



OUTDOOR INSTALLATION

Air Source Heat Pumps

HEAT PUMPS

THERE'S SOMETHING IN THE AIR

Energy Without Limits

alpha immoTec

Outdoor installation up to 60 °C flow temperature



LW 121A/SX



Heating



Domestic hot water



LW 81A/SX



Air source heat pump, outdoor installation 15 kW

In terms of up-front capital required air source systems are the most cost-effective heat pump solution. As a source of energy, air is free and effectively inexhaustible. We can make use of this energy supply without the need to dig trenches or boreholes, lowering the installation cost. Modern air source systems achieve efficiency levels that are not far behind their ground source counterparts.

Our air-to-water heat pumps are available to suit a wide range of applications from a single dwelling to a block of flats. A range of outputs between 7 kW and 31 kW means that some serious heat can be pumped!

Space-Saving

Our outdoor heat pump systems are ideally suited for properties with limited space available or to free-up space inside that would otherwise be needed for the heating system. The outdoor unit can be installed near the property or situated discreetly at the end of the garden for example.

Retrofitting

A flow temperature of up to 60°C is possible with these systems making them also suitable for retrofitting to older properties that don't have under floor heating.

The Heat Pump

The standard series of outdoor units offers a choice of 11 performance levels with outputs up to 31 kW. An HCFC-free refrigeration circuit and a scroll compressor guarantee high performance. The heat pumps will operate at outside temperatures down to -20 °C and achieve domestic hot water temperatures of up to 60 °C. An integrated immersion heater is fitted as standard to all the systems (except LW310A) to provide additional heating on very cold days.

Operating Principles

In many cases air source heat pumps are designed to work in parallel with a supplementary heating system to deal with the coldest days. This can be the integrated immersion heater or the system could run in parallel with an existing oil or gas boiler in so-called bi-valent mode. Your installer can advise on the best option for your project.

Braving the weather with ease

The casing of our outdoor air source units is made from high-grade extruded aluminium, protecting the units against the effects of weather and corrosion. An additional anti-corrosion coating for the condenser can be ordered as an option if the installation is to be located near the sea. Weight is a further advantage. Aluminium weighs approximately half as much as steel. This saves energy during transport and makes for easier handling on site.

A great deal of effort has gone into producing a unit that is not only functional but also visually appealing. The silver body and black air vents combine to produce a striking, sculptural element in the domestic environment.

Overview:

- Heating and domestic hot water supply
- Outdoor installation
- Minimal installation effort
- Wide range of outputs
- Suitable for retrofitting
- Monovalent or bivalent operation
- Internet connection possible

A young child with light brown hair, wearing a blue and white striped long-sleeved shirt and pink shorts, is swinging happily on a swing set. The child is smiling broadly, showing their teeth. The background is a blurred green park with trees and a bright sky. A large red graphic element is overlaid on the right side of the image, containing text.

MODERNISATION

Don't save on the
heating save with it.

Overview:

- For heating and domestic hot water preparation
- 64 °C flow temperature
- High performance compressors
- Outdoor installation
- Minimal installation effort
- Wide range of outputs
- Specifically developed for heating system modernisation
- Monovalent or bivalent operation
- Internet connection possible

Outdoor installation up to 64°C flow temperature



The powerhouse for high flow temperatures

Heat pumps are known to be most effective in combination with low-temperature heating systems like under floor heating, as these operate well with heating water temperatures of around 35°C.

Not a problem in newly built houses. But in an older property? In this case it may be desirable to retain the existing radiator system.

The solution? The H series of air source heat pumps from Alpha-InnoTec.

With the H series we have developed a range of particularly high-performance air source heat pumps specifically suited for retrofitting. These units are fitted with special, high performance compressors that continue to operate well, even at very low outside temperatures, precisely when the high flow temperature of 64°C is needed. In most cases this allows the existing radiators to be kept, meaning that the installation is both cheaper and easier to carry out.

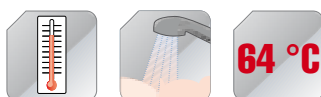
As the units are installed outdoors no additional space for plant needs to be found in the house, again ideal for retrofitting.

The Heat Pumps

The H series share the same attractive housing as the other outdoor air source systems from Alpha-InnoTec. Depending on the size of the building, you can choose between the LW 100 H-A, LW 100 H-A/SX, or LW 180 H-A.

Operating principle

In many cases air source heat pumps are designed to work in parallel with a supplementary heating system to deal with the coldest days. This can be the integrated immersion heater or the system could run in parallel with an existing oil or gas boiler in so-called bi-valent mode. Your installer can advise on the best option for your project.



Heating

Domestic Hot Water

up to 64 °C flow temperature



LW 180H-A



OPTIMALLY MATCHED

Full Power with the Hydraulic Tower

**AlphaWeb
compatible**
control your heat pump
over the Internet!



The perfect companion to your Alpha Innotec Air Source Heat Pump

Integration Par-excellence

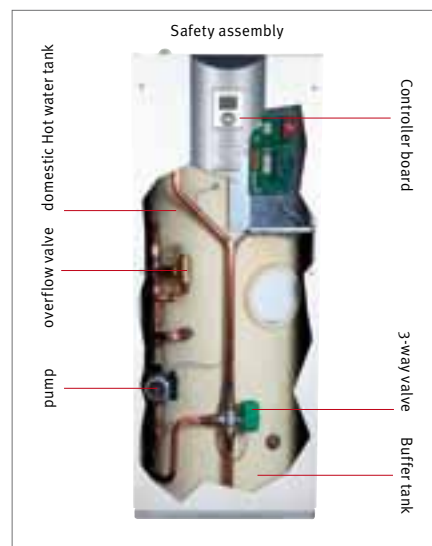
Alpha-InnoTec is setting new benchmarks with the Hydraulic Tower HT1 (up to 8 kW) and HT2 (up to 19 kW). The Hydraulic Towers have been carefully thought out to offer the best in heating system comfort and simplicity. They are designed to perfectly match our range of outdoor air source heat pumps (up to 19kW output).

It Could Hardly Be Simpler

Everything you need is integrated in a single unit: Luxtronik 2.0 heat pump controller, hot water cylinder, buffer tank, and optimized pump components. The components have been selected to provide the best possible long term reliability for the heating system. Planning and installing a system using the Hydraulic Tower could hardly be easier. The attractive unit takes up as little space as possible in the home making this ideal for retrofit as well as new-build projects.

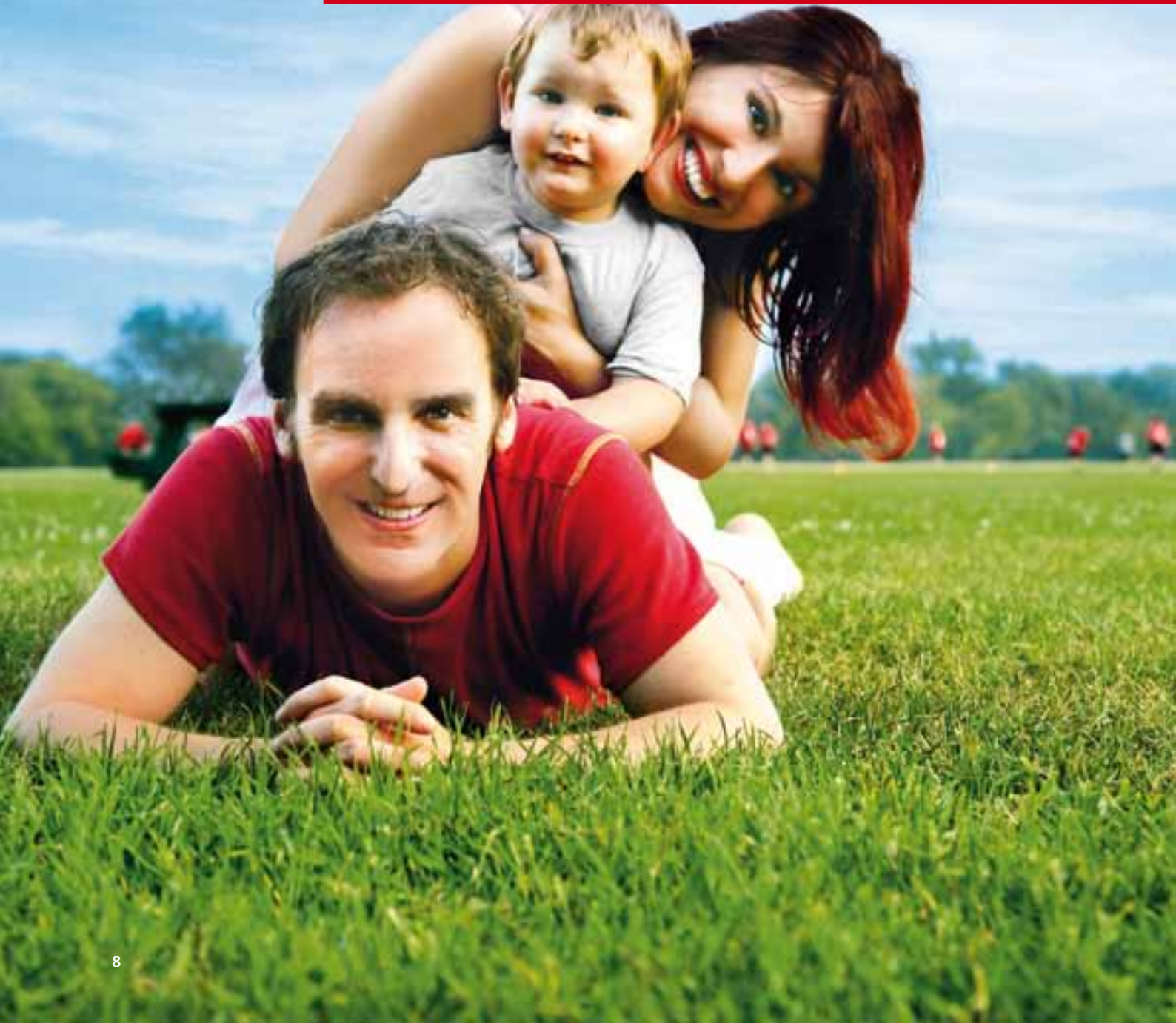


Hydraulic Tower	Unit	
HT 1 for heat pumps up to	kW	8
HT 2 for heat pumps up to	kW	19
HT 1		
Nominal domestic hot water tank capacity	l	295
Buffer tank	l	98
Width x depth x height (without connections)	mm	720 x 800 x 1820 (approx. 1940 with safety assembly)
External compression at 1000 l/h	bar	0.44
HT 2		
Nominal domestic hot water tank capacity	l	285
Buffer tank	l	98
Width x depth x height (without connections)	mm	720 x 800 x 1820 (approx. 1940 with safety assembly)
External compression at 2000 l/h	bar	0.5



WHAT NO OTHER HEATING SYSTEM CAN DO:

**Warm and cosy in winter,
nice and cool in summer!**



Super Climate Control!



Heating



Cooling



Hot Water

The LW 90 A/RX and LW 140 A/RX reversible air source heat pumps ensure a pleasant indoor climate all year round, since they can provide heating and cooling, as required. On hot days the underfloor heating or fan convectors become a cooling system by absorbing the heat inside the building and transferring it to the heat pump, which then gives off the excess heat into outside air. With under floor heating the cooling is 'quiet'; with fan convectors it is 'dynamic'. Both options can be equally effective.

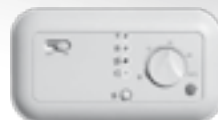


Overview:

- Just one unit for heating and cooling
- Efficient use of energy
- Low-noise fan convectors
- Low operating costs
- Optimum comfort all year round
- Low investment cost



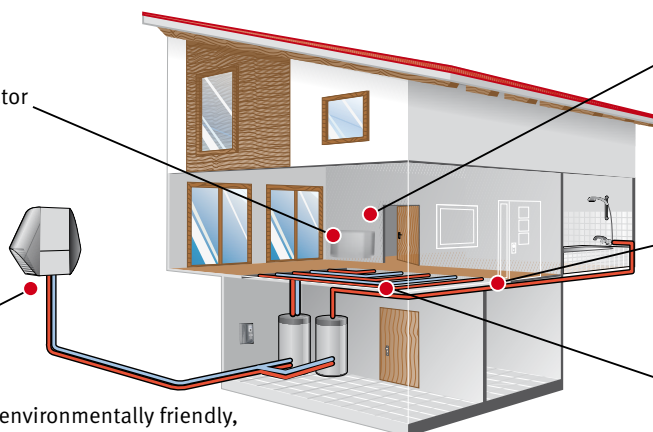
Fan convectors



Control

For rooms with a high heating load or work places:
Dynamic cooling via fan convector with condensate drain.

The LW 90A/RX or LW 140 A/RX reversible heat pump provides environmentally friendly, cost-effective heating and cooling for a wide range of properties.



The room thermostat switches from heating to cooling in response to an external signal from the cooling control.

If a risk of condensation arises, dew point monitors automatically interrupt the cooling mode operation.

Quiet cooling: the underfloor heating distributes cosy warmth in winter and welcome cooling in summer.

Super Controller!

Your Alpha-InnoTec heat pump knows exactly when it has to deliver heat. An outdoor temperature sensor sees to that. If it is too cold outside, the heat pump switches on. You can adjust the temperature to your own personal comfort setting using the menu-driven Luxtronik 2.0 heat pump controller. The “jog-dial” switch, very like those found on satellite navigation systems in cars, makes operation of the heat pump child’s play.

Feel-good comfort at the touch of a button – it couldn’t be easier!



Overview:

- Intuitive operation via jog dial
- Full graphic display with self-explanatory menu functions
- USB connection (for reading out data or for software updates)
- Operation in various languages
- Automatic Summer / Winter switching

Super Convenient!

Together with the Luxtronik 2.0 controller AlphaWeb provides the potential for remote control with no additional hardware or software. Simply connect the heat pump controller to your home broadband network to enable this powerful capability.

Then sign up to the AlphaWeb service to allow access to the heat pump, worldwide, via the Internet. The owner of the heat pump and the installer can then control and monitor the heating system remotely from anywhere using the Internet, even from a smart-phone.

The Heat pump meets the Internet!



Overview:

- Facility for remote trouble-shooting
- Fault messaging by text message, E-mail or fax
- Adjustment of the heat pump settings possible on-line

Technical data

Outdoor installation	Performane data at A2 / W 35 according to EN 14511				Performane data at A7 / W 35 according to EN 14511				Operating limits		Device		
	Heating performance [kW]		COP		Heating performance [kW]		COP		Flow temperature operating limits [°C]	Air temperature operating limits [°C]	Dimensions [mm] W x D x H	Weight [kg]	Electrical connection [V]
	1 compressor	2 compressors	1 compressor	2 compressors	1 compressor	2 compressors	1 compressor	2 compressors					
LW 100H-A	10.0	-	3.4	-	10.4	-	3.7	-	20 to 64	-20 to 35	1774 x 848 x 1353	270	400
LW 100H-A/SX	9.5	-	3.1	-	10.1	-	3.4	-	25 to 64	-20 to 35	1774 x 848 x 1353	274	230
LW 180H-A	9.0	17.5	3.4	3.3	10.9	19.3	3.8	3.7	25 to 64	-20 to 35	1731 x 1050 x 1780	420	400
LW 71A	7.2	-	3.5	-	8.1	-	3.9	-	25 to 60	-20 to 35	650 x 650 x 1270	145	400
LW 81A	8.4	-	3.5	-	9.4	-	3.9	-	25 to 60	-20 to 35	650 x 650 x 1270	145	400
LW 81A/X	8.0	-	3.3	-	9.7	-	3.9	-	25 to 60	-20 to 35	650 x 650 x 1270	145	400
LW 81A/SX	8.0	-	3.1	-	9.8	-	3.8	-	25 to 60	-20 to 35	650 x 650 x 1270	145	230
LW 101A	9.5	-	3.7	-	10.3	-	4.2	-	20 to 60	-20 to 35	1774 x 848 x 1353	260	400
LW 121A	11.8	-	3.7	-	12.8	-	4.2	-	20 to 60	-20 to 35	1943 x 746 x 1523	280	400
LW 121A/SX	11.5	-	3.2	-	12.1	-	3.7	-	20 to 60	-20 to 35	1943 x 746 x 1523	265	230
LW 140A	13.8	-	3.7	-	14.4	-	4.3	-	20 to 60	-20 to 35	1931 x 1050 x 1780	370	400
LW 180A	9.5	17.2	3.8	3.6	10.1	19.6	4.2	3.9	20 to 60	-20 to 35	1931 x 1050 x 1780	420	400
LW 251A	13.2	24.0	3.8	3.6	14.1	27.3	4.2	3.9	25 to 60	-20 to 35	1779 x 1258 x 1817	540	400
LW 310A	16.8	31.0	3.6	3.5	19.1	35.0	4.2	4.0	20 to 60	-20 to 35	1799 x 1258 x 2127	573	400

Outdoor installation	Performane data at A7 / W35 at EN 14511				Performane data at A27 / W18 to EN 14511				Operating limits		Device		
	Heating performance [kW]		COP		Cooling performance [kW]		EER		Flow temperature operating limits [°C]	Air temperature operating limits [°C]	Dimensions [mm] W x D x H	Weight [kg]	Electrical connection [V]
	1 compressor	2 compressors	1 compressor	2 compressors	1 compressor	2 compressors	1 compressor	2 compressors					
LW 90A/RX	9.2	-	4.1	-	14.5	-	3.7	-	20 to 60	-20 to 40	1774 x 848 x 1353	260	400
LW 90A/RSX	9.1	-	4.0	-	14.3	-	3.6	-	20 to 60	-20 to 40	1774 x 848 x 1353	260	230
LW 140A/RX	15.8	-	4.0	-	20.3	-	3.8	-	20 to 60	-20 to 40	1931 x 1050 x 1780	280	400

Alpha-InnoTec Heat Pumps are the right choice!



Selected Alpha-InnoTec heat pumps have the European quality label.
For more information:
www.alpha-innotec.de/guetesiegel



Alpha-InnoTec is a member of:
The Federal Association of Heat Pumps (BWP) e.V.
European Heat Pump Association (EHPA)
FWS Swiss Association for promotion of Heat Pumps



Alpha-InnoTec product manufacturing is monitored by TÜV



Alpha-InnoTec products carry the CE-label



Alpha-InnoTec is certified according to ISO 9001 (quality) and ISO 14001 (environment)



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Subject to technical changes and amendments of device dimensions.



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