## Swimming Pool Heat Pump



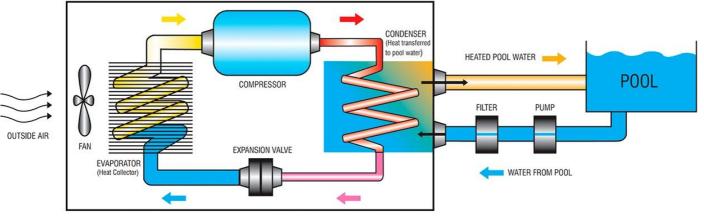
Lailey & Coates was founded with the single aim of producing quality heat pumps. The company is a collaboration between Derek Coates, one of the UK's most successful entrepreneurs and Simon Lailey, a heating engineer with a passion for heat pumps. Following over 7 years of intensive product development by Simon and his team, Lailey and Coates now offers a full range of swimming pool heat pumps that we believe provide the best renewable heating solution possible for your pool.



### How Does a Heat Pump Work?

Heat pumps extract the ambient temperature from the surrounding air and is then absorbed by the refrigerant gas, it is then compressed, this causes the heat to rise, the heat is then returned to your pool water via the Titanium Heat Exchanger coil.

#### **HEATING SEQUENCE**



SCHEMATIC ILLUSTRATION

## Lailey&Coates swimming pool heat pumps

A Lailey&coates swimming pool heat pump is one of the most economical and energy efficient systems to heat a swimming pool. Using free renewable energy from the air, a Lailey&coates swimming pool heat pump can be up to 5 times more efficient than a traditional heating system, lengthening your swimming season from not only summer months, but also spring, autumn and even winter time!



#### Available in various colours to best suit your swimming pool environment

Racing green . silver . black . white . bronze

#### . Ecological and economical heating

By making use of the renewable energy in the outside air, our pool heat pumps consume much less energy with low carbon emission, using environment friendly advanced refrigerant R410A which has no effect on Ozone.

#### . Titanium heat exchanger

An advanced titanium heat exchanger guarantees a long life span protecting from corrosion and rust allowing use with all types of water treatment such as chlorinate, iodine, bromine and even salt water.

#### . Multiple functions

- Cooling and heating functions available;
- Auto operation, Auto-restart, Auto defrost
- Timer on/off: no human attendance is required
- Wide ambient working condition: -5°C to 43°C

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#### . Operation Protection

To guarantee the stable running of the unit, multiple protection devices have been implemented which include insufficient water flow protection, high/low pressure protection, overload protection, compressor protection.

#### . Self-diagnosis

The swimming pool heat pump control unit continuously runs self-diagnosis checks displaying live data on the LCD screen for simple observation.



## Swimming Pool Heat Pump Technical Specification

condition		LCSPC-40	LCSPC-55	LCSPC-70	LCSPC-95	LCSPC-120	LCSPC-150	LCSPC-170	LCSPC-210
Ambient 24°C Water 26°C in, 28 °C out	capacity (KW)	4.15	5.58	7.11	9.72	12.11	15.18	17.21	21.27
	power input(KW)	0.67	0.93	1.18	1.60	1.85	2.40	2.80	3.53
	COP	6.18	6.01	6.05	6.07	6.53	6.33	6.15	6.02
Ambient 15°C Water 13°C in, 15 °C out	capacity (KW)	3.47	4.49	5.60	7.81	10.10	11.84	14.13	17.14
	power input(KW)	0.56	0.73	0.90	1.24	1.51	1.83	2.24	2.78
	COP	6.25	6.17	6.19	6.31	6.68	6.47	6.32	6.16
Ambient 15°C Water 26°C in, 28 °C out	capacity (KW)	3.13	4.08	5.11	7.14	9.17	11.06	13.07	16.12
	power input(KW)	0.61	0.80	1.01	1.41	1.77	2.16	2.58	3.22
	COP	5.11	5.08	5.07	5.06	5.18	5.11	5.06	5.01
Ambient 20°C Water 24°C in, 26 °C out	capacity (KW)	3.58	4.60	5.79	8.15	10.42	12.41	14.57	17.68
	power input(KW)	0.62	0.81	1.02	1.42	1.75	2.10	2.51	3.10
	COP	5.82	5.71	5.69	5.74	5.94	5.91	5.81	5.70
Ambient 35°C Water 29°C in, 27 °C out	capacity (KW)	2.74	3.32	4.22	6.94	8.07	9.53	11.05	13.07
	power input(KW)	0.84	1.04	1.35	1.97	2.18	2.79	3.37	4.18
	EER	3.28	3.19	3.12	3.53	3.70	3.42	3.28	3.13
power supply		220-240V / 50Hz							
max power input	KW	1.05	1.36	1.84	2.33	2.71	3.56	3.83	5.94
max current	A	4.77	6.18	8.36	10.59	12.32	16.18	17.41	27.00
water flow	m³/h	1.78	2.39	3.05	4.16	5.19	6.5	7.37	9.11
Refrigerant		R410A							
Min pressure/max pressure		1.5/4.15Mpa							
package dimensions(mm)		850*390*688	850*390*688	850*390*688	960*408*793	960*408*793	960*408*793	1150*480*843	1150*480*843
Carton box sizes(mm)		850*390*572	850*390*572	850*390*572	960*408*670	960*408*670	960*408*670	1150*480*725	1150*480*725
unit net dimensions(mm)		826*379*552	826*379*552	826*379*552	933*401*657	933*401*657	933*401*657	1125*470*707	1125*470*707
net weight kg		37 kg	39 kg	44 kg	50kg	59 kg	62 kg	71 kg	96 kg
gross weight kg		50	52	57	68	75	79	92	118
noise		26dB(A)	27dB(A)	28dB(A)	28dB(A)	29dB(A)	29dB(A)	30dB(A)	30dB(A)
noise at 1 m		<44	<45	<46	<46	<47	<47	<48	<48
noise at 4 m		<34	<35	<36	<36	<37	<37	<38	<38
noise at 10m		<25	<26	<28	<28	<29	<29	<30	<30
compressor brand		Toshiba	DAIKIN						
compressor type		Rotary	Scroll						
water proof level		IPX4							

