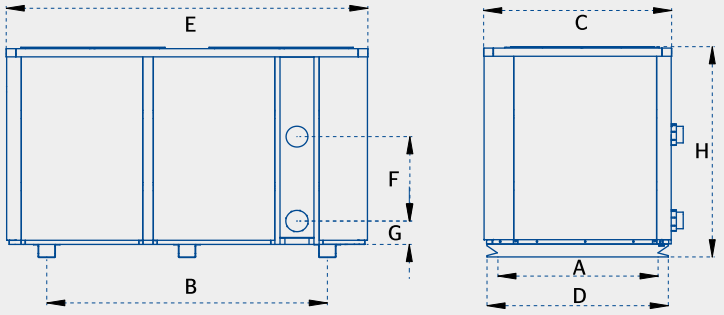
## Mega Inverter Heat Pump Specification

| Model | AMHP060 | AMHP090 |
|---|---|---|
| Performance condition: Air 27°C/ Water 27°C/ Humid. 80% | | |
| Heating capacity (kW) | 60,2 | 115,0 |
| Average COP at 50% speed | 10,5 | 10,0 |
| Performance condition: Air 15°C/ Water 26°C/ Humid. 70% | | |
| Heating capacity (kW) | 40,1 | 80,8 |
| Average COP at 50% speed | 7,0 | 7,0 |
| Performance condition: Air 45°C/ Water 32°C/ Humid. 80% | | |
| Cooling capacity (kW) | 25.1 | 50.3 |
| Technical specifications | | |
| Operating air temp. (ºC) | 0ºC ~ 55ºC | |
| Heat exchanger | Twisted Titanium Heat Exchanger | |
| Refrigerant Gas | 410A | |
| Fan direction | Vertical | |
| Fan quantity | 1 | 2 |
| Fan air flow (cfm) | 20000 | 38000 |
| Fan input power (W) | 500 | 500x2 |
| Fan rotate speed (rpm) | 800 | 800 |
| Power Supply | 400~415V / 3 Ph / 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) | 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 flow (m³/h) | 20~25 | 40~50 |
| Water connection (mm) | 75 | 110 |
| Net dimension LxWxH (mm) approximate | 1000*1110*1260 | 2100*1090*1280 |
| Net Weight (kg) | 212 | 459 |

**Notes:**

* The data above is only for reference. For specific data, please refer to the nameplate on the unit.
* Advised pool volume applies to a private pool with an isothermal cover

## Atecpool Mega Inverter Dimensions




| Code | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) |
| AMHP060 | 1000 | 660 | 1110 | 1070 | 1000 | 780 | 105 | 1260 |
| AMHP090 | 1000 | 1630 | 1090 | 1050 | 2100 | 510 | 140 | 1280 |

# **Atecpool MegaHigh Inverter**
# Heat Pump

**Atecpool MegaHigh Inverter** for large water bodies



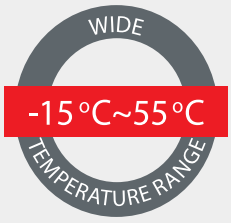
Full Inverter Technology equipped with high quality DC Mitsubishi compressor and DC fan motor. COP achieved upto 16.1 and EER upto 5.3. High energy efficiency units for commercial installations.

### Display & Central Control

Two Display Options : 5 inch LCD Color Display / 7 inch LED Display. Equipped with a 64-bit chip, 0.1degC accurate temperature control and PID automatic defrosting.

### Practical Cabinet Structure

The classic vertical wind outlet type saves ground space to accommodate more units.

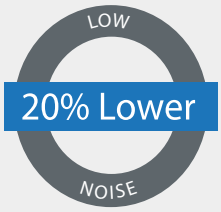



### Broad Climate Suitability

The unit can adapt to a wide climatic range. Lab tests showed maintained stable operation in -15-55°C. This feature makes the unit suitable for markets all over the world


### Soft Starting

When the machine is turned on, its soft start technology avoids a sudden fluctuation of taking high Amps but start the unit softly and reach stable current slowly.



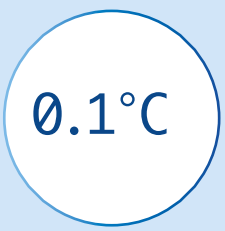

### Low Noise

The DC inverter fan with special design blades not only saves energy but also helps to keep the operating noise 20% lower.

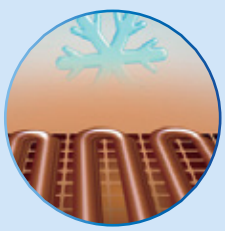
**Centralized Control (RS485)**


**64Bit Processor**


**PID Control**




**Precise Control**



**Automatic Defrost**

# Atecpool MegaHigh Inverter
Heat Pump

## MegaHigh Inverter Heat Pump Specification

| Specification | | Code | |
|---|---|---|---|
| | | AMHP110 | AMHP170 |
| **Heating capacity air 27°C / water 26°C / humidity 80%** | | | |
| Heating Capacity | kW | 80 | 175 |
| Consumed Power | kW | 0.76-10.65 | 1.76-20.97 |
| COP | | 6.1-16.1 | 6.2-16.0 |
| **Heating capacity air 15°C / water 26°C / humidity 70%** | | | |
| Heating Capacity | kW | 60 | 135 |
| Consumed Power | kW | 1.96 ~ 5.96 | 2.61 ~ 20.41 |
| COP | | 4.91 ~ 8.4 | 4.90 ~ 8.5 |
| **Cooling capacity air 43°C / water 26°C / humidity 70%** | | | |
| Cooling Capacity | kW | 42 | 96 |
| Consumed Power | kW | 2.94 ~ 7.37 | 13.81 ~ 13.85 |
| EER | | 4.1 ~ 5.1 | 4.3 ~ 5.3 |
| **Cooling capacity air 53°C / water 35°C / humidity 80%** | | | |
| Cooling Capacity | kW | 25 | 75 |
| Consumed Power | kW | 2.02 ~ 6.28 | 10.73 ~ 17.79 |
| EER | | 3.00 ~ 4.05 | 3.08 ~ 4.1 |
| Operating Air temperature | °C | -15 ~ 55 | |
| Power Supply | V / Ph / Hz | 380-415V~/3Ph-50Hz | 380-415V~/3Ph-50Hz |
| Rated Input current | A | 21 | 47 |
| Casing Type | | metal sheet | metal sheet |
| Compressor | | Mitsubishi DC type | |
| Fan quantity | | 2 | 2 |
| Fan power input | W | 200x2 | 1300x2 |
| Fan rotate speed | rpm | 850 | 850 |
| Fan direction | | vertical | vertical |
| Fan airflow | cfm | 18000 | 22500 |
| Sound Pressure 1m | dB(A) | 60 | 63 |
| Sound Pressure 10m | dB(A) | 40 | 43 |
| Water connection | mm | 63 | 110 |
| Advised water flow | m³/h | 25 | 45 |
| Net dimensions (LxWxH) | mm | 1750x840x1750 | 2170x1150x2130 |
| Refrigerant gas | | R410A | R410A |

# Atecpool Reversible Cycle Heat Pump

## Air/Water Heat Pumps

Heating and Cooling


ECO friendly

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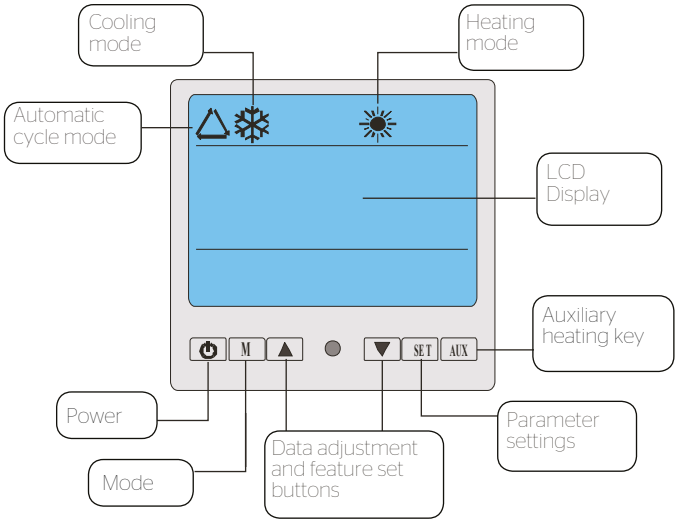
# Atecpool Air/Water Heat Pump
## Outdoor Installation


### Atecpool Air/Water Heat Pump

- Atecpool Reversible cycle heat pump can be used for heating and cooling swimming pools, spas or other water bodies.
- RCHP technology is based on the same principle employed in air conditioners and refrigerators, delivering up to five times more energy in heat than it consumes as electricity. Our heat pumps are designed to heat your pool by extracting ambient heat from the atmosphere. This heat is then transferred into a refrigerant gas which is compressed and heated further. The heat is then transferred into the pool water, and heats your pool.
- With a Coefficient of Performance (COP) of greater than 5.8 at an air temperature of 26°C and over 4.5 at just 15°C, ATECPOOL heat pumps are 15-30% more efficient than competitive units. This remarkable efficiency can save up to 80% on running costs when compared to alternative gas or electric pool heating.
- 16 programs with synchronization capability,
- 2 Years manufacturer warranty.
- Whisper-quiet operation
- Quality, reliability and durability
- Our Heat Pumps are manufactured using only top-quality components. The titanium heat exchanger is not only extremely efficient, but it will never rust or corrode. Our heat pumps also feature more accurate and durable commercial grade digital controllers with the most user-friendly features, specific water flow switches and high capacity compressor capacitors.




**Let's start swimming all year round!**

# **Reversible Cycle Heat Pump**
# Outdoor Installation

### Atecpool Air/Water Heat Pump


### ATECPOOL Heat Pump Benefits

- Uses freely available air energy = 4-5 times more effective than conventional electrical heaters.
- For every kW of power consumed, you get at least 4-5kW of free power
- Inexpensive to run
- Incredibly efficient Japanese inverter technology
- Quietest operation
- Top quality, maximum durability titanium heat exchanger
- Installation is quick and easy

### Water Heat Exchanger

- Made of double spiralled titanium tubes encased in PVC or S.S. for additional protection against corrosive pool water.
- The double spiraling of the heat exchanger increases the surface area that comes in contact with the pool water, this drastically reduces scaling while heating rapidly and efficiently.

### External Heat Exchanger (Evaporator coils)

- The tubes are made of copper and the fins are aluminium.
- The extra-large evaporator coils are designed to collect more heat from air outside to ensure the best performance in even the most adverse conditions.
- Large axial fans, with precision engineered blades are used to draw in maximum ambient air and pass it on to the evaporator coils.

### Refrigerant

- We use the environmentally approved refrigerant R407-C, R410-A, R134-A depending on our client's requirements.
- For maximum efficiency you can combine your reversible cycle heat pump and solar pool heating in one system to capitalise on the suns free energy as well as that from the ambient air. All components of ATECPOOL heat cool pumps are of the highest international quality.

# Reversible Cycle Heat Pump
## Outdoor Installation

| Atecpool Air/Water Heat Pump Specification | | Model / Code | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 03310020H | 03300030 | 03300040 | 03300050 | 03300060 | 03310070 | 03300080 |
| Heating capacity | kW | 8.8 | 13 | 17 | 21 | 25 | 35 | 45 |
| | BTU /hr | 30000 | 44000 | 58000 | 72000 | 86000 | 120000 | 150000 |
| Heating Power Input | kW | 1.9 | 2.65 | 3.7 | 4.6 | 5 | 7.5 | 9.5 |
| Cooling Capacity | kW | 5.8 | 8.8 | 12 | 14.5 | 17.4 | 25 | 34 |
| | BTU /hr | 19720 | 30000 | 41000 | 49500 | 59500 | 86000 | 116000 |
| Cooling Power Input | kW | 2.1 | 2.85 | 3.9 | 5.2 | 5.8 | 8.4 | 9 |
| Running current | A | 8.6 / 9.6 | 13.6 / 14.3 | 18.0 / 19.1 | 7.1 / 7.35 | 8.91 / 10.33 | 13.2 / 14.5 | 15.7 / 16.4 |
| COP | | 5.1 | 5.1 | 5.0 | 5.0 | 5.1 | 5.0 | 4.9 |
| Power Supply | V / PH / HZ | 230 / 1 / 50 | 230 / 1 / 50 | 230 / 1 / 50 | 415V/3N-/50Hz | 415V/3N-/50Hz | 415V/3N-/50Hz | 415V/3N-/50Hz |
| Compressor Quantity | | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Compressor | | Rotory | Rotory | Scroll | Scroll | Scroll | Scroll | Scroll |
| Fan Quantity | | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Fan Input Power | W | 150 | 200 | 200 | 200 | 200 | 200 x2 | 200 X 2 |
| Fan Rotate Speed | rpm | 850 | 830 | 830 | 830 | 830 | 830 | 830 |
| Fan Airflow | cfm | 3330 | 6960 | 6960 | 6960 | 6960 | 13920 | 13920 |
| Fan direction | | Horizontal | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical |
| Noise | dB (A) | 50 | 51 | 51 | 51 | 54 | 59 | 61 |
| Water connection | mm | 50 | 50 | 50 | 50 | 50 | 50 | 63 |
| Water Flow volume | $m^3/h$ | 3 | 6 | 7.5 | 8 | 9 | 10 | 14 |
| Water pressure drop (max) | kPa | 8 | 8 | 10 | 12 | 12 | 15 | 15 |
| Unit net dimensions (L/W/H) | mm | 1010*420*650 | 660*660*860 | 660*660*860 | 660*660*860 | 660*660*860 | 1448*725*976 | 1450*730*1250 |
| Unit net weight | kg | 77 | 86 | 100 | 125 | 150 | 200 | 250 |

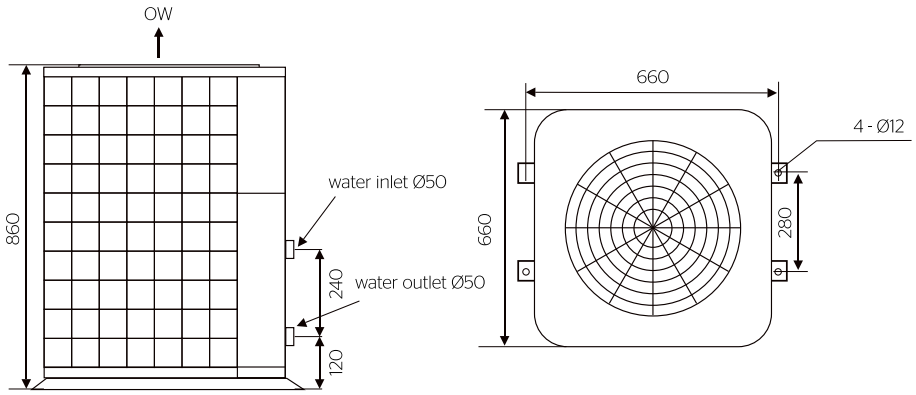
| Atecpool Air/Water Heat Pump Specification | | Model / Code | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 03300090 | 03310100 | 03310110 | 03310120 | 03310130 | 03310140 | 03310160 |
| Heating capacity | kW | 55 | 75 | 90 | 105 | 145 | 160 | 210 |
| | BTU /hr | 187000 | 255000 | 306000 | 357000 | 493000 | 550000 | 714000 |
| Heating Power Input | kW | 11 | 16.7 | 17.5 | 22.5 | 30.2 | 34.2 | 46,3 |
| Cooling Capacity | kW | 42 | 56 | 70 | 88 | 106 | 120 | 150 |
| | BTU /hr | 143000 | 190400 | 238000 | 300000 | 360400 | 410000 | 510000 |
| Cooling Power Input | kW | 10.3 | 17.2 | 17.8 | 24.7 | 32.1 | 41.6 | 56.2 |
| Running current | A | 18.0 / 19.2 | 29.8 / 30.6 | 31.2 / 31.7 | 40.1 / 44.0 | 53.9 / 57.3 | 61.0 / 74.2 | 81.8 / 99.1 |
| COP | | 4.9 | 4.49 | 4.7 | 4.5 | 4.80 | 4.7 | 4.5 |
| Power Supply | V / PH / HZ | 415V/3N-/50Hz | 415V/3N-/50Hz | 415V/3N-/50Hz | 415V/3N-/50Hz | 415V/3N-/50Hz | 415V/3N-/50Hz | 415V/3N-/50Hz |
| Compressor Quantity | | 2 | 3 | 3 | 4 | 3 | 3 | 4 |
| Compressor | | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll |
| Fan Quantity | | 2 | 3 | 3 | 3 | 3 | 3 | 4 |
| Fan Input Power | W | 200 X 2 | 200 X 3 | 200 X 3 | 200 X 3 | 550 X 3 | 550 X 3 | 550 X 4 |
| Fan Rotate Speed | rpm | 830 | 830 | 830 | 830 | 870 | 870 | 870 |
| Fan Airflow | cfm | 13920 | 19500 | 19500 | 19500 | 22500 | 22500 | 30000 |
| Fan direction | | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical |
| Noise | dB (A) | 61 | 61 | 62 | 62 | 64 | 65 | 65 |
| Water connection | mm | 63 | 63 | 63 | 110 | 110 | 110 | 110 |
| Water Flow volume | $m^3/h$ | 18 | 25 | 30 | 32 | 36 | 40 | 60 |
| Water pressure drop (max) | kPa | 15 | 16 | 16 | 16 | 23 | 24 | 24 |
| Unit net dimensions (L/W/H) | mm | 1450*730*1280 | 2150*760*1310 | 2150*760*1310 | 2170*1065*1930 | 2170*1065*2100 | 2170*1065*2100 | 2850*1108*2220 |
| Unit net weight | kg | 265 | 360 | 370 | 695 | 752 | 950 | 1350 |

**Data sheet is based on capacities:**
**Cooling:** Ambient air temperature: 42º / 36º C - Water temperature: 33º C // **Heating:** Ambient air temperature: 23º / 18º C - Water temperature: 26º C

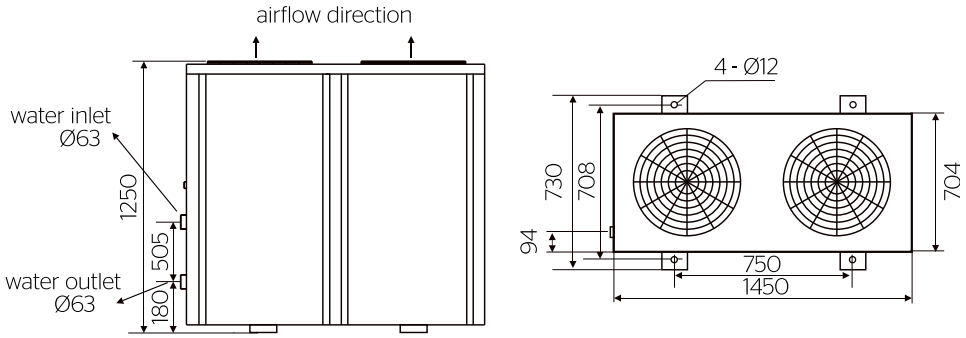
# Reversible Cycle Heat Pump
## Outdoor Installation

### Atecpool Air/Water Heat Pump

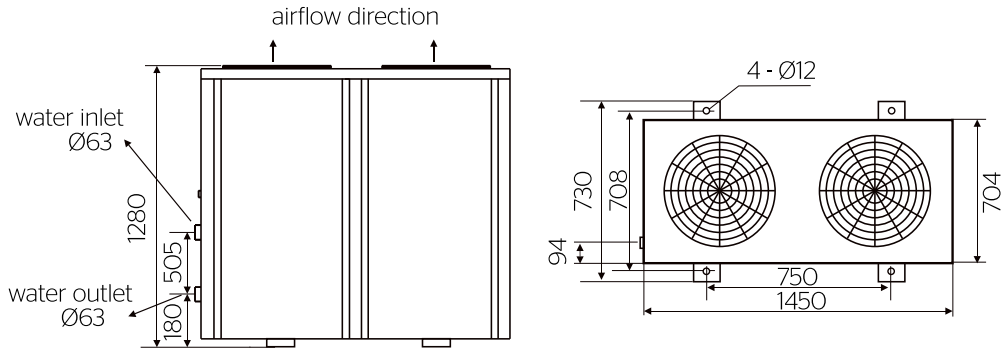
03300060
Heating capacity 25 kW
Cooling capacity 17.4 kW



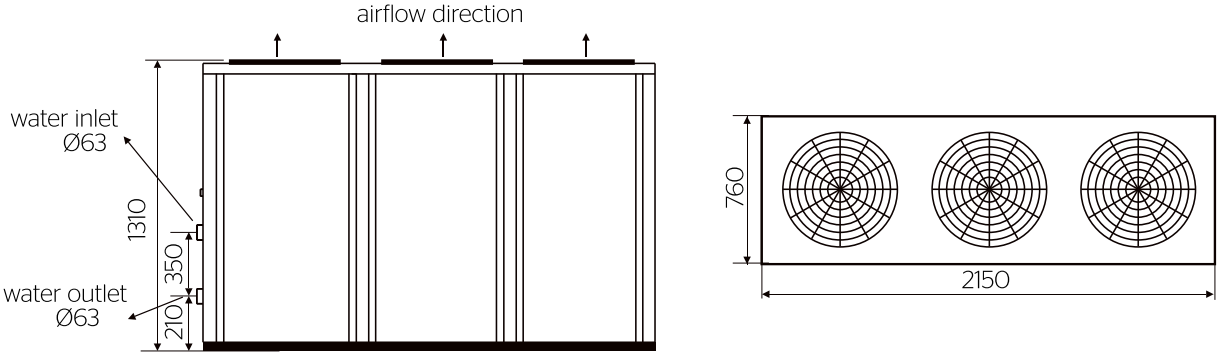

03300080
Heating capacity 45 kW
Cooling capacity 34 kW




03300090
Heating capacity 55 kW
Cooling capacity 42 kW




03310110
Heating capacity 90 kW
Cooling capacity 70 kW



# Atecpool MaxChill Series
Water Chillers

### Atecpool MaxChill water chillers

Ideal for plunge pools and water immersion pools for sports recovery. Atecpool Water Chillers provide low temperatures reaching 10°C for cold water treatment. Anti-Corrosive Titanium Heat Exchanger combined with a R410 refrigerant compressor for low water temperatures.


**>> Low water temperature upto 10°C <<**

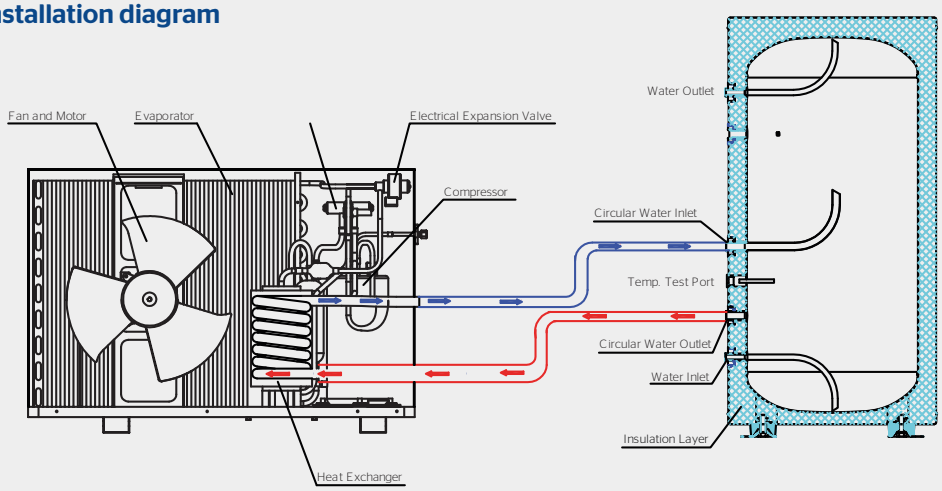
### Suitable for cooling

- Swimming pool
- Spa
- Roof water tanks

### Working principle

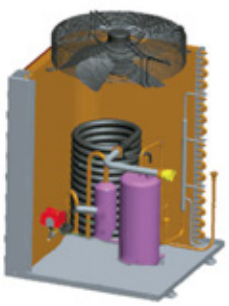
The technology is based on the same principle employed in air conditioners and refrigerators, delivering up to five times more energy than it consumes in electricity. Chillers are designed to give low temperatures to water body by extracting ambient heat from the surrounding air.

### Installation diagram




### MaxChill Components

- Heat Exchanger made of double spiralled titanium tubes encased in PVC or SS for additional protection against corrosive pool water.
- Extra-large evaporator coils are designed to collect more cool energy from the outside air to ensure performance in even the most adverse conditions.
- Large axial fans, with precision engineered blades are used to draw maximum ambient air and pass it on to the evaporator coils

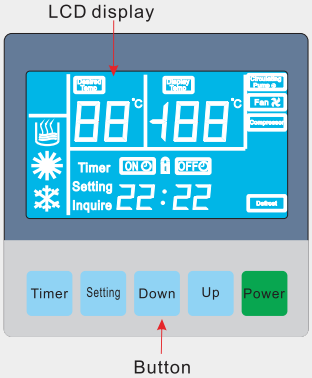


# Atecpool Maxchill Series
## Water Chillers

| Specification | | Model / Code | | |
|---|---|---|---|---|
| | | ACU-200 | ACU-300 | ACU-500 |
| **Chilled water @ 35°C ambient** | | | | |
| Cooling Capacity Rating | kW | 7.5 (2 Ton) | 12.35 (3.5 Ton) | 18 (5 Ton) |
| Rated Power Input | kW | 2.50 | 4.10 | 6.0 |
| Rated current | Amps | 12.10 | 18.60 | 11.40 |
| **Chilled water @ 46°C ambient** | | | | |
| Cooling Capacity Rating | kW | 6.25 | 10.30 | 15.0 |
| Rated Power Input | kW | 2.70 | 4.40 | 6.40 |
| Rated current | Amps | 12.80 | 20.0 | 12.20 |
| Min Cooling Water Temp | | | 10°C | |
| Incoming Cable Size | | 3 Core x 2.5mm² Cu | 3 Core x 4.0mm² Cu | 5 Core x 2.5mm² Cu |
| Power Voltage | | 220V / 50Hz | 220V / 50Hz | 380V / 50Hz |
| Compressor Brand | | Panasonic | Panasonic | Panasonic |
| Compressor | | Scroll*1 | Scroll*1 | Scroll*1 |
| Heat Exchanger | | Titanium Tube Heat Exchanger in PVC shell | | |
| Refrigerant | | R410A | R410A | R410A |
| Electric Expansion Valve | | DPF2.4 | DPF3.0 | DPF3.0 |
| Defrost | | Included | | |
| Cabinet | | Galvernized Steel Casing | | |
| Water Connection Port | mm | Exterior 50mm/ Interior 40mm | | |
| Fan Blade Material | | Axial Fan Plastic Blade | Axial Fan Plastic Blade | Axial Fan Metal Blade |
| Fan Input Power | W | 200 | 400 | 400 |
| Fan Rotate Speed | rpm | 850 | 850 | 850 |
| Noise | dB(A) | 49 | 58 | 58 |
| Adviced water flow | $m^3/h$ | 8-10 | 12-15 | 12-15 |
| Water pressure drop | kPa | 14 | 15 | 15 |
| Unit net dimensions | mm | 630*605*780 | 810*810*1050 | 810*810*1350 |
| Net Weight | Kg | 94 | 105 | 160 |

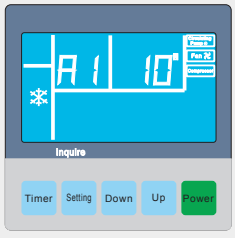
## LCD Display and functions

MaxChill features more accurate and durable commercial grade digital controllers with user friendly features.




◆Illustration for the buttons

- power — unit unlock, turn on/off
- UP — increase (setting parameters of the functions)
- down — decrease (setting parameters of the functions)
- setting — Query and function setting
- timer — Clock and timer switch setting



# HiHeat Hot Water Heat Pump
## Outdoor Installation

**Outlet water temperature up to 80°C**

**Suitable for**

- 5 Star Hotels
- Hospitals
- Printing & Packaging
- Textile industry
- Food Processing Industry
- And other industries

HiHeat Hot Water Reversible Cycle Heat Pump, Air/Water cycle with its heat power capability of producing hot water up to 80°C is equipped with an inbuilt Grundfos circulation pump, patented Tube in Shell Heat Exchanger and Copeland compressor with R134A refrigerant.

Low Operating Cost

Environmentally Friendly

80°C Hot Water Outlet

EVI Technology

Multiple Protections

Wide Operation Range

### HiHeat Highlights

- **Low operating cost:** The operating cost is very low compared with conventional heat sources, such as electricity, coal, gas and diesel.
- **Environmental Friendly:** Adopting R134A refrigerant of lower GWP, means the air pollution emission is zero, which is very environmental-friendly compared with coal.
- **80°C Hot Water Outlet:** With stable hot water supply, the unit can be widely used in different industrial applications.
- **EVI Technology:** With EVI technology, the unit can work stably for hot water application.
- **Multiple-Protections:** The multiple protective design ensure the unit's long service life and stable operation.
- **Wide Operation Range:** With advanced 4-way-valve applied in the unit, the unit can be used in any environment from -7°C to 45°C.

# HiHeat Hot Water Heat Pump
Outdoor Installation

## HiHeat Hot Water Heat Pump Specification

| Specification | | Model / Code | | | |
|---|---|---|---|---|---|
| | | ATHP30 | ATHP50 | ATHP70 | ATHP120 |
| Hot Water Capacity (Air 20/15°C, Water 15-65°C) | kW | 19.0 | 35.0 | 70.0 | 135.0 |
| Power Input | kW | 5.3 | 9.2 | 19.0 | 38.6 |
| COP | W/W | 3.58 | 3.68 | 3.68 | 3.50 |
| Hot Water Volume | l/h | 326 | 602 | 1204 | 2321 |
| Max. Power Input | kW | 7.5 | 18.1 | 36.2 | 64.4 |
| Max. Running Current | A | 14.3 | 32.3 | 64.6 | 108.5 |
| Power Supply | V/Ph/Hz | | 380~415V/3N~/50Hz | | |
| Compressor Quantity | | 1 | 1 | 2 | 4 |
| Compressor Type | | | Scroll | | |
| Compressor Brand | | | Copeland | | |
| Fan Quantity | | 2 | 1 | 2 | 2 |
| Circulation Water Pump | | Grundfos CM 3-3 | Grundfos CM 5-3 | Grundfos CM 10-2 | - |
| Fan Motor Input | W | 200x2 | 750 | 750x2 | 1800x2 |
| Minimum Flow Required | m³/h | 3.3 | 6.0 | 12.0 | 23.2 |
| Water Pressure Drop | kPa | 25 | 38 | 42 | 45 |
| Water Connection | | 1.2" inch | DN40 flange | DN65 flange | DN80 flange |
| Noise | dB(A) | 58 | 65 | 68 | 70 |
| Air Volume | m³/h | 5000x2 | 12000x1 | 14000x2 | 23000x2 |
| Air Discharge Type | | Horizontal | Vertical | Vertical | Vertical |
| Max. Outlet Water temp. | °C | | 80 | | |
| Operation range | °C | | -7~45 | | |
| Condenser | | | Patented tube in Shell Heat Exchanger | | |
| Evaporator | | | High Efficiency Aluminium Finned Heat Exchange | | |
| Defrosting | | | by 4-Way Valve | | |
| Controller | | | PC Controller | | |
| Display | | | 5 inch Smart Central Display | | |
| Refrigerant | | | R134A | | |
| Cabinet | | | Eco-friendly Galvanized Metal / (Stainless Steel optional) | | |
| Net Weight | kg | 219 | 468 | 600 | 1050 |
| Gross Weight | kg | 238 | 512 | 643 | 1100 |
| Net Dimensions (L/W/H) | mm | 1175×400×1605 | 1195×980×1900 | 1930×1050×1980 | 2350×1150×2370 |

**Data sheet is based on capacities:**
**Test Conditions:** Ambient temperature 20°C/15°C, water circulation from 15°C to 65°C.
The data above is for reference only. For more specific data, please refer to the nameplate on the unit.

# Climatic Water/Water Heat Pump
## Water Source Heat Pump

### Atecpool Climatic Water Source Heat Pump

Water-to-Water Heat Pump is a system of heating or cooling that involves the transfer of heat by a circulating fluid (as water or vapor) in a closed system of pipes.

Atecpool Climatic ATWSHP Series for heating includes a special high temperature scroll compressor coupled with heat exchangers designed specifically for water heating, which provides unmatched efficiency and performance. The evaporator is a tube-in-shell heat exchanger that is capable of operation over a wide range of temperatures, and is more rugged than other types of evaporators. The condenser uses a close approach tube-in-shell heat exchanger as well.

**Perfect Solution for industrial water heating**

### Suitable for

- Pharmacy Industry
- Gas boilers replacement
- Dairy Requirement Sterilization
- Sewage Treatment
- Desalination Plants

**High COP** | **Various Applications** | **Higher ROI** | **More Reliable** | **Compact Design & Flexible installation**

### Climatic Series Highlights

- **IEER > High COP:** High heat transfer efficiency enables it to have high energy saving performance.
- **Various Applications:**
  Compatible with existing water chillers for hot water & cooling
  Compatible with existing cooling tower for factory process cooling & hot water
- **Higher ROI:** Low cost water heating and free air cooling, flexible installation and combination solution equals to high ROI in the long run.
- **More Reliable:** Durable and reliable; the unit can run stably all year around without being affected by ambient temperature.
- **Compact Design & Flexible installation:** The multi-connected heat exchanger design makes it compact, thus able to adjust to various installation locations.

# Climatic Water/Water Heat Pump
Water Heat Pump

### Atecpool Climatic Water Source Heat Pump

### Climatic Series Specifications

- Compact water-to-water heat pump for indoor or outdoor installation.
- With suction gas cooled scroll compressor.
- With extensive tube-in-shell Heat Exchanger as tube evaporator and coaxial condenser.
- Refrigerant cycle with thermostatic expansion valve, filter, gas-liquid separator, high and low pressure switches.
- With efficient automatic defrosting by hot gas principle.
- Electric and terminal box, with control and disturbance signaling.
- Heating regulator for mounting to walls.
- Refrigerant as R134A.

### Water Connections

- Water connections to be done on site.
- Heating and condensation connections of flexible pipes with external thread.

### Condensation Connections

- The water connections and the drain pipelines must be protected against frost on sites in freezing climates.
- It's always recommended and necessary to insulate the water pipes from W2W to water bodies when there is a long distance between them, to maintaining the heat.

# Climatic Water/Water Heat Pump
## Water Source Heat Pump

### Atecpool Climatic Water Source Heat Pump Specification

| Specification | | | Model / Code | | |
|---|---|---|---|---|---|
| | | | ATWSHP210 | ATWSHP230 | ATWSHP270 |
| Heating Capacity* | | kW | 33.6 | 67.1 | 134.2 |
| Cooling Capacity* | | kW | 25.5 | 50.9 | 101.9 |
| Power Input* | | kW | 7.9 | 15.8 | 31.6 |
| COP* | | W | 4.24 | 4.24 | 4.24 |
| EER* | | W | 3.16 | 3.20 | 3.22 |
| Heating Capacity** | | kW | 28.9 | 57.8 | 115.6 |
| Cooling Capacity** | | kW | 18.9 | 37.8 | 75.6 |
| Power Input** | | kW | 10.4 | 20.8 | 41.7 |
| COP** | | W | 2.77 | 2.77 | 2.77 |
| EER** | | W | 1.78 | 1.81 | 1.82 |
| Max. Power Input | | kW | 15 | 25 | 46 |
| Max. Running Current | | A | 25 | 45 | 90 |
| Power Supply | | V / Ph / Hz | 380-415V/3N-/50Hz | | |
| CompressorType | | | Copeland ZW150KBE-TFP-522 Scroll Compressor | | |
| Compressor Quantity | | | 1 | 2 | 4 |
| Evaporator | Type | | Tube in Shell Heat Exchanger | | |
| | Water Flow | m³/h | 5.0 | 10.0 | 20.0 |
| | Water Pressure Drop | kPa | 20.4 | 38.6 | 54.5 |
| | Water Connection | | DN32 | DN80 | DN80 |
| Condenser | Type | | Tube in Shell Heat Exchanger | | |
| | Water Flow | m³/h | 4.6 | 9.1 | 18.2 |
| | Pressure Drop | kPa | 16.5 | 30.9 | 41.5 |
| | Water Connection | | DN32 | DN80 | DN80 |
| Noise | | dB(A) | 65.0 | 68.0 | 69.0 |
| Refrigerant | | | R134A | | |
| Controller | | | Multi-function Controller | | |
| Display | | | 5 Inch Colorful Touch Display | | |
| Max Outlet Water Temperature | | °C | 80 | | |
| Cabinet | | | Eco-friendly Galvanized Metal / Stainless Steel for option | | |
| Net Weight | | kg | 202 | 441 | 866 |
| Net Dimensions (L/W/H) | | mm | 1030 / 640 / 730 | 1172 / 900 / 1365 | 1600 / 1130 / 1500 |
| Shipping dimensions (L/W/H) | | mm | 1130 / 710 / 910 | 1360 / 960 / 1520 | 1790 / 1210 / 1670 |

**Note:**
*Testing Condition Evaporator Side inlet/outlet: 20/15°C; Condenser Side inlet/outlet: 45/55°C
**Testing Condition Evaporator Side inlet/outlet: 20/15°C; Condenser Side inlet/outlet: 65/75°C

# Atecpool Air
# Dehumidification

## Atecpool Air Pool Dehumidification


Automatic Temperature Detection

Exclusive Design

Ultra-thin Casing

Epoxy Fin Air Exchanger

Super Silent Operation 44~47 dB

High Efficiency

### Wall Mounted Dehumidifiers for indoor pool installation

Through absorbing clammy air and transferring it to warm and dry air, Atecpool Air Dehumidifier can easily tackle problem that cause condensation and furniture corrosion. Atecpool Air Dehumidifier for indoor pool installation. Wall mounted models for humidity controls in indoor swimming pools. Extremely silent operation (44-47 dB(A)) and high energy saving with R410A compressors and a built-in electronic thermostat.

1 **Epoxy Fin Air Exchanger**
Air Dehumidifier adopt epoxy fin air exchanger which is featured with great anti-corrosion performance, ensuring the units longer life.

2 **Super Silent Operation**
Heat Pump Dehumidifiers utilise DC fan motors to circulate air, allowing the units to work silently.

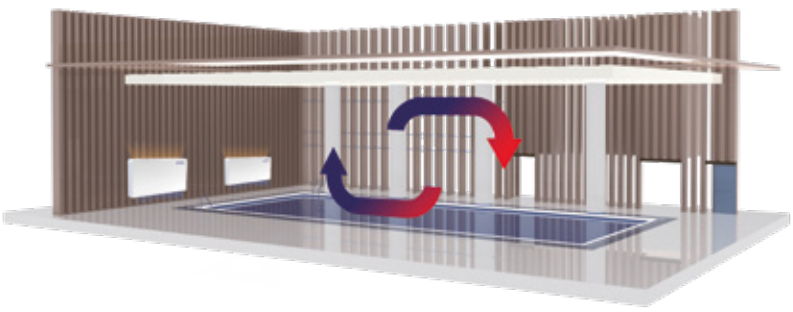
3 **Ultra-Thin Casing**
With a compact inner structure our Air Dehumidifiers feature an ultra-thin casing 200mm thick, requiring less space in the pool house.

4 **High Working Efficiency**
The dehumidification volume reaches as much as 3.0 L/h at 30˚C ambient temperature and 80% relative humidity.

5 **Exclusive Design**
Atecpool Air Dehumidifier provides two exclusive designs. Users can choose the white glass panel or black glass panel casing according to your preference.

6 **Automatic Temperature Detection**
The unit is equipped with a sensor that detects the ambient temperature. If the ambient temperature exceeds 30°C, the unit will automatically shut down to protect the equipment.

## Atecpool Air Dehumidifier



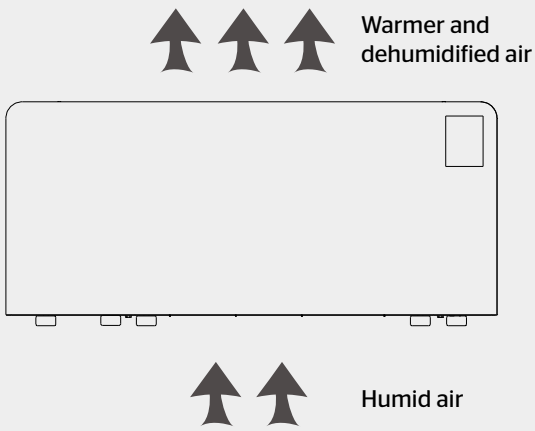
Ultra-Thin Casing & Wall Mounted Installation

# **Atecpool Air**
# Dehumidifier Specifications

| Model | Unit | ATEC22 | ATEC35 | ATEC45 |
|---|---|---|---|---|
| Rated Capacity | L/h | 2.2 | 3.5 | 4.5 |
| Dehumidification capacity per day | L | 53 | 84 | 108 |
| Max pool area | $m^2$ | 42 | 60 | 83 |
| Air Volume | $m^3/h$ | 450 | 600 | 750 |
| Noise Level | dB(A) | 44 | 46 | 47 |
| Rated Voltage / Frequency | / | 220-240V~/50Hz | 220-240V~/50Hz | 220-240V~/50Hz |
| Rated Power Input* | kW | 0.9 | 1.1 | 1.95 |
| Rated Running Current* | A | 4.0 | 5.0 | 8.8 |
| Max Power Input | kW | 1 | 1.3 | 2.3 |
| Max Running Current | A | 4.3 | 5.85 | 10 |
| Relative Humidity | %RH | 40~100 | 40~100 | 40~100 |
| Running Ambient Temperature | ˚C | 10~30 | 10~30 | 10~30 |
| Dimensions (LxWxH) | mm | 1295x202x647 | 1495x202x647 | 1695x202x647 |
| Refrigerant | / | R410A / R32 | R410A / R32 | R410A / R32 |
| Condensation Pipe Diameter | mm | 16 | 16 | 16 |
| Testing Condition : 30˚C Ambient Temperature, 80% Relative Humidity | | | | |

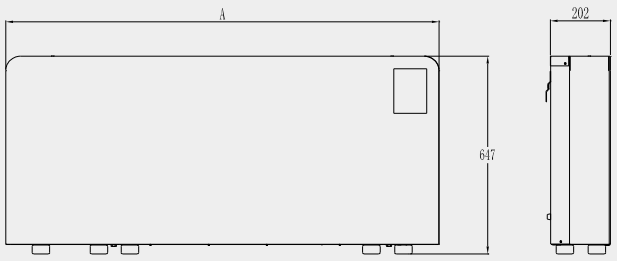
## Working principle

The unit works by drawing moist air over a refrigerated coil with a small fan. The cold coil of the refrigeration device condenses the water, which is removed, then the air is reheated by the hot coil. This process works most effectively with higher ambient temperatures with a high dew point temperature.




## Dimensions

| Code | ATEC22 | ATEC35 | ATEC45 |
|---|---|---|---|
| | (mm) | (mm) | (mm) |
| Length | 1295 | 1495 | 1695 |



# **Dantherm**
# Dehumidification

**CDP Pool Dehumidification** - Efficient dehumidification for aggressive environments

## Fully automatic operations

The small units are fully automatic. They are supplied with electronic control, built in adjustable hygrostat and a visual display showing the operation modes.

The large units are supplied with electronic control and prepared for external hygrostat connection. An electronic module provides a visual display of working modes while the control panel provides push button selection of "air heating" and "continuous fan run". The control panel can be moved to either side of the unit to suit plant room configuration..

## Applications CDP and CDP (T)

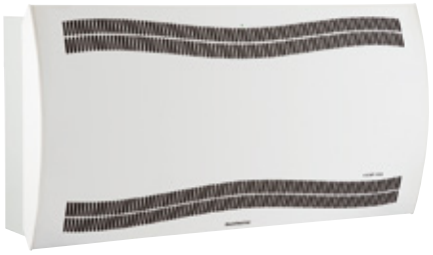
- Swimming pools
- Spas
- Shower rooms
- Gymnasiums
- Larger private pools
- Hotel pools and spas

## Function

An integral fan draws humid air into the dehumidifier through a filter. Here the air passes through an evaporator, where the water vapour condenses on a cold surface and falls as water droplets, into the drip tray and then into the drain. The cooled air then passes through a condenser and picks up not only the heat equivalent of the previous cooling, but also the heat equivalent of the electrical input to the unit. Consequently, the air leaves the unit drier and several degrees warmer. The repeated circulation of air through the unit reduces the relative humidity, giving very rapid but gentle drying.

In swimming pool halls with large areas of windows, a solution in which the dehumidified and warm supply air is led through pipes under the floor and blown under the windows is a reliable choice. In this way condensing of the windows can be avoided.

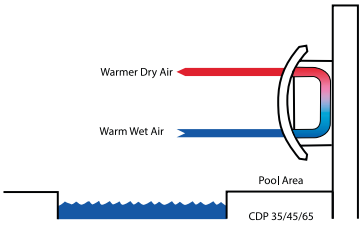
## Wall Mounted Version CDP 40/50/70



Wall mounted version CDP 40/50/70

**Dimensions CDP 40/50/70**

| | Height (mm) | Width (mm) | Depth (mm) |
|---|---|---|---|
| CDP 40 | 770 | 1010 | 326 |
| CDP 50 | 770 | 1160 | 326 |
| CDP 70 | 800 | 1495 | 326 |




CDP 40/50/70 units are designed for installation directly in the pool hall or area to be dehumidified.

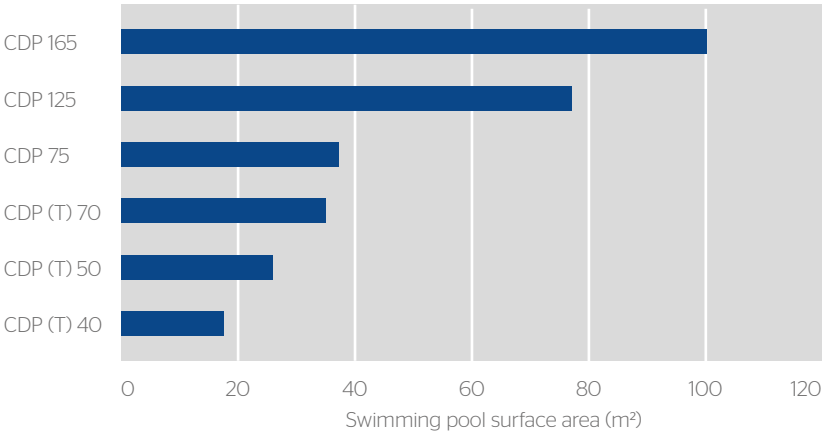
## Remote control DRC1

A newly developed remote control allows reading and setting of relative humidity and temperature, alarms and service information.

**Technical data CDP 40/50/70**

| | Dehumidification capacity at 28°C / 60% RH l/24h | Air flow (m³/h) | Operating range / humidity %RH | Operating range / temperature (°C) | Weight (kg) |
|---|---|---|---|---|---|
| CDP 40 | 34 | 400 | 40 - 100 | 10 - 36 | 56 |
| CDP 50 | 52 | 680 | 40 - 100 | 10 - 36 | 65 |
| CDP 70 | 69 | 900 | 40 - 100 | 10 - 36 | 75 |

## Quick selection guide




## Technical data CDP(T) 40/50/70/75/125/165

Which unit to choose in a swimming pool hall depends on the surface area. This graph is intended as a guide only, providing approximate recommendations. The selection of the correct dehumidifier for swimming pool halls requires the consideration of several factors, e.g. air and water temperatures, usage levels and whether a floating cover is used.

Please consult your supplier for professional guidance as unit selection should be carried out only by qualified personnel to get an optimum solution.

# Dantherm
# Dehumidification

**CDP Pool Dehumidification** - Efficient dehumidification for aggressive environments

## Through-Wall Mounted Version CDP (T) 40/50/70

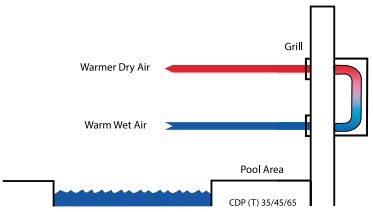
Through-wall mounted version CDP (T) 35/45/65

**Technical data CDP (T) 40/50/70**

| | Dehumidification capacity at 28°C / 60% RH l/24h | Air flow (m³/h) | Operating range / humidity %RH | Operating range / temperature (°C) | Weight (kg) |
|---|---|---|---|---|---|
| CDP 40T | 29 | 250 | 40 - 100 | 10 - 36 | 60/57 |
| CDP 50T | 42 | 500 | 40 - 100 | 10 - 36 | 74/68 |
| CDP 70T | 66 | 750 | 40 - 100 | 10 - 36 | 101/95 |

**Dimensions CDP (T) 40/50/70**

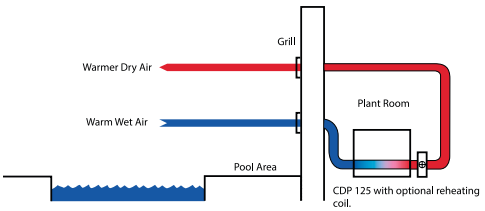
| | Height (mm) | Width (mm) | Depth (mm) |
|---|---|---|---|
| CDP 40T | 680 | 890 | 290 |
| CDP 50T | 680 | 1192 | 290 |
| CDP 70T | 680 | 1735 | 290 |




CDP(T) 35/45/65 units are designed for installation in an adjacent room and are supplied with a through-the-wall duct kit with supply and return air grills.

## Ducted Version CDP 75/125/165

Ducted version CDP 75/125/165




The humid air from the water's surface passes through a dehumidifier, leaving the supply air drier and several degrees warmer.

**Technical data CDP 75/125/165**

| | Dehumidification capacity at 28°C / 60% RH l/24h | Air flow (m³/h) | Operating range / humidity %RH | Operating range / temperature (°C) |
|---|---|---|---|---|
| CDP 75 | 74 | 1500 | 40 - 100 | 20 - 38 |
| CDP 125 | 124 | 2500 | 40 - 100 | 20 - 38 |
| CDP 165 | 162 | 3600 | 40 - 100 | 20 - 38 |

**Dimensions CDP 75/125/165**

| | Heght (mm) | Width (mm) | Depth (mm) | Weight (kg) |
|---|---|---|---|---|
| CDP 75 | 650 | 1155 | 725 | 130 |
| CDP 125 | 850 | 1300 | 900 | 160 |
| CDP 165 | 975 | 1400 | 1010 | 190 |

## Flexible installation of the CDP

The CDP units are highly flexible regarding installation. They are designed for installation in plant rooms, with ducted supply and return air grills, but can also be installed directly in the room that needs dehumidification. A range of options are available for the CDP to meet individual requirements, including heating coils, outdoor air connection, wall-mount kit and floor mount kit. The CDP is also available with a water-cooled condenser allowing the excess heat to be used for pool or domestic hot water. The fresh air discharge can be from the top or from the side opposite to the air inlet. Both evaporator and condenser coils are epoxy-coated for higher corrosion resistance.

## Features and benefits

- High quality product manufactured to exact standards
- Low energy consumption and impressive functionality
- Silent operation
- Pleasant design
- Easy to operate and control
- Designed to suit any plant room configuration
- Epoxy-coated coils

# **Thermalec**
# Titanium Electrical Heater

## The Thermalec pool and spa heater range

Built using titanium elements, to the same exact standards traditionally associated with Thermalec® heaters, the THR TITANIUM range fulfils all the required electrical safety standards.

## Size range from 3kW to 168kW

- Unique spiral flow allows efficient heat removal from the elements, minimising the scale and sediment build up.
- Unique design ensures cooler water from the filter pump does not strike the elements directly (giving longer life).
- Air generated from the pump passes harmlessly around the sides of the baffles and across the top of the heater elements (The heat pumps heat both air and water).
- The control thermostat is positioned to sense the temperature of incoming water and controls the pool to within 1°C.
- The safety thermostat senses the water temperature leaving the heater.
- Thermalec® heaters can be used in conjunction with other heating systems to provide year round heating solutions for your pool or spa.
- Each heater is designed with its own simple self diagnostic system.
- Heating elements are always submerged.

## Standards

**Thermalec® pool and Spa heaters are CE marked and comply with:**

EU Council Directive 89/336/EEC & 93/068/EEC on Electromagnetic compatibility

EU Council Machinery Directive 98/37/EEC

EU Council Low Voltage Directive 2006/95/EEC & 72/23EEC

**Harmonised Standards:** EN55014, EN55104, EN5501, EN5502, CEI801-2, CEI801-3 and EN60335-2-35

## Control and indication

**Water temperature cut-out:** Factory set to trip at water outlet temperature of 52°C. Manual reset on front panel

**Thermostats:** Pressurised liquid filled capillary type

**Pool temperature control:** Analogue dial, calibrated 15°C to 45°C and graduated at 1°C intervals.

**Mains indicator lamps:** Red (mains power is on), Amber (filter pump interlock power present).

**Status indicator lamps:** Red (heater's ON/OFF switch ON), White (safety thermostat trip armed), Amber (pump interlock relay OK), Green (heating elements powered)

## Materials of Construction

**Heater vessel:** Fusion epoxy coated cast iron

**Element holding plate:** uPVC

**Gasket:** Silicone rubber

**Water connections:** uPVC socket

**Heater elements:** Titanium sheath

**Electrical enclosure:** Powder coated steel

## Operating data

**Water inlet/outlet:** Socket for 50mm or 2" NB pipe

**Max. Water temperature:** 52°C heater outlet

**Operating pressure:** 2.0 bar max.

**Ambient temperature:** 40°C max.

**Pool temperature control range:** 15°C to 45°C

**Thermostat operating difference:** 0.5 C°

# Thermalec
## Titanium Electrical Heater

### The Thermalec pool and spa heater range - main features

The heaters in the Thermalec® pool and spa heater range are classified in series according to the body size. There are six series in the range. Each series offers a choice of nominal power rating. The following tables summarise the main features of the range and power ratings available in each series.

| Feature | Series Reference | | | | | |
|---|---|---|---|---|---|---|
| | 12THR | 24THR | 36THR | 72THR | 120THR | ZENITH Ti |
| Body in robust fusion epoxy coated cast iron | ● | ● | ● | ● | ● | ● |
| Elements in corrosion resistant titanium | ● | ● | ● | ● | ● | ● |
| Suitable for sea / salt-water pools and spas | ● | ● | ● | ● | ● | ● |
| Pressure: tested to 4 bar, operating 2 bar max. | ● | ● | ● | ● | ● | ● |
| Safety pressure relief valve(s) | ● | ● | ● | ● | ● | ● |
| Easy installation – uPVC solvent weld sockets | ● | ● | ● | ● | ● | ● |
| Easy element replacement | ● | ● | ● | ● | ● | ● |
| Water drain for winterisation or repair | ● | ● | ● | ● | ● | ● |
| Removable top plate for easy vessel inspection | ● | ● | ● | ● | ● | ● |
| Water flow direction easy to reverse | ● | ● | ● | ● | ● | ● |
| Premium quality electrical components | ● | ● | ● | ● | ● | ● |
| Heavy duty contactors | ● | ● | ● | ● | ● | ● |
| Power isolation ON/OFF switch | ● | | | | | |
| Power isolation circuit breakers | | ● | ● | ● | ● | ● |
| Filter pump safety interlock | ● | ● | ● | ● | ● | ● |
| Fused control circuit protection | ● | ● | ● | ● | ● | ● |
| Liquid filled capillary control and safety thermostats | ● | ● | ● | ● | ● | ● |
| Two stage temperature controller | | | | ● | ● | ● |
| Time delay switch powers elements in 2 stages | | | | ● | | |
| Time delay switch powers elements in 3 stages | | | | | ● | |
| Time delay switch powers elements in 4 stages | | | | | | ● |
| At least 6 indicator lamps to monitor operation | ● | ● | ● | ● | ● | ● |
| Analogue heater outlet water temperature indicator | | | ● | ● | ● | ● |
| High temperature safety trip with manual reset | ● | ● | ● | ● | ● | ● |
| Protection in the event of pool filter pump failure | ● | ● | ● | ● | ● | ● |
| Special design enclosure for spa applications | ● | | | | | |
| Enhanced "Deluxe" model available | | ○ | ○ | | | |
| Suitable for fish pond and aquarium use | ○ | ○ | ○ | ○ | ○ | ○ |
| Special models available for marine, central heating & renewable energy applications | ○ | ○ | ○ | ○ | ○ | ○ |
| Available for non-standard power supplies | ○ | ○ | ○ | ○ | ○ | |
| CE Mark - compliant with all relevant EU Directives | ● | ● | ● | ● | ● | ● |
| Two year return-to-base guarantee | ● | ● | ● | ● | ● | ● |

● *Standard feature* ○ *Available as an option*

## Power ratings of Thermalec® heater standard models

**Standard Models - Installed nominal power rating (kW)***

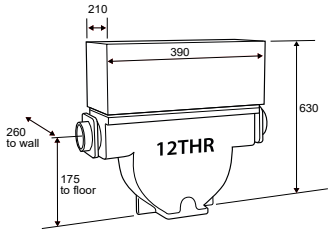
| Series Ref | 3 | 4 | 6 | 7.5 | 8 | 9 | 10 | 12 | 15 | 16 | 18 | 21 | 24 | 30 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 144 | 168 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12THR | | | | | | | | | | | | | | | | | | | | | | | | |
| 24THR | | | | | | | | | | | | | | | | | | | | | | | | |
| 36THR | | | | | | | | | | | | | | | | | | | | | | | | |
| 72THR | | | | | | | | | | | | | | | | | | | | | | | | |
| 120THR | | | | | | | | | | | | | | | | | | | | | | | | |
| ZENITH Ti | | | | | | | | | | | | | | | | | | | | | | | | |

*Single phase power supply only.* *Single or three phase power supply.* *Three phase power supply only.*

*based on standard power supply 230V/1 ph/50Hz or 400V/3ph/50Hz

# Thermalec
## Titanium Electrical Heater

### 12THR Series (3kW - 12kW)

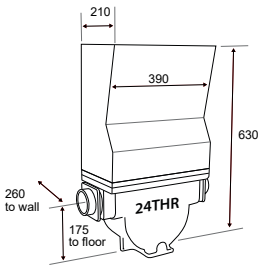



| Code | Standard Power Supply: 230V/1ph/50Hz or 400V/3ph/50Hz | | | | |
|---|---|---|---|---|---|
| | Load (kW) | Current (Amps) 1-ph/3-ph | Elements (no. x nominal kW) | 1-phase version | 3-phase version |
| 12THRX3 | 3 | 14/n.a. | 1 x 3 kW | Yes | No |
| 12THRX4 | 4 | 17/n.a. | 1 x 4 kW | Yes | No |
| 12THRX6 | 6 | 27/n.a. | 2 x 3 kW | Yes | No |
| 12THRX7.5 | 7.5 | 33/11 | 3 x 2.5 kW | Yes | Yes |
| 12THRX9 | 9 | 40/13 | 3 x 3 kW | Yes | Yes |
| 12THRX12 | 12 | 53/17 | 3 x 4 kW | Yes | Yes |

| Water Flow Rate Ranges | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 3 kW | 4 kW | 6 kW | 7.5 kW | 9 kW | 10 kW | 12 kW |
| Max. (hard water) l/min | 152 | 152 | 152 | 152 | 152 | 152 | 152 |
| Max. (soft water) l/min | 76 | 76 | 76 | 76 | 76 | 76 | 76 |
| Minimum l/min | 4.5 | 6 | 9 | 11 | 14 | 15 | 18 |

**Packed dimensions:** 425 x 450 x 190mm
**Packed weight:** 26kg

### 24THR Series (15kW - 24kW)




| Code | Standard Power Supply: 400V/3ph/50Hz | | |
|---|---|---|---|
| | Load (kW) | Current (Amps) | Elements (no. x nominal kW) |
| 24THRX15 | 15 | 22 | 6 x 2.5 kW |
| 24THRX18 | 18 | 26 | 6 x 3 kW |
| 24THRX21 | 21 | 31 | 3 x 4 kW + 3 x 3 kW |
| 24THRX24 | 24 | 35 | 6 x 4 kW |

| Water Flow Rate Ranges | | | | |
|---|---|---|---|---|
| | 15 kW | 18kW | 20kW | 24kW |
| Max. (hard water) l/min | 303 | 303 | 303 | 303 |
| Max. (soft water) l/min | 152 | 152 | 152 | 152 |
| Minimum l/min | 23 | 27 | 32 | 36 |

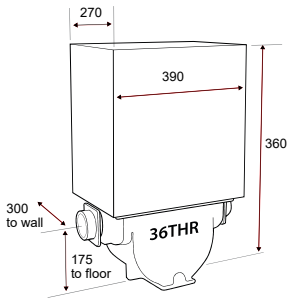
**Packed dimensions:** 730 x 520 x 300mm
**Packed weight:** 42kg

# Thermalec
## Titanium Electrical Heater

### 36THR Series (30kW - 36kW)

| Code | Standard Power Supply: 400V/3ph/50Hz | | |
|---|---|---|---|
| | Load (kW) | Current (Amps) | Elements (no. x nominal kW) |
| 36THRX30 | 30 | 44 | 3x4 kW + 6x3 kW |
| 36THRX36 | 36 | 53 | 9x4 kW |

| Water Flow Rate Ranges | | |
|---|---|---|
| | 30 kW | 36 kW |
| Max. (hard water) l/min | 300 | 300 |
| Max. (soft water) l/min | 150 | 150 |
| Minimum l/min | 46 | 55 |

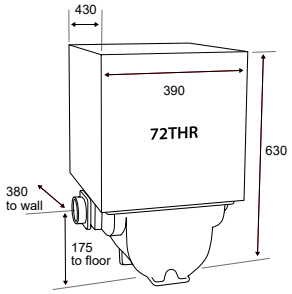



**Packed dimensions:** 660 x 450 x 330mm
**Packed weight:** 52kg

### 72THR Series (48kW - 72kW)

| Code | Standard Power Supply: 400V/3ph/50Hz | | |
|---|---|---|---|
| | Load kW | Current Amps | Elements (no. x nominal kW) |
| 72THRX48 | 48 | 73 | 12x4 kW |
| 72THRX60 | 60 | 91 | 15x4 kW |
| 72THRX72 | 72 | 108 | 18x4 kW |

| Water Flow Rate Ranges | | | |
|---|---|---|---|
| | 48 kW | 60 kW | 72 kW |
| Max. (hard water) l/min | 300 | 300 | 300 |
| Max. (soft water) l/min | 150 | 150 | 150 |
| Minimum l/min | 73 | 91 | 109 |

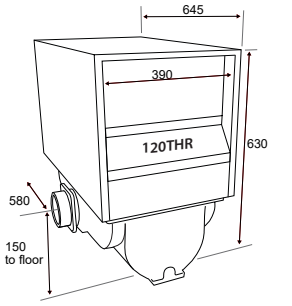



**Packed dimensions:** 660 x 450 x 470mm
**Packed weight:** 81kg

### 120THR Series (84kW - 120kW)

| Code | Standard Power Supply: 400V/3ph/50Hz | | |
|---|---|---|---|
| | Load (kW) | Current (Amps) | Elements (no. x nominal kW) |
| 120THRX84 | 84 | 122 | 21x4 kW |
| 120THRX96 | 96 | 140 | 24x4kW |
| 120THRX108 | 108 | 157 | 27x4 kW |
| 120THRX120 | 120 | 174 | 30x4 kW |

| Water Flow Rate Ranges | | | | |
|---|---|---|---|---|
| | 84 kW | 96 kW | 108 kW | 120 kW |
| Max. (hard water) l/min | 700 | 700 | 700 | 700 |
| Max. (soft water) l/min | 350 | 350 | 350 | 350 |
| Minimum l/min | 127 | 146 | 164 | 182 |




**Packed dimensions:** 750 x 580 x 750mm
**Packed weight:** 140kg

# Pool Heating
## Plate Type Heat Exchangers

### Standard Plate Heat Exchangers AISI 316 / AISI 316L

Atecpool offers 'Plate Type Heat Exchangers': copper brazed, semi-welded and all welded plate heat exchangers. Big range of plate type heat exchangers. Atecpool has the optimal technical solution for any possible task, with connection sizes from Ø15mm - Ø500mm, covering a liquid flow of 50L/hours - 2000 $m^3$/hour.

**Hightlights:**

- High operation safety
- Exact energy-transfer
- Low running costs
- Energy saving
- Environmentally-friendly

### Advantages

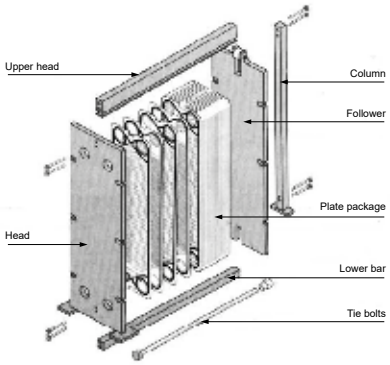
- The plates and plate patterns are constructed to maintain a high thermal efficiency with a low pressure drop
- There are two pattern designs available with different pressing angles giving respectively high/low turbulence flow, dependant on the given selection
- The inlet channels allow for maximum strength in the inlet area, whilst maintaining minimal contact points, reducing blockage at the flow distribution zone
- The inlet design ensures even distribution of the liquids across the heating surface
- The gasket is placed in a dedicated retaining gasket groove. This secures the elasticity of the gasket even after a long time of compression

### Plate Design

The construction of the inlet part makes for a perfect distribution of the liquids across the heating surface. The inlet part is increased and supplied with grooves preventing "dead spots" which could cause the growth of bacteria in the plate heat exchanger. The inlet with grooves secures a strong inlet part with a minimum number of contact points.

The inlet parts are constructed with a leakage drain zone fulfilling the AAA specifications.

The heat transfer plates are designed with a gap between plates up to 11mm depending on the plate type. This is because the pattern of the plate pressing has horizontal waves maintaining no "plate contact points" in the flow direction, the flow channels remain free of obstacles allowing the media/particles to flow freely.




Note: Please ask for selection of Heat Exchanger for your pool. Selection chart/datasheet on request.