



Duratech[™]
heat pumps 

Dura. 

Dura- heat pumps

dura- heat pumps can save you up to 80% in operating costs.

Whether you just want to extend your swimming season or swim all season in a warm comfortable pool, the Dura- heat pump can pay for itself in just a few years with the operation costs savings.

highly efficient and economical

The energy is collected from the air outside and transferred to the pool water. For each kW consumed by the Duratech® heat pump, 5kW or more can be returned to the pool.

use

The Duratech® heat pump must be installed outside. It will heat the pool from April to October.

environment

Dura- heat pumps are less harmful to the environment because more than 80% of the energy produced is collected from the outside air and therefore purely natural.

Also the gas used, R410a, has no harmful effect on the ozone layer.

constructed for durability and longevity

Using advanced and high quality materials like PVC and Titanium for the heat exchanger means it can resist erosion from chlorine in the water. Also, the Titanium exchanger is oversized to improve efficiency.

easy installation

The unit is intelligently designed and remarkably compact for easy installation.

For example: the integrated pressure switch senses the water pressure and automatically starts the heater when the pool pump starts, and stops when the pump shuts off.

advanced control

The integrated microprocessor monitors all the sensors and controls the device without any intervention of the user. Electronic display and control with easy operation is standard.

running quietly

The use of a high efficient, low sound rotary or scroll compressor, a low noise two speed fan and an oversized heat exchanger, makes the unit extremely quiet in operation. For example: The Dura-10 at 10m distance produces only 32db(A).

features

- High coefficient of performance.
- Easy digital temperature control.
- All functions are microprocessor controlled.
- Quiet running with low sound rotary and scroll compressors.
- Twin speed fan for very low noise running.
- Using R410a refrigerant for an environment friendly operation and higher efficiency.
- Titanium heat exchanger resistant to salt and chlorine.

how does it work?

- Duratech® heat pumps utilise the sun's free heat by collecting and absorbing energy from the outside air. This energy is then transferred to the pool water.
- Your existing pool pump circulates the water through the heater and warms the pool.
- The unit contains a fan that draws in outside air and directs it over the surface of the EVAPORATOR (energy collector).
- The liquid refrigerant within the EVAPORATOR coil absorbs the heat from the outside air and the refrigerant becomes a gas.
- The warm gas passes through the compressor where it is compressed to form a very hot gas, which then passes through the CONDENSER (water heat exchanger).
- It is here that the heat exchange occurs as the hot gas releases the heat to the cooler swimming pool water circulating through the coil.
- The pool water becomes warmer and the hot gas is cooling down as it flows through the CONDENSER coil, returns to its liquid form and, after passing through the expansion valve, the whole process begins again.

							
	Dura-7	Dura-10	Dura-13	Dura-18	Dura-22	Dura-22T	Dura-26T
Heating capacity A25/W25	6.5kW 22,200BTU/hr	9.5kW 32,400BTU/hr	13kW 44,500BTU/hr	18kW 61,500BTU/hr	22kW 75,000BTU/hr	22kW 75,000BTU/hr	26kW 89,000BTU/hr
Heating capacity A15/W25	6kW 20,500BTU/hr	9kW 30,700BTU/hr	11.8kW 42,800BTU/hr	16.5kW 59,400BTU/hr	20.7kW 72,700BTU/hr	20.7kW 72,700BTU/hr	24.2kW 83,000BTU/hr
Power input	1.1kW	1.5kW	2.2kW	3kW	3.8kW	3.8kW	4.6kW
Maximum power input	1.4kW	2.1kW	3kW	3.6kW	4.5kW	4.5kW	5.2kW
Efficiency A25/W25	5.9 C.O.P.	6.3 C.O.P.	6.3 C.O.P.	6.3 C.O.P.	5.8 C.O.P.	5.8 C.O.P.	5.7 C.O.P.
Maximum volume*	30m ³	40m ³	60m ³	80m ³	90m ³	90m ³	130m ³
Nominal current	4.8A	6.7A	10.4A	13.4A	16.5A	6.7A	8.1A
Maximum current	6.4A	9.2A	14.2A	18.7A	21A	9.7A	11.8A
Peak current	24A	35A	45A	61.5A	75.5A	35.8A	43.2A
Power supply	220–240V Single Phase 50Hz	220–240V Single Phase 50Hz	220–240V Single Phase 50Hz	220–240V Single Phase 50Hz	220–240V Single Phase 50Hz	380V Three Phase 50Hz	380V Three Phase 50Hz
Compressor type	Rotary	Rotary	Rotary	Scroll	Scroll	Scroll	Scroll
Refrigerant	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Amount of refrigerant	0.8kg	0.9kg	1.3kg	1.8kg	2.3kg	2.3kg	3.2kg
Pressure gauge	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fan power	90W	120W	120W	150W	200W	200W	200W
Rotational frequency of the fan	850RPM/ 750RPM	850RPM/ 750RPM	850RPM/ 750RPM	850RPM/ 750RPM	830RPM/ 730RPM	830RPM/ 730RPM	830RPM/ 730RPM
Air flow	2100m ³ /hr/ 1800m ³ /hr	2300m ³ /hr/ 2000m ³ /hr	2300m ³ /hr/ 2000m ³ /hr	3200m ³ /hr/ 2700m ³ /hr	5000m ³ /hr/ 4300m ³ /hr	5000m ³ /hr/ 4300m ³ /hr	5000m ³ /hr/ 4300m ³ /hr
Fan direction	Horizontal	Horizontal	Horizontal	Horizontal	Vertical	Vertical	Vertical
Noise	50dB (A)	51dB (A)	51dB (A)	54dB (A)	58dB (A)	58dB (A)	58dB (A)
Water connection	50mm	50mm	50mm	50mm	50mm	50mm	50mm
Nominal water flow	3–5m ³ /hr	5–7m ³ /hr	6–8m ³ /hr	8–10m ³ /hr	10–12m ³ /hr	10–12m ³ /hr	10–12m ³ /hr
Maximum water pressure drop	12kPa	15kPa	15kPa	16kPa	16kPa	16kPa	16kPa
Nett dimensions (L x W x H)	746 x 290 x 570mm	956 x 372 x 600mm	956 x 372 x 600mm	1115 x 470 x 870mm	744 x 762 x 980mm	744 x 762 x 980mm	744 x 762 x 980mm
Shipping dimensions (L x W x H)	850 x 310 x 650mm	1040 x 415 x 680mm	1040 x 415 x 680mm	1120 x 480 x 940mm	805 x 820 x 1050mm	805 x 820 x 1050mm	805 x 820 x 1050mm
Nett weight	35kg	49kg	55kg	117kg	102kg	102kg	102kg
Shipping weight	43kg	61kg	67kg	128kg	130kg	130kg	130kg

measuring conditions:

- Outdoor air temperature: 25°C
- Inflowing water temperature: 25°C
- Relative humidity: 65%

* Maximum volume for a pool with cover, free from wind and exposed to the sun, sited in a low water table, May to September use. If the heat pump is required to be used for longer periods please seek advice.

