the better way to heat

alpha innotec

Professional heat pumps

The better solution to cover high outputs!

www.alpha-innotec.com

alpha innotec head office in Kasendorf, Germany

alpha innotec

Since 1998, alpha innotec has been developing, producing and selling market-oriented and user-friendly heat pumps in the Upper Franconian town of Kasendorf. The company's own Technology Center – the most comprehensive research and development center of its kind in Europe – is instrumental in producing heat pumps that are able to meet all market and customer requirements. In addition, the long-standing experience as a manufacturer of energy-efficient solutions gives you the assurance that you have made the right decision with a product from alpha innotec.

alpha innotec heat pumps stand for quality, innovation, easy installation and use and reliable operation. With a wide range of products for every application, every property size and every requirement, you opt for a quality product which fulfils your precise needs.

With alpha innotec, you decide for a brand that places great emphasis on ecological and economic sustainability: Heat pumps that meet the highest standards of energy efficiency and make you independent from fossil and other finite energy sources.

Product overview.

alira pro professional air/water heat pumps

LWP, Outdoor

Heating capacity/supply voltage:
45 kW, 3 ~ 400 V

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LWA, Outdoor

Heating capacity/supply voltage:
24 – 31 kW, 3 ~ 400 V

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LW, Indoor

Heating capacity/supply voltage:
24 – 31 kW, 3 ~ 400 V

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alterra pro professional ground source heat pumps

SWP, Indoor

Heating capacity/supply voltage:
Size 1 up to 69 kW, 3 ~ 400 V
Size 2 up to 162 kW, 3 ~ 400 V

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SW, Indoor

Heating capacity/supply voltage:
22 – 30 kW, 3 ~ 400 V

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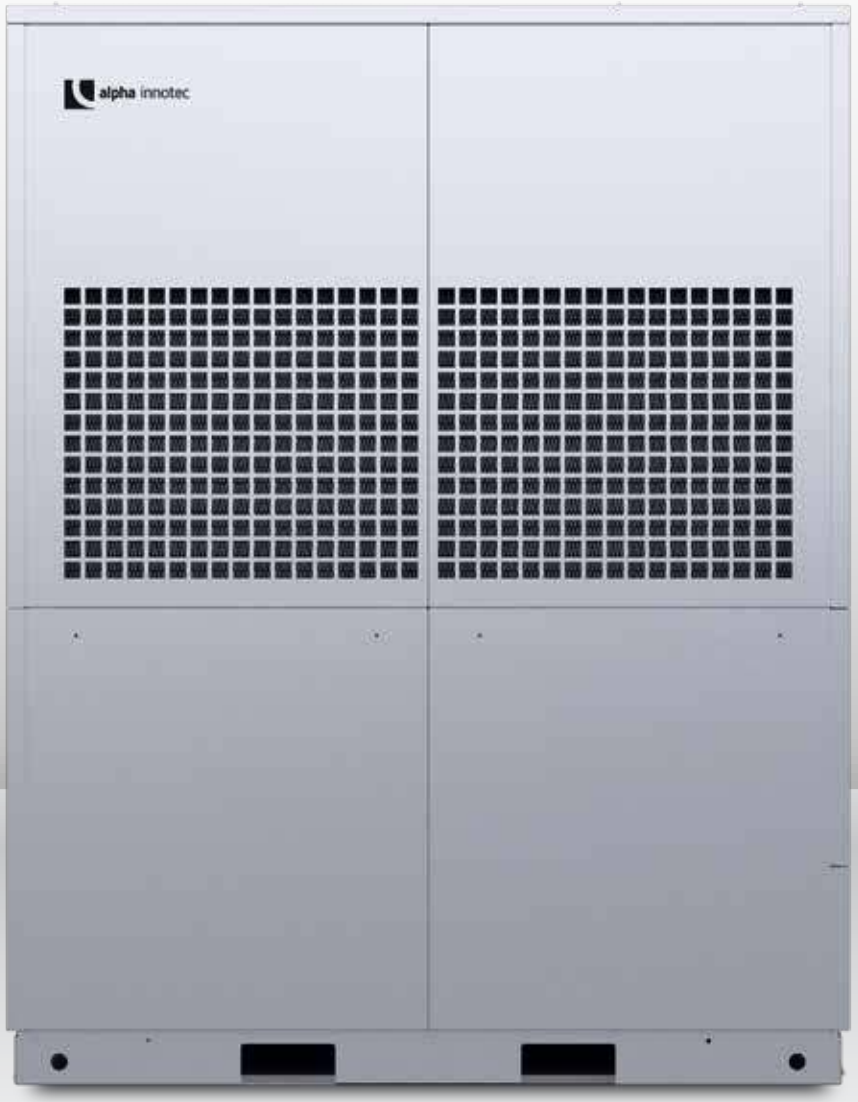
alira pro series



The dynamic

Professional air/water heat pumps
LWP

There’s no more powerful way to heat.

The elegant

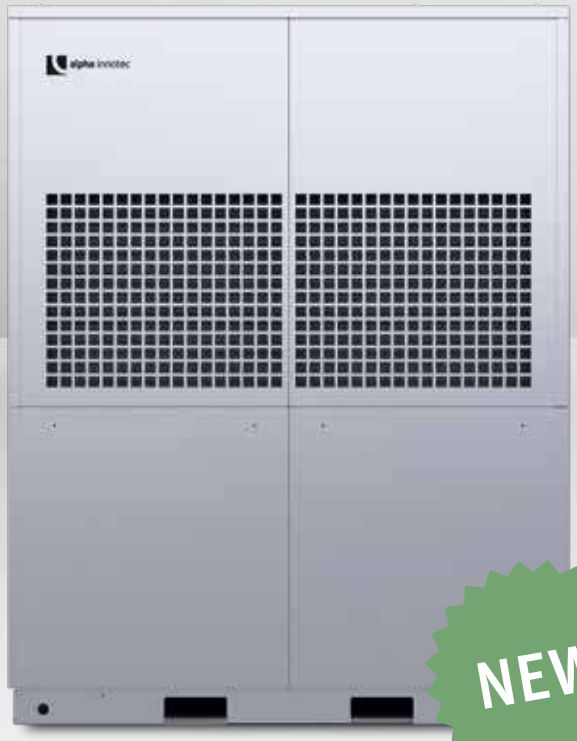
Air/water heat pumps
LWA

The powerful

Air/water heat pumps
LW

The dynamic

alira pro LWP



High output, flexible installation.

LWP – Professional air/water heat pumps for outdoor installation

High performance – easy installation

Whether newly built or renovated, the alira pro LWP with an output of 45 kW is an all-rounder that offers both the user and the installer a variety of plus points. Perfect for large outputs, up to four units can be connected in parallel, ensuring the optimal climate for every need. Installers are particularly pleased with the straightforward installation: The alira pro LWP for outdoor installation offers a convenient solution and hardly differs in planning and design from a heat pump in the lower output range. It can even be installed on rooftops. The alira pro LWP thus scores points not only with high flow temperatures of up to +65 °C and its modern industrial design but also with its compact installation. Equipped with a dual compressor solution, the heat pump impresses with integrated hot gas usage for heat supply during cooling.

Benefits to users

- Suitable for new builds and renovations
- High supply temperatures up to + 65 °C
- Integrated active cooling
- Simultaneous cooling and hot water preparation or heating with hot gas
- High energy efficiency thanks to high annual working time: low operating costs
- Particularly quiet operation thanks to specially shaped fan blades and soundproofed compressor chamber
- Flexible outdoor installation: Can be installed on rooftops
- Modern design

Benefits to installers

- Covers high output: parallel connection of up to four units
- Two compressors for output control in partial-load operation or water heating
- Ingenious transport concept, thanks to sufficient access clearance
- Crane transport possible
- Turnkey connection for inherently safe primary and secondary pumps
- Electronic soft starter for reduced starting current and a low network load
- Simple planning
- BACnet and Modbus capable

The elegant

alira LWA

Economical and powerful heating.

LWA – Air/water heat pumps for outdoor installation

With the alira LWA range, you can not only heat your premises and ensure a supply of domestic hot water in a way that is easy on the environment, but also save valuable space inside your building – thanks to the outdoor installation and compact accessories. The LW 251A and LW 310A air/water heat pumps offer the best solution wherever high levels of output are required, whether you're in a new or a renovated building. They are also ideally suited for both commercial and industrial applications. There's yet another advantage: the possible parallel connection of up to four units gives flexibility in use and also guarantees planning reliability for the installer. In this way you can achieve particularly high output levels and a finely tuned output gradation – ideal for changing requirements.

Information on essential LWA accessories can be found in alpha innotec's current price list.

Benefits to users

- Very quiet in operation
- Small space requirement
- Attractive design
- Heating and domestic hot water preparation with one unit
- Durable and weather-resistant aluminium housing
- Perfect for new building and refurbishing

Benefits to installers

- Short installation time and effort
- Installation without refrigeration accreditation
- Many combinations with components from the buffer tank and accessories product range
- Integrated heat metering and energy efficient pump available
- Parallel connection for high levels of output
- Indoor units available with built-in tanks, hydraulics and controllers

Three-star Hotel Grand Spa, Lithuania

The powerful

alira LW

Powerful and flexible installation.

LW – Air/water heat pumps for indoor installation

Maximum efficiency with compact installation: the LW 251 and LW 310 air/water heat pumps from the alira LW series are efficient and powerful and offer the additional benefit of compact construction. Especially in small properties, the heat pumps for indoor installation offer the ideal solution and provide high levels of output without taking up much space. Courtesy of their perfectly coordinated accessories, the pumps can heat your premises and provide domestic hot water with modest energy use and are at the same time easy to install. Not only that, but also an air channel system perfectly matched with the heat pump offers low noise levels: all this explains why homeowners and installers alike appreciate quiet operation and a high degree of installation flexibility.

The associated air channel system can be found as an accessory in alpha innotec's current price list.

Benefits to users

- Extremely quiet in operation
- Visually attractive and sound-absorbing air duct system for indoor installation
- Heating and hot water preparation in one system
- High flow temperature of up to +60 °C
- Suitable for new build and refurbishments
- Compact design: low space requirement

Benefits to installers

- Lower installation time and effort
- Many combination and installation options, e. g. with ventilation
- Parallel connection for high levels of output
- Perfect for new building and refurbishing
- Complete and innovative air duct system including wall duct
- Installation without refrigeration accreditation

Take full advantage of alira pro series key features.

Maximum efficiency.

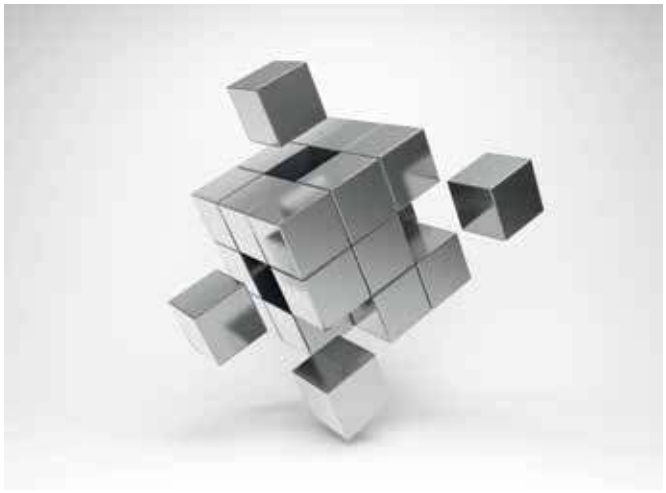
Heat pumps from the alira pro series heat and cool with maximum efficiency achieving COPs of up to 3.8. Moreover, the combination of up to four units allows precise output gradation. Depending on the load, one or more heat pumps can be switched off to ensure appropriate performance.

Extremely high performance.

With the alira pro series you can also easily cover high outputs. These heat pumps were specifically designed for use in large buildings for reliable and environmentally-friendly heating, cooling and domestic hot water preperation. Thanks to the parallel connection of up to four units, high output of up to 180 kW can be easily achieved.

Easy connection to the heat source.

Air is available everywhere as a heat source, and no authorisation is required for its use. The heat pumps from the alira pro series use this easy-to-tap and environmentally-friendly heat source, eliminating high connection costs.



Modern design.

One of the most persuasive benefits of the units from the alira pro series is the unparalleled flexibility they offer! Adapted to a wide range of requirements, the air/water heat pump from the alira pro LWP series is equipped with two compressors. The integrated use of hot gas for heat supply during cooling makes the heat pump a versatile solution for any building. The twin-compressor solution also prevents the production of excess energy, which means additional efficiency with low operating costs.

alterra pro series

The powerful

Professional ground source heat pumps
SWP

There’s no more powerful way to heat.

The classic

Ground source heat pumps
SWC

The powerful

alterra pro SWP/SWP-H Size 1
SWP/SWP-H Size 2

Size 2

Size 1

The ground source heat pumps for high heat capacity.

SWP – Professional ground source heat pumps for indoor installation

The professionals for heating and cooling, for architects and investors who care about environment

alpha innotec's alterra pro series heat pumps have been especially developed for use in large buildings. This series' range of use includes office and administration buildings, industrial applications, hotels and many other types of properties. The alterra pro heat pumps provide all necessary heating capacities and are perfectly suitable for heating, cooling and heat recovery (e. g. of production machines). For example, a large heat pump derives 80 % of its heating energy from solar heat stored in the ground an 20 % from electricity. The advantage: This allows relatively stable price calculations.

In large buildings there is often a wide difference between the existing heating system and the heat and cooling requirements. The need to heat and cool at the same time also makes the alterra pro heat pump the ideal unit for large properties.

You have the choice

The alterra pro series is available in two sizes: Size 1 up to 69 kW and size 2 up to 162 kW capacity. Size 1 excels due to its modern design and its dimensions allow it to be integrated easily into existing buildings. Size 2 offers extensive additional usage options through individual hydraulic solutions (heating, cooling, waste heat use). Both units can be integrated into existing building services management systems without any great effort.

Benefits to users

- Space-saving due to small installation area and practical rack system (BG1)
- Flow temperatures up to + 70 °C
- Ideal for multiple dwelling buildings and industrial applications
- Super silent, hardly audible in operation
- Unique controller concept
- Suitable for heating, cooling and waste heat utilisation

Benefits to installers

- Easy increase in heating and cooling capacity through parallel connection
- Special hydraulics for active and passive cooling
- Complete service access from the front
- Design support from the factory
- Easy transport
- BAC-net and Modbus capable

Oranje Nassau III coal mine in the Netherlands with the illustration of an open heat pump (top left)

The classic

alterra SW

Powerful entry into eco-friendly heating technology.

SW – Ground source heat pumps for indoor installation

The introduction of a second size in the alterra SW series makes no compromises in terms of performance and technology. With its compact dimensions and outputs of 22 to 30 kW, this heat pump is the perfect fit wherever high output levels are needed in a restricted space. Ideal for the parallel connection of up to four units, the output of the devices can be freely combined in order to achieve up to 120 kW. This results in planning reliability and allows precise output gradation.

The SW series from the alterra range was specifically designed by alpha innotec for installers who want as much freedom as possible in their installation work. Decisions on where and how to buy and combine accessories are thus left to the specialist. In addition to everything that already rounds the heat pump installation process off to perfection there is also a special cooling package from alpha innotec, which offers a cooling option.

Benefits to users

- Energy efficient – low operating costs
- Extremely quiet, hardly audible in operation
- Cost-effective heating system which is open to all needs
- Can be combined with solar thermal system or photovoltaic systems
- For heating and domestic hot water preparation, optional cooling package
- Modern design

Benefits to installers

- Free installation and combination options, e.g. with ventilation, solar thermal energy or photovoltaics, optimal for bivalent systems
- Ideal for the parallel connection of up to four units
- Particularly compact design
- Suitable for new building, refurbishing and replacement
- Compact delivery, easy handling
- Tried-and-tested controller concept
- Suitable for tapping all types of heat sources

Take full advantage of alterra pro series key features.

Maximum efficiency.

With COPs up to 4.8, the alterra pro series also performs convincingly in terms of energy efficiency. alterra pro heat pumps provide perfect room climate 365 days a year – heating, cooling and domestic hot water heating couldn't be more energy efficient.

Super silent.

The alterra pro series heat pumps are ultra-silent! Thanks to particularly high-quality, sound-optimised design of the heat pumps and the double sound insulation, particularly low sound emission values are achieved. For the installer this is an uncomplicated solution, even where sound requirements are critical.

Flexible controller concept.

Versatile control options make the brine/water heat pump a user-friendly system, which can be conveniently controlled via smartphone app, PC or tablet. The alpha web control system in the alterra pro SWP/SWP-H size 1 and the alterra SW enable remote diagnostics and control. It can be integrated into the BACnet/IP, allowing data dialogue within the installation.

Even more powerful in a group.

Up to four units can be operated in parallel. A cooling capacity of up to 400 kW is possible due to special hydraulic solutions and additional components. With the parallel connection of several units in this range, you can achieve a heating output of up to 640 kW. Combining multiple devices makes it possible to deliver output as and when required, thereby generating high levels of performance with maximum efficiency.

Flexible transport, uncomplicated installation.

The alterra pro series heat pumps are easy to incorporate into existing buildings due to their small size. The ease with which both sizes can be lifted from beneath makes it easy to transport them to the desired installation site. Moreover the alterra pro series units can be placed directly next to each other; size 1 units from the SWP/SWP-H series can also be stacked on top of each other due to the practical shelf system.

Unique controller concept

The heat pump can be controlled using the Luxtronik controller directly on site or via an Internet connection.

User-friendly handling of the heat pump. Innovation and efficiency are standard features.

All products of the alterra pro series are supplied with the Luxtronik 2.0 controller. The Luxtronik 2.0 controller makes the heat pump the central heating engineering control unit in the building. The controller stands out from the rest above all due to its easy operation via Jog Dial and its modern design. Its self-explanatory, user-friendly menu navigation makes setting and adjusting the large heat pump to a child's play.

Web server connection.

Control your heat pump conveniently at home on your computer

By the use of the web server connection you are able to control all heat pump functions on your computer. Apart from a connection cable, no other hardware or software is required to use this special function. All Luxtronik 2.0 controllers made by alpha innotec are compatible with the free-of-charge web server connection – without any additional costs.

Perfect teamwork via BACnet/Modbus.

The BACnet virtual network makes it possible to integrate the alterra pro series and alira pro series heat pumps into an existing building management system.

This allows an open data dialogue between building automation and building control systems. In this way, the heat pump can be integrated into a building control system without additional hardware as well as communicate and work with the systems of other manufacturers. This secures your projects' future.

Worldwide access – convenient online control.

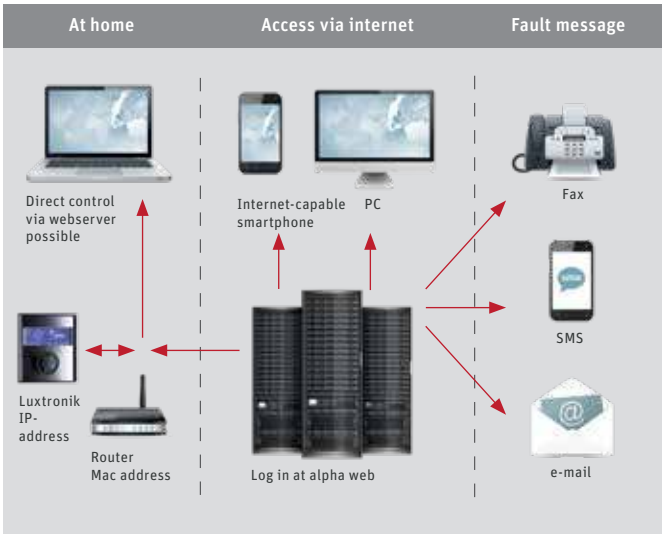
alpha web | alpha app

With alpha web and alpha app the heating system can be controlled from any location you want using a PC, smartphone or tablet. You can access the Luxtronik 2.0 controller of the heat pump not only via a home network but also via the internet.

alpha web
Worldwide alpha web access requires the heat pump to be set up on the alpha innotec server.
After the heat pump has been connected with the phone system (router), you can start.

Your advantages

- All heat pump settings can be adjusted online
- Monitoring and diagnosis possible from far away
- Apart from internet access, no other hardware or software is required

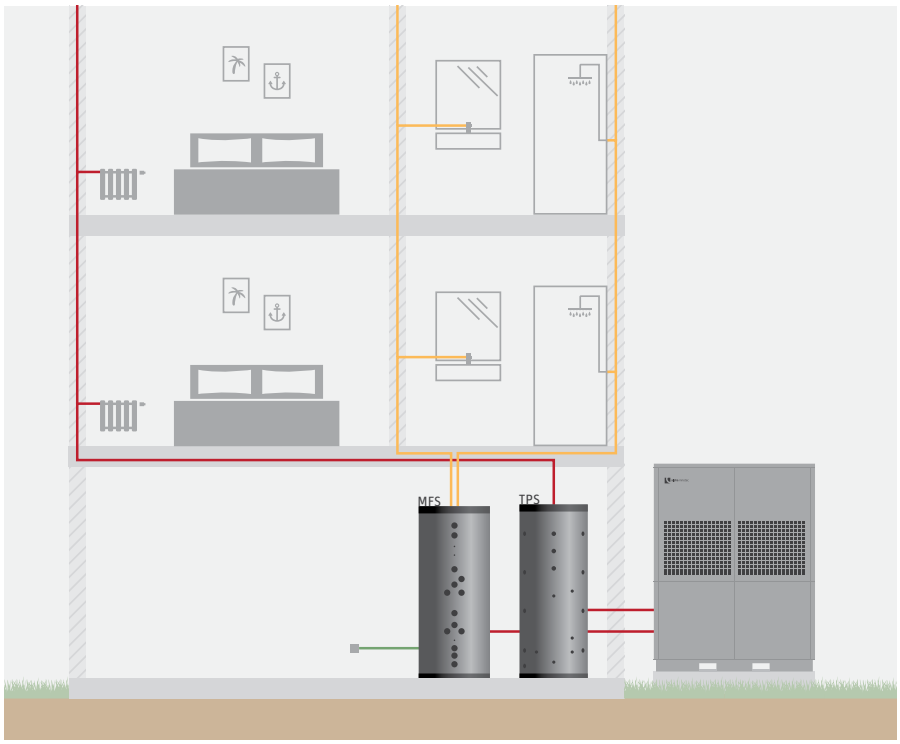


alpha app
Owners of a smartphone or tablet (iOS or Android) can look forward to controlling their heat pump via alpha app. The application is the ideal tool for setting or monitoring alpha innotec heat pumps, without having to be there in person. The app is available free-of-charge in the respective app stores.

Your advantages

- Convenient remote control
- Heat pump can be set and serviced directly via the smartphone
- Download online, free-of-charge and easily

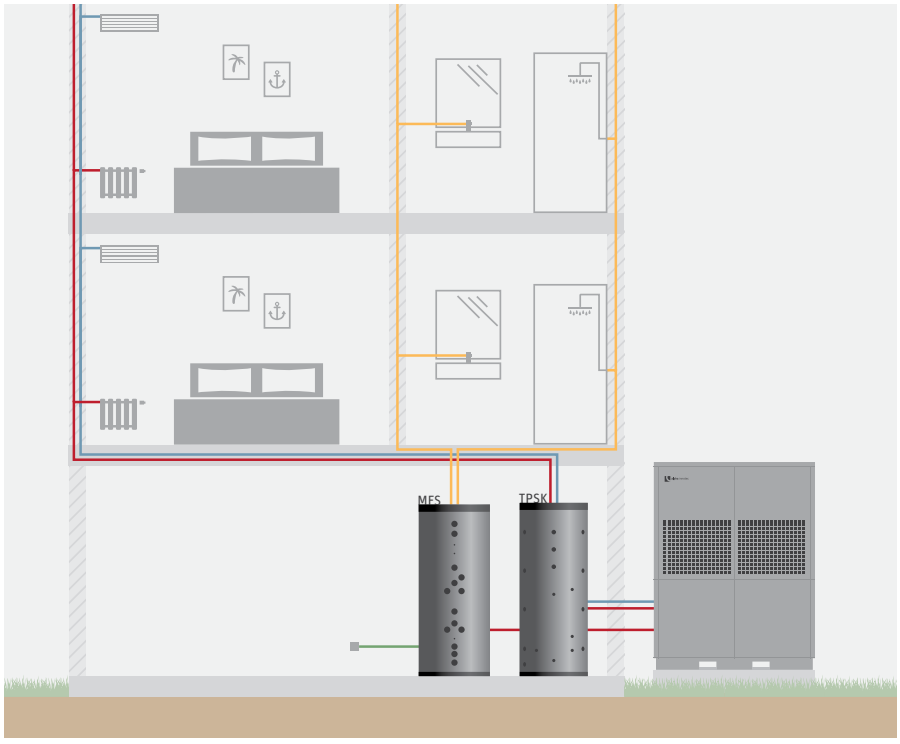
Easy planning even with high output levels.



Heating Domestic hot water Cold water

Heating and hot water preparation with the LWP

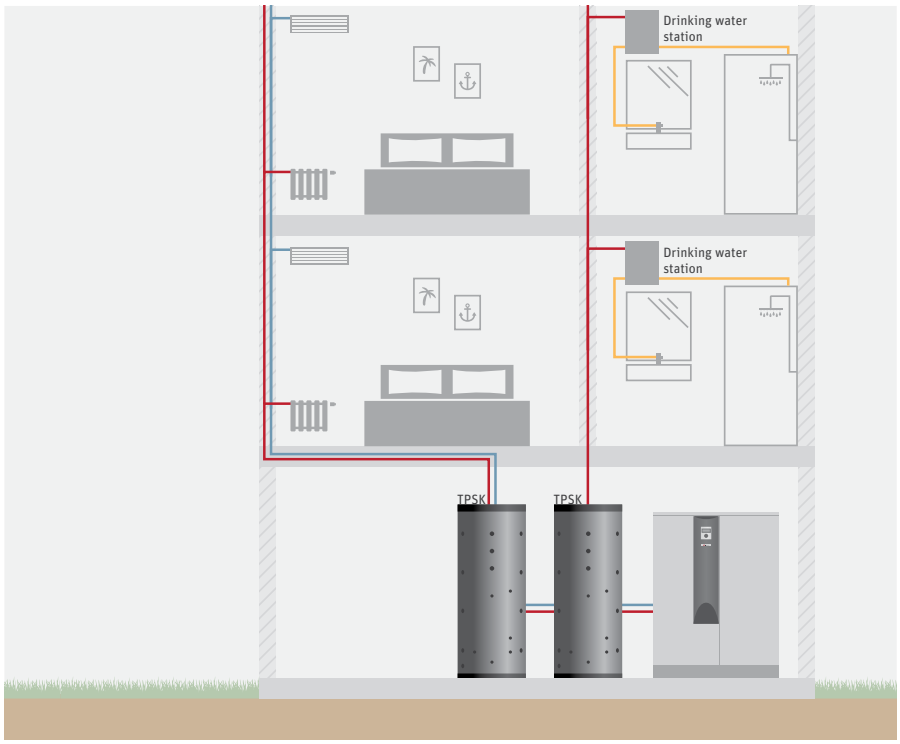
In combination with the TPS buffer storage tank and MFS multifunctional tank, the LWP doesn't only heat efficiently and reliably, but also provides sufficient amount of hot water.



Heating Domestic hot water Cold water Cooling

Heating, cooling and hot water preparation with the LWP

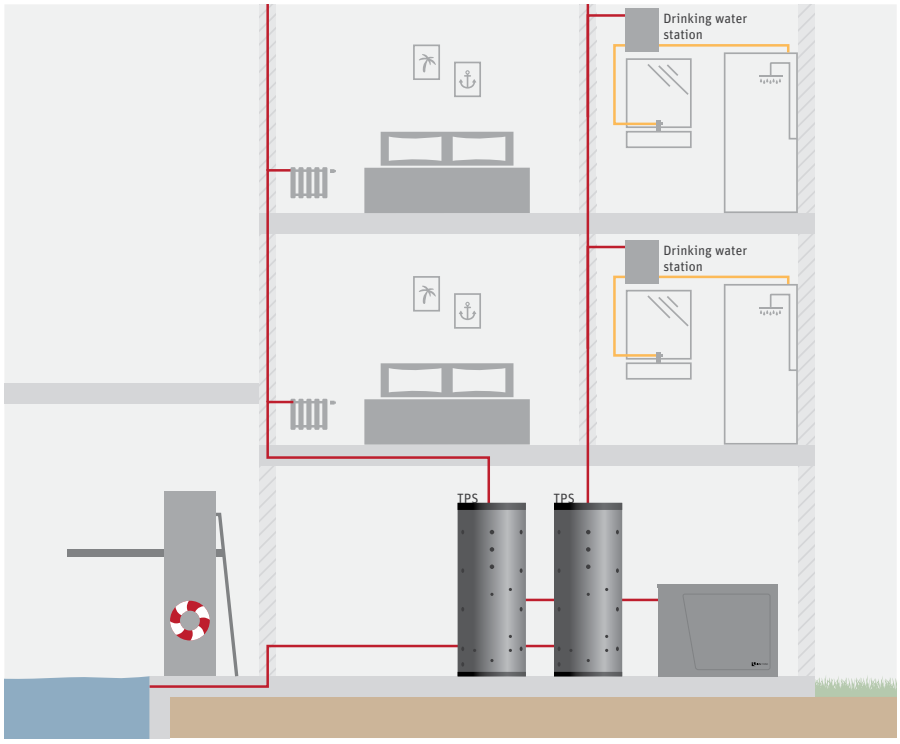
Combination of LWP with TPSK buffer storage tank allows heating and cooling with one system. This is complemented to perfection by the MFS multifunctional tank, which also supplies hygienic domestic hot water.



■ Heating ■ Domestic hot water ■ Cooling

Heating, cooling and domestic hot water preparation with the SWP size 2

The SWP brine/water heat pump size 2 in combination with the TPSK buffer storage tank, ensures efficient heating and cooling with outstanding performance. An accompanying TPSK with drinking water station rounds off the system and provides ample supply of hygienic domestic hot water.



■ Heating ■ Domestic hot water

Heating and domestic hot water preparation with the SWP size 1

Ideal for high output levels, the SWP size 1 brine/water heat pump, supplemented by a TPS buffer storage tank, can heat the entire building including swimming pool. An additional TPS and a drinking water station efficiently provide hygienic domestic hot water.

Project details

Apartment building
Germany

Installed units:
LW 310A, LW 180H-A
Total output: approx. 48 kW

Apartment building, Germany.

The construction of an apartment building in Rimsting am Chiemsee encompasses seven residential units and a total living space of roughly 800 m².

The system requirements imposed not only environmentally-friendly heating, but also ample supply of domestic hot water. A composite system consisting of two alira air/water heat pumps for outdoor installation (an LW 310A and an LW 180H-A) was commissioned.

LWA series heat pumps are the economical solution for low-energy and apartment buildings, for both new builds and modernisation projects. This series is also extremely quiet in operation, meaning that the tenants can concentrate undisturbed on the finer things in life. Intelligent energy management helps landlord to regulate the heating and hot water temperature in a particularly energy-efficient way using timer programs and night-time temperature reduction, which automatically ensures economical operation and optimised heating costs.

Project details

Fossil Europe
Germany

Installed units:
2x SWP 1600
Total output: 323 kW

Fossil Europe, Germany.

Fossil (Europe) GmbH is a global company, which has specialised in the design, marketing and distribution of fashion products. Fossil offers an extensive range of fashionable watches and jewellery and small leather goods and handbags for men and women.

The European headquarter of Fossil GmbH is in Grabenstätt, Germany and apart from office buildings also includes a show room, shop and much more.

The whole Fossil site is heated and cooled by two alpha innotec heat pumps. Due to the size of the buildings, two alterra pro SWP 1600 heat pumps with a total capacity of 323 kW are installed, and these are used for active and passive heating and cooling.

The alterra pro series heat pumps are ideal for industrial applications. The decisive factors in favour of the SWP 1600 were above all its very silent running and large output with only two heat pumps.

Project details

Haus der Flüsse
Germany

Installed units: SWP 371
Total output: 37 kW

Haus der Flüsse, Germany.

The ‘Haus der Flüsse’ in Havelberg serves as an information centre for the Mittelelbe biosphere reserve. In the functional building ecological sustainability was considered in every detail from top to bottom. Not only with the wooden façade the designers had environmental protection in mind: Independence from fossil energy sources and an active contribution to environmental protection logically led to the decision to opt for the durable, reliable technology of an alpha innotec heat pump for heating.

An alpha innotec SWP 371 alterra pro heat pump is installed in the Haus der Flüsse. The geothermal energy needed is acquired through a total of eight borehole heat exchangers. The complete building is also equipped with underfloor heating with additional ventilation system for heating and passive cooling.

alira LWP 45 kW, 3 ~ 400 V

Type	Item no.	Performance data			Unit					Energy efficiency class
Outdoor		Heating capacity [kW]	COP	CO_2 equi-valent [t CO_2]	Outdoor sound pres-sure level [dB(A)]	Refrige-rant fill quantity [kg]	Hermetically sealed	Measurement W x D x H [mm]	Weight [kg]	Heating systems in conjunction with control unit
LWP 450-LUX	100750LUXP02	45,5 | 25,7 [1]	3,51 | 3,69 [1]	48,0	62	23,00	✓	1800 x 850 x 2320	680	A++

[1] Operation with a compressor | All items ar filled with flourinated greenhouse gas R410A, GWP-Value 2088 | Available from September 2017
Technical data listed here is preliminary. Actual values may vary slightly at time of series production

alira LWA 24 – 31 kW, 3 ~ 400 V

Type	Item no.	Performance data			Unit					Energy efficiency class
Outdoor		Heating capacity [kW]	COP	CO_2 equi-valent [t CO_2]	Outdoor sound pres-sure level [dB(A)]	Refrige-rant fill quantity [kg]	Hermetically sealed	Measurement W x D x H [mm]	Weight [kg]	Heating systems in conjunction with control unit
LW 251A [1]	100546LUX02	24,0 | 13,2 [3]	3,60 | 3,80 [3]	17,4	57	9,80	✓	1779 x 1258 x 1817	540	A+
LW 310A [2]	100547LUX02	31,0 | 16,8 [3]	3,50 | 3,60 [3]	39,2	59	10,00	–	1779 x 1258 x 2127	573	A+

[1] All items are filled with flourinated greenhouse gas R407C, GWP-Value 1774 | [2] All items are filled with flourinated greenhouse gas R404A, GWP-Value 3922 | [3] Operation with a compressor
Accessories: LUX 2.0

alira LW 24 – 31 kW, 3 ~ 400 V

Type	Item no.	Performance data			Unit					Energy efficiency class
Indoor		Heating capacity [kW]	COP	CO_2 equi-valent [t CO_2]	Outdoor sound pres-sure level [dB(A)]	Refrige-rant fill quantity [kg]	Hermetically sealed	Measurement W x D x H [mm]	Weight [kg]	Heating systems in conjunction with control unit
LW 251 [1]	10053602	24,0 | 13,2 [3]	3,60 | 3,80 [3]	17,4	53	9,80	✓	795 x 1258 x 1887	540	A+
LW 310 [2]	10053802	31,0 | 16,8 [3]	3,50 |3,60 [3]	39,2	53	10,00	–	795 x 1258 x 1887	540	A+

[1] All items are filled with flourinated greenhouse gas R407C, GWP-Value 1774 | [2] All items are filled with flourinated greenhouse gas R404A, GWP-Value 3922 | [3] Operation with a compressor

All data provided in accordance with EN 14511 for A2/W35
All sound measurements at open air test field, distance of 1m around the air supplies, average

alterra SW 22 – 30 kW, 3 ~ 400 V

Type	Item no.	Performance data			Unit					Energy efficiency class
Indoor		Heating capacity [kW]	COP	CO_2 equivalent [t CO_2]	Refrigerant fill quantity [kg]	Hermetically sealed	Measurement W x D x H [mm]	Weight [kg] Total	Weight [kg] without module box	Heating systems in conjunction with control unit
SW 232H3	10074642	22,4	4,95	6,7	3,20	✓	598 x 665 x 1500	207	65	A++
SW 262H3	10074742	25,6	4,92	6,9	3,30	✓	598 x 665 x 1500	212	65	A++
SW 302H3	10074842	29,6	4,88	7,7	3,70	✓	598 x 665 x 1500	219	65	A++

All items are filled with flourinated greenhouse gas R410A, GWP-Value 2088

alterra pro SWP 37 – 69 kW, up to + 65 °C Size 1

Type	Item no.	Performance data			Unit				Energy efficiency class
Indoor		Heating capacity [kW]	COP	CO_2 equivalent [t CO_2]	Refrigerant fill quantity [kg]	Hermetically sealed	Measurement [1] W x D x H [mm]	Weight [kg]	Heating systems in conjunction with control unit
SWP 371	10061402	37,2	4,80	15,0	7,20	✓	1350 x 1009 x 1030	371	A++
SWP 451	10061502	45,0	4,80	17,1	8,20	✓	1350 x 1009 x 1030	385	A++
SWP 581	10061602	57,6	4,80	23,4	11,20	✓	1350 x 1009 x 1030	441	A++
SWP 691	10061702	68,5	4,60	28,0	13,40	✓	1350 x 1009 x 1030	484	A++

[1] Including flanges | All items are filled with flourinated greenhouse gas R410A, GWP-Value 2088

alterra pro SWP-H 29 – 56 kW, H series up to + 70 °C Size 1

Type	Item no.	Performance data			Unit				Energy efficiency class
Indoor		Heating capacity [kW]	COP	CO_2 equivalent [t CO_2]	Refrigerant fill quantity [kg]	Hermetically sealed	Measurement [1] W x D x H [mm]	Weight [kg]	Heating systems in conjunction with control unit
SWP 291H	10061802	25,9	4,37	9,6	6,70	✓	1350 x 1009 x 1030	319	A++
SWP 561H	10062102	53,8	4,50	18,3	12,80	✓	1350 x 1009 x 1030	521	A++

[1] Including flanges | All items are filled with flourinated greenhouse gas R134a, GWP-Value 1430

All data provided in accordance with EN 14511 for B0/W35

alterra pro SWP 108 – 162 kW, up to + 55 °C — Size 2

Type	Item no.	Performance data			Unit			
Indoor		Heating capacity [kW]	COP	CO_2 equivalent [t CO_2]	Refrigerant fill quantity [kg]	Hermetically sealed	Measurement [1] W x D x H [mm]	Weight [kg]
SWP 1100	10037204	107,5 | 57,0 [2]	4,3 | 4,4 [2]	33,7	19,00	–	1400 x 800 x 1847	870
SWP 1250	10037304	125,1 | 66,3 [2]	4,3 | 4,4 [2]	33,4	18,80	–	1400 x 800 x 1847	935
SWP 1600	10037404	161,6 | 85,6 [2]	4,4 | 4,5 [2]	36,7	20,70	–	1400 x 800 x 1847	1000

[1] Including flanges | [2] Operation with a compressor | All items are filled with flourinated greenhouse gas R407C, GWP-Value 1774

alterra pro SWP-H 70 – 100 kW, H series up to + 65 °C — Size 2

Type	Item no.	Performance data according to EN 255			Unit				Energy efficiency class
Indoor		Heating capacity [kW]	COP	CO_2 equivalent [t CO_2]	Refrigerant fill quantity [kg]	Hermetically sealed	Measurement [1] W x D x H [mm]	Weight [kg]	Heating systems in conjunction with control unit
SWP 700H	10037504	70,0 | 37,1 [2]	4,1 | 4,2 [2]	22,2	15,50	–	1400 x 800 x 1847	930	A++
SWP 850H	10037604	88,0 | 46,5 [2]	4,1 | 4,2 [2]	24,3	17,00	–	1400 x 800 x 1847	935	–
SWP 1000H	10037704	100,0 | 53,0 [2]	4,1 | 4,2 [2]	25,2	17,60	–	1400 x 800 x 1847	965	–

[1] Including flanges | [2] Operation with a compressor | All items are filled with flourinated greenhouse gas R134a, GWP-Value 1430

Explanation

The **CO_2 equivalent** of a refrigerant is calculated by multiplying the fill quantity with the GWP.
The **GWP** (Global Warming Potential) describes the global warming potential of a greenhouse gas compared to CO_2.

All data provided in accordance with EN 14511 for BO/W35

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