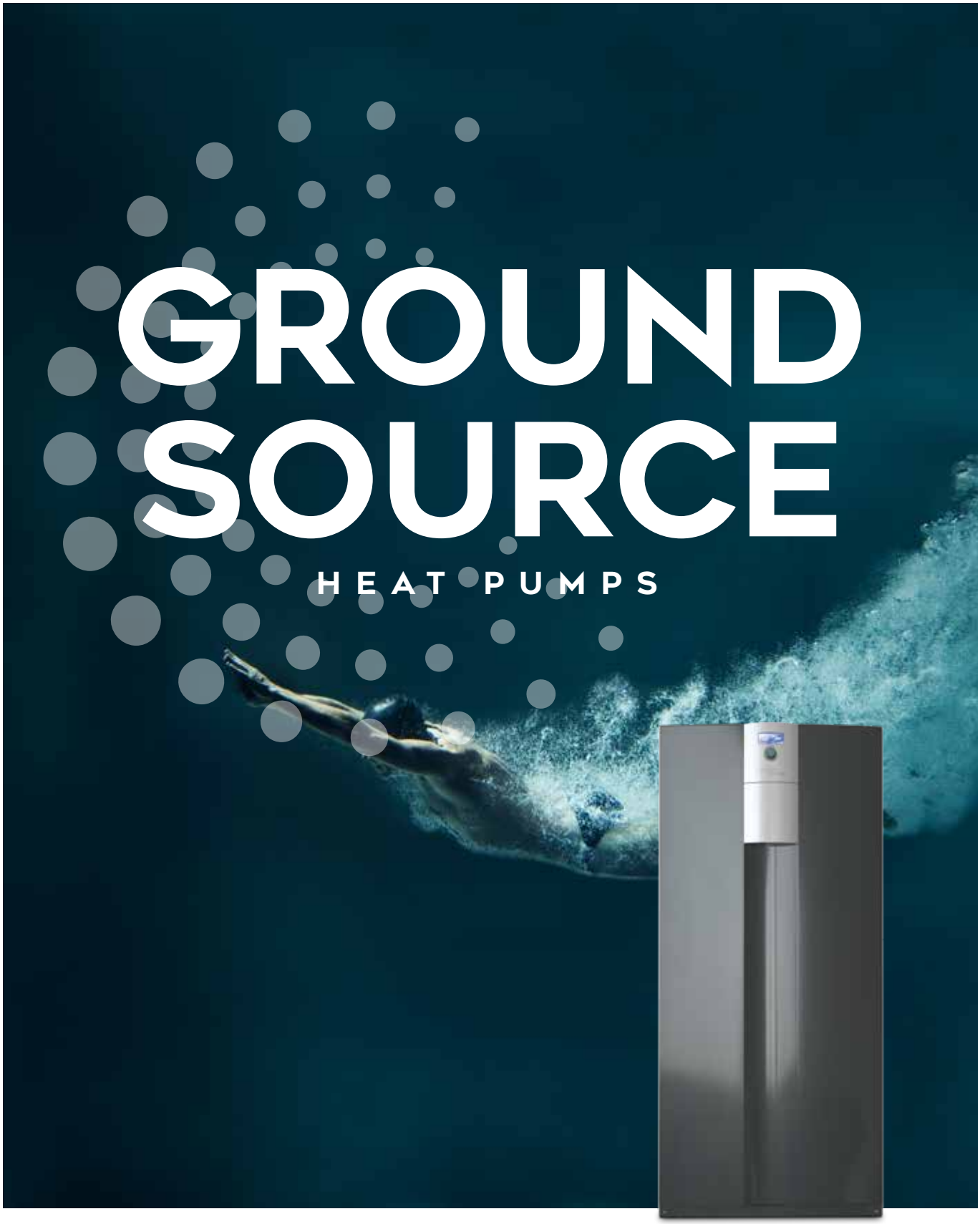
alpha innotec

# GROUND SOURCE

## HEAT PUMPS



**OVERVIEW 2023**

heat pumps

www.alpha-innotec.com


alpha innotec
“We believe in nature’s energy.”

# Our mission: To make heating even more sustainable

Climate change is one of the greatest challenges of our time. We need to find new ways to make our energy networks more sustainable. Avoiding fossil fuels in favour of renewables is a vital step in this direction. Around 75 per cent of the energy consumed in private households is used for heating – mostly via inefficient and outdated heating systems that use environmentally harmful energy sources such as oil or gas.

## For a viable future

Since 1998, we have been developing and producing innovative heat pumps that enable environmentally friendly and energy-saving heating, cooling and hot water preparation. From single-family homes to apartment buildings, commercial and industrial properties and entire housing estates – alpha innotec heat pumps help to reduce $CO_2$ emissions and create a sustainable and viable future.

Let's tackle the challenge of climate change together – you can depend on our know-how and the first-class quality of our products!

# Simply ingenious: Energy from air, soil and water

## Together with alpha Innotec

Heat pumps use energy extremely efficiently: they draw heat from the ground, air or from water and release it as heating energy. Even at sub-zero temperatures, they can extract enough stored solar energy from the environment to heat buildings and supply them with hot water in an environmentally friendly way. Some models also include a cooling function for pleasant room temperatures in hot weather.

**alpha innotec heat pumps obtain around 80 per cent of the energy they need from renewable sources and thus make a decisive contribution to climate protection.**

The innovative **ground source heat pumps** from alpha innotec conduct the heat from the ground via probes or collectors and transfer it to an evaporator or heat exchanger. The recovered heat is used for heating and hot water production. These systems use modern inverter technology to ensure that no excess energy is produced. The heat pump's output is thus continuously adjusted to meet the current demand.

## We have the right solution

Whether for single-family houses, apartment blocks or commercial and industrial buildings – air/water heat pumps are an effective and energy-efficient solution both for new buildings and for refurbishment and modernisation projects. alpha innotec is your competent partner for holistic and future-proof energy concepts – with innovative and high-quality products to meet every challenge.

1. Heat pumps for single-family houses
2. Heat pumps for apartment buildings
3. Heat pumps for residential units
4. Heat pumps for commercial properties
5. Heat pumps for industry

# Ground source heat pumps
## Perfect for your building

**WZS ground source heat stations**
Heating water temperatures of up to 65°C possible.
Includes hot tap water tank, with optional cooling function.
Built-in hydraulics.
Recommended total building power requirement
5 – 12 kW *

**SWCV**
**Ground source heat pump, inverter-driven**
Heating water temperatures of up to + 65°C are possible –
recommended total building power requirement
3 – 17 kW *

**WZSV**
**Ground source heat pump, inverter-driven**
Heating water temperatures of up to + 65°C are possible –
recommended total building power requirement 3 – 17 kW *

**SWC compact ground source heat pumps**
Heating water temperatures of up to + 65°C are possible –
recommended total building power requirement 5 – 19 kW *

**SW ground source heat pumps**
Heating water temperatures of up to 65°C possible.
Recommended total building power requirement
5 – 30 kW *


**SWP compact ground source heat pumps**
Heating water temperatures of up to + 65°C are possible –
recommended total building power requirement * 5 – 19 kW *

* The recommended total building power requirement is the approximate sum of the building's heating load, the power required to heat tap water, possible off-time factors and additional capacity for special uses (e.g. swimming pool).

# First-class quality meets sustainability

**Together with Alpha Innotec**

Many years of experience, intensive research and development and rock-solid craftsmanship make every alpha innotec heat pump a top-quality "Made in Germany" product. You can depend on that. Both today and in the future.

Climate-friendly heat pumps are at the centre of what we do – and have been since 1998. This expertise is evident in our products: alpha innotec heat pumps stand for maximum energy efficiency, innovation, quality, reliability as well as simple installation and operation. In our research and development centre in Kasendorf, Franconia, we work hard every day to make our products even better.

We prepare our heat pumps for daily use in our **in-house laboratories and state-of-the-art test facilities (including climate chambers and sound measurement rooms)**.

Through consistent quality assurance and our work with independent testing institutes, we ensure that our products meet all relevant standards and regulations – from ISO9001 to the European Seal of Quality for heat pumps.

For our partners, we offer qualified training sessions and courses to keep them up to date on our latest technical innovations and product updates as well as the current regulations. In this way, we make sure our customers receive a product that meets all requirements when it comes to ecological and financial sustainability – and with which they are completely satisfied.

# Subsidies

**Subsidies and financing for efficient buildings**

By adapting the available subsidy schemes to our climate protection package, we have made the current subsidies on heat pumps even more attractive. In the best case, a **45% subsidy** is available on the entire heating system. Furthermore, alpha innotec offers a **subsidy service** to help you claim the maximum available funding.

# Contents

## Ground source heat pumps

# Compact and whisper-quiet: WZS/WZSV

These efficient heat pumps require less than half a square metre of space – which means they can be installed in houses of all sizes.

COOLING INCLUDED

**Your benefits at a glance**

- Heating, cooling, hot water
- Extremely compact and space-saving
- Convenient servicing via the front panel
- Very low noise emissions
- Passive (natural) cooling
- Simple transport and assembly
- Cool box can be removed for transport
- Ideal for new-builds, refurbishment projects and to replace older models

## Fast delivery and installation

The cool box can be removed for transport – installation of the heat station with integrated tank and hydraulics is extremely quick. Thanks to its small footprint (< 0.5 m²), it can also fit into any corner.

## Natural cooling in summer

Via passive cooling, excess heat is extracted from the rooms and dissipated into the ground. The existing heating surfaces (e.g. underfloor heating) now serve as cooling surfaces – and create a pleasant climate in hot weather.

## Extremely quiet operation

Our box-in-box system doubles the included sound insulation, which is why our heat pumps are about as audible as a modern refrigerator – and therefore disturb neither the house's occupants nor their neighbours.

### WZS/WZSV

| Type | Art. No. | Performance data | | | | Unit | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| External basic unit | | Heating power BO/W35 min./max. [kW] | Cooling power B15/W25 max. [kW] | COP BO/W35 partial load | $CO_2$ equivalent [t $CO_2$] | Hermetically sealed | Coolant Filling volume [kg] | Dimensions W x D x H [mm] | Weight total [kg] | Weight without module box [kg] |
| WZSV 62H3M | 10072041 | 1.3 – 6.0 | – | 4.86[2)] | 2.1 | ✓ | 1.16 | 598 x 730 x 1850 | 240 | 160 |
| WZSV 92H3M | 10076341 | 1.8 – 8.7 | – | 4.76[2)] | 2.2 | ✓ | 1.25 | 598 x 730 x 1850 | 244 | 160 |
| WZSV 62K3M[1)] | 10072241 | 1.3 – 6.0 | 5.8 | 4.86[2)] | 2.1 | ✓ | 1.16 | 598 x 730 x 1850 | 248 | 160 |
| WZSV 92K3M[1)] | 10076441 | 1.8 – 8.7 | 7.8 | 4.76[2)] | 2.2 | ✓ | 1.25 | 598 x 730 x 1850 | 252 | 160 |
| WZS 42H3M | 10066041 | 4.7 | – | 4.70 | 2.2 | ✓ | 1.05 | 598 x 730 x 1850 | 250 | 160 |
| WZS 82H3M | 10066241 | 7.7 | – | 4.90 | 3.6 | ✓ | 1.72 | 598 x 730 x 1850 | 270 | 160 |
| WZS 102H3M | 10066342 | 9.3 | – | 5.05 | 4.1 | ✓ | 1.98 | 598 x 730 x 1850 | 275 | 160 |
| WZS 122H3M | 10066442 | 12.2 | – | 5.00 | 4.7 | ✓ | 2.25 | 598 x 730 x 1850 | 280 | 160 |
| WZS 42K3M[1)] | 10066541 | 4.7 | 4.3 | 4.70 | 2.2 | ✓ | 1.05 | 598 x 730 x 1850 | 258 | 160 |
| WZS 82K3M[1)] | 10066741 | 7.7 | 7.0 | 4.90 | 3.6 | ✓ | 1.72 | 598 x 730 x 1850 | 278 | 160 |
| WZS 102K3M[1)] | 10066842 | 9.3 | 8.6 | 5.05 | 4.1 | ✓ | 1.98 | 598 x 730 x 1850 | 283 | 160 |
| WZS 122K3M[1)] | 10066942 | 12.2 | 10.8 | 5.00 | 4.7 | ✓ | 2.25 | 598 x 730 x 1850 | 288 | 160 |

[1)] with integrated cooling I [2)] all specifications for partial load

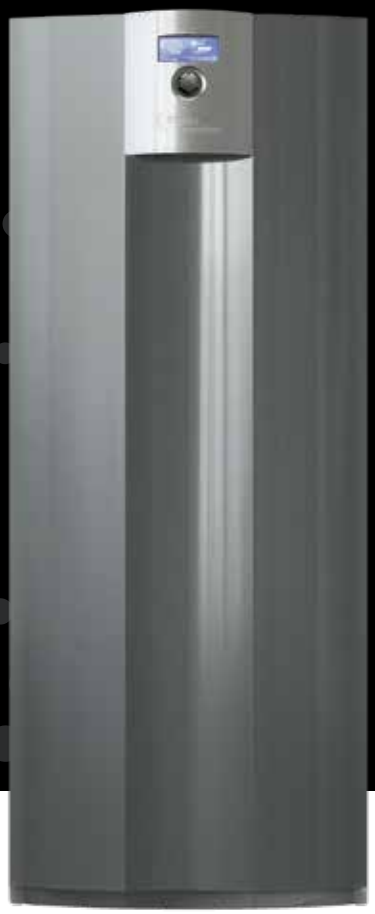
# Flexible and versatile: SWC/SWCV

This highly functional yet quiet heat pump can be flexibly adapted to any requirement – e.g. in combination with a solar energy system.

COOLING INCLUDED

### Your benefits at a glance

- Fast installation thanks to modular system
- Power on demand (frequency controlled)
- Cascade connection possible
- Optional cooling function
- Simple transport and assembly
- Versatile combinations (e.g. solar, ventilation)
- Ideal for new-builds, refurbishment projects and to replace older models



## Supplies heat on demand

The frequency-controlled system adjusts the amount of heat that is generated to meet the current demand within the building and outputs heat accordingly – ensuring optimum heating efficiency at all times.

## Can be combined with solar systems, etc.

Depending on the requirements or building type, our heat pumps can be combined with other heating and regenerative energy systems – in addition, multiple units can be cascaded if a higher output is required.

## Easy installation – virtually anywhere

Thanks to their small footprint, our heat pumps can also be installed in small basements or storage rooms – the pre-assembled units enable quick and easy installation.

### SWC/SWCV

| Type | Art. No. | Performance data | | | | Unit | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Internal basic unit | | Heating power BO/W35 [kW] | Cooling power B15/W25 max. [kW] | COP BO/W35 partial load | $CO_2$ equivalent [t $CO_2$] | Hermetically sealed | Coolant Filling volume [kg] | Dimensions W x D x H [mm] | Weight total [kg] | Weight without module box [kg] |
| SWC 42H3 | 10068041 | 4.70 | – | 4.70 | 2.2 | ✓ | 1.05[3] | 598 x 665 x 1500 | 155 | 65 |
| SWC 82H3 | 10068241 | 7.70 | – | 4.90 | 3.6 | ✓ | 1.72[3] | 598 x 665 x 1500 | 175 | 65 |
| SWC 102H3 | 10068342 | 9.34 | – | 5.05 | 4.1 | ✓ | 1.98[3] | 598 x 665 x 1500 | 180 | 65 |
| SWC 122H3 | 10068442 | 12.18 | – | 5.00 | 4.7 | ✓ | 2.25[3] | 598 x 665 x 1500 | 185 | 65 |
| SWC 142H3 | 10068542 | 13.50 | – | 5.08 | 5.0 | ✓ | 2.38[3] | 598 x 665 x 1500 | 200 | 65 |
| SWC 172H3 | 10068642 | 16.86 | – | 4.93 | 5.5 | ✓ | 2.65[3] | 598 x 665 x 1500 | 205 | 65 |
| SWC 192H3 | 10068742 | 18.60 | – | 4.87 | 5.8 | ✓ | 2.80[3] | 598 x 665 x 1500 | 210 | 65 |
| SWC 42K3 | 10069041 | 4.70 | 4.3 | 4.70 | 2.2 | ✓ | 1.05[3] | 598 x 665 x 1500 | 163 | 65 |
| SWC 82K3 | 10069241 | 7.70 | 7.0 | 4.90 | 3.6 | ✓ | 1.72[3] | 598 x 665 x 1500 | 183 | 65 |
| SWC 102K3 | 10069342 | 9.34 | 8.6 | 5.05 | 4.1 | ✓ | 1.98[3] | 598 x 665 x 1500 | 188 | 65 |
| SWC 122K3 | 10069442 | 12.18 | 10.8 | 5.00 | 4.7 | ✓ | 2.25[3] | 598 x 665 x 1500 | 193 | 65 |
| SWC 142K3 | 10069542 | 13.50 | 12.5 | 5.08 | 5.0 | ✓ | 2.38[3] | 598 x 665 x 1500 | 212 | 65 |
| SWC 172K3 | 10069642 | 16.86 | 14.9 | 4.93 | 5.5 | ✓ | 2.65[3] | 598 x 665 x 1500 | 217 | 65 |
| SWC 192K3 | 10069742 | 18.60 | 16.6 | 4.87 | 5.8 | ✓ | 2.80[3] | 598 x 665 x 1500 | 222 | 65 |
| SWCV 62H3 | 10071541 | 1.25/ 5.95[2] | – | 4.86[1] | 2.1 | ✓ | 1.16[4] | 598 x 665 x 1500 | 145 | 65 |
| SWCV 92H3 | 10076741 | 1.77/ 8.65[2] | – | 4.76[1] | 2.2 | ✓ | 1.25[4] | 598 x 665 x 1500 | 149 | 65 |
| SWCV 122H3 | 10072841 | 2.48 / 13.56[2] | – | 4.87[1] | 3.5 | ✓ | 2.00[4] | 598 x 665 x 1500 | 168 | 65 |
| SWCV 162H3 | 10071641 | 3.20/ 17.20[2] | – | 4.92[1] | 3.9 | ✓ | 2.20[4] | 598 x 665 x 1500 | 180 | 65 |
| SWCV 62K3 | 10071741 | 1.25/ 5.95[2] | 5.8 | 4.86[1] | 2.1 | ✓ | 1.16[4] | 598 x 665 x 1500 | 153 | 65 |
| SWCV 92K3 | 10076841 | 1.77/ 8.65[2] | 7.8 | 4.76[1] | 2.2 | ✓ | 1.25[4] | 598 x 665 x 1500 | 157 | 65 |
| SWCV 122K3 | 10072941 | 2.48/ 13.56[2] | 12.3 | 4.87[1] | 3.5 | ✓ | 2.00[4] | 598 x 665 x 1500 | 176 | 65 |
| SWCV 162K3 | 10071841 | 3.20/ 17.20[2] | 14.9 | 4.92[1] | 3.9 | ✓ | 2.20[4] | 598 x 665 x 1500 | 188 | 65 |

Specifications in accordance with EN 14511 | [1] specifications for partial load | [2] min./max. specifications | [3] filled with refrigerant R410A, GWP 2.088 | [4] filled with refrigerant R407C, GWP 1.774

# Powerful and economical: SW

This powerful heat pump reaches maximum output on demand – up to 120 kW is possible with a cascaded system.

COOLING INCLUDED

### Your benefits at a glance

- Heating, hot water
- Optional cooling function (cooling package)
- Cascadable for max. 120 kW output
- Can be combined with solar thermal energy, etc.
- Highly flexible installation options
- Simple transport and assembly
- Proven control concept
- Ideal for new-builds, refurbishment projects and to replace older models

## Also suitable for apartment buildings

For all buildings with higher energy requirements (such as smaller apartment buildings) several heat pumps can be interconnected (cascade connection).

## Fast delivery and installation

The cool box can be removed for transport, and installation of the heat pump is both quick and easy. Thanks to its compact design and whisper-quiet operation, it can also be installed in living areas.

## Ready for every requirement

If required, the heat pumps can be combined with renewable energy generators (e.g. photovoltaics). An optional cooling function is also available – for a pleasant living climate in high summer temperatures.

### SW

| Type | Art. No. | Performance data | | | Unit | | | | |
|---|---|---|---|---|---|---|---|---|---|
| External basic unit | | Heating power BO/W35 [kW] | COP BO/W35 partial load | $CO_2$ equivalent [t $CO_2$] | Hermetically sealed | Coolant Filling volume [kg] | Dimensions W x D x H [mm] | Weight total [kg] | Weight without module box [kg] |
| SW 42H3 | 10070041 | 4.7 | 4.70 | 2.2 | ✓ | 1.05 | 598 x 640 x 850 | 135 | 45 |
| SW 82H3 | 10070241 | 7.7 | 4.90 | 3.6 | ✓ | 1.72 | 598 x 640 x 850 | 155 | 45 |
| SW 102H3 | 10070342 | 9.3 | 5.05 | 4.1 | ✓ | 1.98 | 598 x 640 x 850 | 160 | 45 |
| SW 122H3 | 10070442 | 12.2 | 5.00 | 4.7 | ✓ | 2.25 | 598 x 640 x 850 | 165 | 45 |
| SW 142H3 | 10070542 | 13.5 | 5.08 | 5.0 | ✓ | 2.38 | 598 x 640 x 850 | 175 | 45 |
| SW 172H3 | 10070642 | 16.9 | 4.93 | 5.5 | ✓ | 2.65 | 598 x 640 x 850 | 180 | 45 |
| SW 192H3 | 10070742 | 18.6 | 4.87 | 5.8 | ✓ | 2.80 | 598 x 640 x 850 | 185 | 45 |
| SW 232H3 | 10074642 | 22.4 | 4.95 | 6.7 | ✓ | 3.20 | 598 x 653 x 1500 | 207 | 65 |
| SW 262H3 | 10074742 | 25.6 | 4.92 | 6.9 | ✓ | 3.30 | 598 x 653 x 1500 | 212 | 65 |
| SW 302H3 | 10074842 | 29.6 | 4.88 | 7.2 | ✓ | 3.70 | 598 x 653 x 1500 | 219 | 65 |

Specifications in accordance with EN 14511 | filled with refrigerant R410A, GWP 2.088

# Small yet powerful: SWP

This compact heat pump provides ample heating energy for larger houses – with extremely low-noise operation.

COOLING INCLUDED

**Your benefits at a glance**

- Heating, cooling and waste-heat utilisation
- Compact dimensions (small footprint)
- For apartment buildings and industrial facilities
- Soundproofed housing
- Silent mode for nighttime operation
- Direct service access via the front panel
- Simple transport and connections
- Ideal for new-builds, refurbishment projects and to replace older models


37 – 53 KW* **depending on the model*

## Perfectly at home virtually anywhere

Thanks to its compact dimensions, this efficient ground source heat pump boasts a small footprint and offers a great deal of planning flexibility. The heating technology is discreetly hidden – and saves valuable space.

## Very low noise emissions

Thanks to the sound-optimised housing and the innovative Silent Mode, this heat pump is extremely quiet – it can be placed near the property's boundaries without disturbing the neighbours.

## Whether residential or commercial

For buildings with higher energy requirements, e.g. apartment buildings or commercial businesses, this powerful heat pump is the optimal solution. It can also be combined with a photovoltaic system if required.


### SWP

| Type | Art. No. | Performance data | | Unit | |
|---|---|---|---|---|---|
| External basic unit | | Heating power<br>BO/W35<br>[kW] | COP<br>BO/W35<br>partial load | Dimensions<br>W x D x H<br>[mm] | Weight<br>[kg] |
| SWP 371 [1] | 10061402 | 37.2 | 4.80 | 1350 x 1009 x 1030 | 371 |
| SWP 451 [1] | 10061502 | 45.0 | 4.80 | 1350 x 1009 x 1030 | 385 |
| SWP 581 [1] | 10061602 | 57.6 | 4.80 | 1350 x 1009 x 1030 | 441 |
| SWP 691 [1] | 10061702 | 68.5 | 4.60 | 1350 x 1009 x 1030 | 484 |
| SWP 291H [1] | 10061802 | 25.9 | 4.37 | 1350 x 1009 x 1030 | 319 |
| SWP 561H [1] | 10062102 | 53.8 | 4.50 | 1350 x 1009 x 1030 | 521 |

All specifications in accordance with EN 14511 | 1) delivery time available on request, motor protection switch and load protection for brine circulation pump to be provided by the customer.

# Make your heat pump even more efficient!

The alpha innotec multifunction tank allows our heat pumps to be easily combined with photovoltaic or solar thermal systems. And since the buffer tank and hot water heating are combined in a single unit, this frees up more space in the boiler room.

Domestic hot water is provided using the hygienic continuous flow principle. This further reduces heating costs and $CO_2$ emissions – for an optimal carbon footprint when heating the building.

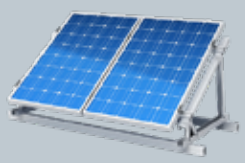
**In combination with a**

## multifunction tank

**Domestic water heating with ...**

**... solar thermal energy**

**... photovoltaics**



**... wood-burning stoves connected to the water system**

# Controlling your heat pump just got even easier!

Whether for monitoring or remote diagnostics – our proven **heatpump24** remote maintenance service allows our heat pumps to be inspected and adjusted from anywhere in the world. The free **myUplink platform**, which puts homeowners in control of their heat pump at all times, has now been added – for example, users can now conveniently adjust the system temperature remotely in real time via their smartphone. In addition, the new myUplink service features a cloud-to-cloud solution that allows the heat pump to be controlled via a voice assistant, such as Alexa or GoogleHome, and also via the Uponor Smatrix control system for panel heating.

## heatpump24

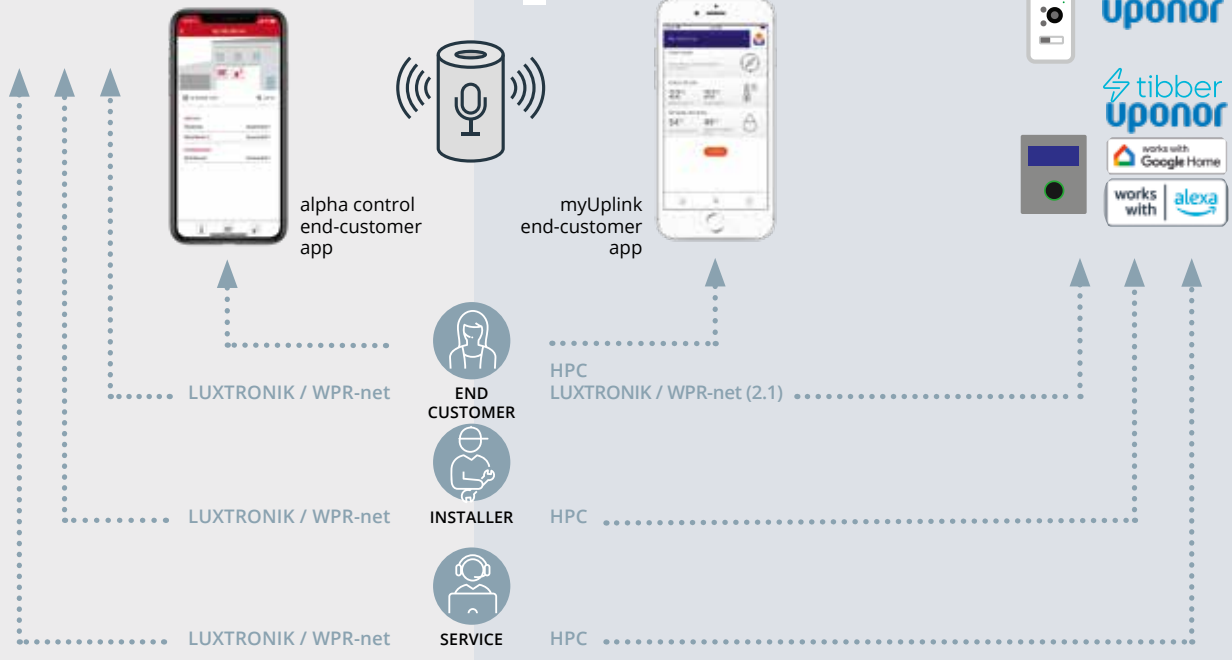
**heatpump24 – perfect for the installer**

- Service platform for remote settings, device analysis and remote maintenance.
- Operating status, running times, temperatures, settings and much more can be viewed and modified easily from anywhere in the world.
- Immediate notification in the event of a fault – optionally via e-mail or text message
- Errors can be read off and reset

## myUplink

**myUplink – maximum convenience for the user**

- End-customer registration at **www.my-uplink.com**
- Access to the heat pump system via the **myUplink App** and **myUplink online portal**
- Receipt of error messages
- Push messages for software updates or faults via the **myUplink app**
- Display and setting options for the following unit functions: heating, cooling, hot water, swimming pool
- Customisable dashboard with history feature
- Connectivity to Google Home and Alexa voice assistants
- Demand-controlled balancing via Uponor Smatrix individual room control system
- Data exchange in real time
- Free



# Always in safe hands – Services from alpha innotec

- **Planning support –** heating load calculation, special planning software, Technical Service Centre
- **alpha subsidy service** – minimum effort guarantees maximum subsidies
- **Connect up heat sources with the company Erdwärme PLUS** incl. planning/design, preliminary geological studies and approval applications through to detailed documentation
- **alpha customer service** – commissioning, warranty, maintenance
- **alpha home** – intelligent individual room control system with control via app
- **alpha service app** – for rapid assistance in the event of faults

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