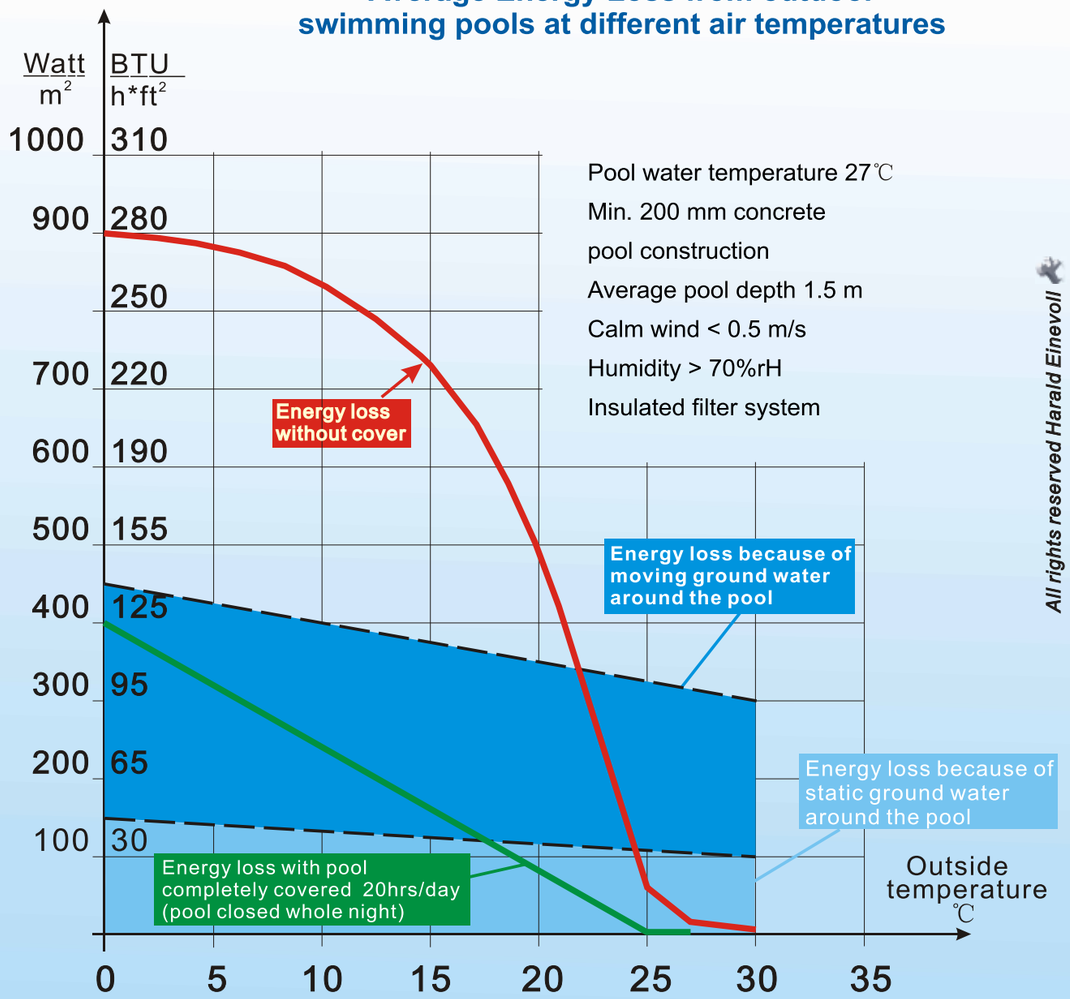
ASTRALPOOL INTERNATIONAL

Average Energy Loss from outdoor swimming pools at different air temperatures



Pool water temperature 27℃
Min. 200 mm concrete pool construction
Average pool depth 1.5 m
Calm wind < 0.5 m/s
Humidity > 70%rH
Insulated filter system

www.tuv.com ID:0000023764 TÜV Rheinland
- EMCcertified
- Production accredited

ISO9001 CB CE ETL ANSI-RAB
No . 120322-02

ASTRALPOOL INTERNATIONAL

2014

Astral
Air Source Heat Pumps for Swimming Pools

WHY CHOOSE AN ASTRAL HEAT PUMP?

1. Astral heat pumps are specifically designed for the climate in which they will be used, ensuring maximum energy gain at low air temperatures (higher COP at lower air temperatures, when maximum energy is needed)

2. Higher COP - Higher energy gain - Less energy costs.
   Astral Heat Pumps have oversized Evaporators, Double Titanium A1 Coil Heat Exchangers, Pre- charged Defrosting System;

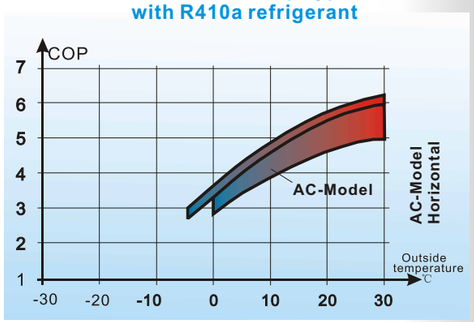
3. Practical functions.
   Bottom-pan heating to prevent ice-formation around base of unit, waterproof display and control panel

4. Value: best prices on the market for the performance and quality you get:
   We have many years of experience in efficient production, long-lasting relationships with suppliers of quality components and low-cost distribution system.

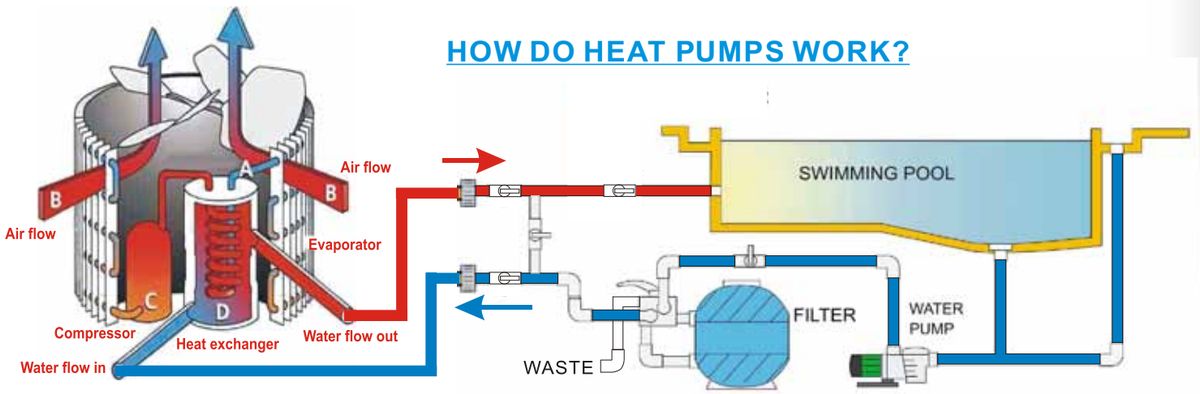
Output (kW) at different Air Temp. (Water Temp. 26℃)

	Output	Input	COP	Air temperature			COP
				15℃	10℃	5℃	5℃
	kW	kW	kW/kW	kW	kW	kW	kW/kW
AC-Model EU							
AC6	**5.4**	**1.0**	**5.4**	3.8	**3.5**	3.0	**3.0**
AC8	**6.8**	**1.2**	**5.6**	4.5	**4.1**	3.7	**3.1**
AC10	**9.5**	**1.7**	**5.6**	6.4	**5.8**	5.1	**3.0**
AC13	**11.5**	**2.1**	**5.5**	7.9	**7.2**	6.7	**3.2**
AC15	**15.0**	**2.7**	**5.6**	9.8	**8.9**	8.4	**3.1**
AC17	**16.8**	**3.1**	**5.4**	11.4	**10.3**	9.9	**3.2**
AC20	**20.5**	**3.8**	**5.4**	14.8	**13.5**	11.7	**3.1**
AC25	**25.5**	**4.8**	**5.3**	18.5	**16.8**	15.8	**3.3**
AC30	**30.0**	**5.4**	**5.5**	22.1	**20.0**	18.3	**3.4**

Astral Heat Pummp Type AC
with R410a refrigerant



HOW DO HEAT PUMPS WORK?




Enthalpy-difference Lab.


5S Manufacturing


Testing


Display Controller


Evaporator


Heat exchanger

Features:

1. Oversized coated energy collector (air coils) - higher COP
2. Titanium class A1 double-coil heat exchanger
3. Active auto-charged defrosting system - higher COP
4. Digital display
5. Waterproof display and control panel
6. Strong ABS casing - no corrosion
7. Bottom heater to prevent ice formation
8. Galvanized bottom plate for horizontal type
9. Horizontal air flow
10. Easy connection to water system
11. Rotary/Scroll compressor
12. Flow switch protection
13. High / low-pressure switch protection


DOUBLE COIL EXCHANGER

Code			AC6-EU	AC8-EU	AC10-EU	AC13-EU	AC15-EU	AC17-EU	AC20-EU	AC25-EU	AC30-EU
Capacity	Heating Capacity	KW	5.4	6.8	9.5	11.5	15.0	16.8	20.5	25.5	30.0
	Input Power	KW	1.0	1.2	1.7	2.1	2.7	3.1	3.8	4.8	5.4
	Running Current	A	4.3	5.2	7.4	9.1	11.7	13.5	16.5	8.5	9.6
	COP	KW/KW	5.4	5.6	5.6	5.5	5.6	5.4	5.4	5.3	5.5
Measuring conditions A15℃ W26℃	Heating Capacity	KW	3.8	4.5	6.4	7.9	9.8	11.4	14.8	18.5	22.1
	Input Power	KW	0.9	1.1	1.5	1.9	2.4	2.8	3.6	4.6	5.3
	Running Current	A	3.9	4.7	6.5	8.2	10.4	12.1	15.6	8.1	9.3
	COP	KW/KW	4.2	4.1	4.3	4.2	4.0	4.1	4.1	4.2	4.2
Power Supply		V/PH/HZ	220-240V/1P H/50HZ							380-400V/3P H/50HZ	
Controller			LED/LCD								
Heat exchanger			Titanium Coil								
Number of Compressors			1	1	1	1	1	1	1	1	1
Compressor			Rotary							Scroll	
Number of Fans			1	1	1	1	1	1	1	1	2
Input Power of Fan		W	60	60	80	100	100	110	110	220	440
Fan Speed		RPM	910	910	890	890	890	850	850	850	850
Noise (1 meter)		dB(A)	50	50	53	54	54	56	56	56	57
Water Connection		inch	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2
Water Flow Rate (min-med-max)		m3/h	2.5	3.2	4.0	5.0	6.5	7.5	9.0	11.0	13.5
Water Pressure Drop		kpa	10	10	10	12	12	14	14	16	16
Net Dimension	L	mm	778	778	938	1015	1015	1080	1080	1078	1078
	W	mm	293	293	360	370	370	416	416	416	416
	H	mm	511	511	581	621	621	708	708	958	1258
Packing Dimension	L	mm	875	875	1060	1140	1140	1150	1150	1150	1150
	W	mm	328	328	380	400	400	450	450	475	475
	H	mm	545	545	630	676	676	838	838	1088	1388
Weight	Net Weight	kg	41	42	53	60	64	75	85	105	140
	Gross Weight	kg	46	47	59	67	71	83	93	118	152

NOTE: The refrigerant R410a are not filled from factory, it has to be filled to the unit at the installation. See installation manual section 8 for filling refrigerant R410a at site.