TERMC⁺ Heat pumps

COMMERCIAL / INDUSTRIAL water / water, ground / water

The most efficient and reliable heating solution for commercial and industrial applications.

2019 WINNER DESIGN PLUS powered by: ISH 64 64 69









Why choose TermoPlus[®]



TermoPlus[®] focuses on overall installation performance, not just the performance of individual components.



One of the longest lasting heat pump brands on the market with units built in 1992 still operational and a 99.5 % reliability score among heat pump owners.

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Every single heat pump unit is individually and thoroughly tested before installation.



R&D labs, production facilities and quality control are all based under one roof within the EU with more than 60 heat pump experts and the experience of more than 60.000 heat pumps manufactured to date.



In-house customer support with a guaranteed 24 hour response time. *



Optional extended warranty available for up to 6 years. **



Tailored support is always available for custom systems.



Assistance available for obtaining eco funding through national and other EU schemes. ***

* For maintenance contracts.

 $\star\star$ In addition to a 3 year guarantee, we also offer an exclusive 3 year warranty!

*** Limited availability in selected markets.

TermoPlus[®] commercial / industrial heat pump benefits

Custom-built heat pumps for large commercial / industrial projects (50 kW - 1000 kW and upwards)

+ Custom-built = unbeatable efficiency

All our commercial / industrial heat pumps are completely tailor-made to increase efficiency between 7 % and 15 % compared to preconfigured out-of-the-box heat pumps.

N Economical and comfortable

To enable even greater control and economy, a multistage heat pump allows you to operate at various output levels. This means you can set it on a lower output on mild weather and use less power or set it on higher levels during more extreme temperatures.

***** Extremely flexible applications

If you use energy-intense applications, produce thermal energy through processes or have any kind of production operation it is highly likely that you could be sitting on a great source of thermal energy. Our industrial heat pumps can capture this energy for you and reach astonishing output ratios of up to 10x your input energy.



✓ Unparalleled support

Your installation and maintenance contractors will always have access to our technical team for support. We are the only heat pump manufacturer on the planet that proactively gets involved in all commercial and industrial installations.

Reliable, durable and environmentally friendly

You can count on exceptional reliability since we only use grade A mechanical components from top European manufacturers and all our products are 100 % tested through extensive quality control at our simulation lab. Environmentally friendly R407C refrigerant is used (or R134A as an alternative).

Long lasting and easy to maintain

Corrosion is less of an issue due to our anticorrosion stainless steel condenser. Spare parts are available for up to 25 years and maintenance is easy to administer. You'll be impressed by our TermoPlus promise.

:: All year use

TermoPlus is one of the very few heat pump manufacturers that offers an Active Cooling feature. Also known as a reversible heat pump, it allows you to reverse the system during summer and pump heat out of the building and into the ground. This results in better comfort levels and efficiency during prolonged periods of extreme temperatures.

• Flexible for retro-fitting

Older buildings that may use radiators require higher temperature water to function compared to newer facilities. Our commercial heat pumps can produce water temperatures up to 65 °C (or more if required) and offer a compromise between efficiency and preserving existing systems.



Advantages of a customised heat pump unit

Customised for efficiency

As a general rule, the key determinant of heat pump system efficiency is the actual design and installation process. Tailoring the system typically increases output efficiency between 7 % and 15 % compared to typical installations. TermoPlus is currently the only heat pump manufacturer worldwide that works closely with installation contractors to tailor product parameters for each project. Contractors have full access to us for design consultations and on-site engineers get engineering support through remote tools.

Higher ROI

By design, our customised units offer everything the project needs and no costly features that it doesn't. The systems are sized for the project which also means there isn't any wasted capacity or a need for investment in supplemental capacity. The very long lifecycle of the units attributed to purpose-built design and industrial-grade components will result in many more years of problem-free service. All of this coupled with a design optimized for long-term efficiency means a significantly lower lifetime cost and a higher ROI.

Designed for purpose

The system is built entirely for purpose and around the end user's needs. No sacrifices are needed in terms of output, usability or performance.

Flexibility and adaptability

Due to modularity there is no need to fully replace the entire system if an upgrade is required or if the system requirements change. Components can be replaced, repaired or upgraded as needed.



Industrial-grade construction

Our commercial / industrial heat pumps are built for reliability, efficiency and good financial sense. The heat pumps are built to the highest possible standard using heavy-duty industrial-grade components. The modular design allows for component interchangeability adding to the future-proofing of the system. We only use the most reliable hardware and software throughout to achieve a legendary product lifespan. Starting from the most basic unit the system is equipped with the necessary foundations for modular upgrades and modifications. Future upgrades are easily supported both in terms of software and hardware.



Superb efficiency and return on investment

Commercial spaces or industrial buildings with high heating and cooling costs can achieve amazing returns by installing a TermoPlus heat pump. For every 1 kWh of energy consumed the heat pump can produce roughly up to 6 kWh of thermal energy – in some cases the coefficient of performance (COP) can be as high as 10 when using both the heating and cooling effects of the heat pump. Our industrial-grade heat pumps typically pay for themselves within 3.5 years or even less if you receive government subsidies or a grant for the system.

Specifications



Heat Source

TermoPlus commercial / industrial heat pumps can utilise the following heat sources: the heat from the earth through a horizontal collector or a vertical borehole heat exchanger, the heat from surface water and groundwater as well as the waste heat harvested from technological and other processes.

Model	Heating capacity [kW]	Cooling capacity [kW]***	Max. heating water temp. [°C]	Min. water cooling temp. [°C]	Max. Performance Levels	Operating limits - source temp. [°C]	Refrigerant
AQUApump H	7,6 -183,3*	6,3 - 152,1*	+60	+7	3	+7 to +25	R407C
AQUApump HR	22,0 - 263 ,7*	17,0 - 200,1*	+80	+7	3	+15 to +45	R134A
AQUApump AC	6,9 - 478,5*	5,7 - 400,5*	+55	+7	3	+7 to +25	R407C, R410A
TERRApump H	5,1 - 123,6**	3,9 - 96**	+60	+7	3	-10 to +25	R407C
TERRApump HR	13,3 - 160,5**	10,1 - 123,3**	+80	+7	3	+10 to +45	R134A
TERRApump AC	4,6 - 336,0**	3,5 - 262,5**	+55	+7	3	-10 to +25	R407C, R410A

Data refers to a single unit. Up to 4 units can be connected in a cascade system, quadrupling heating and cooling power.

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Unit dimensions depending on model setup (WxHxD) [mm]: Large: 2200 x 1775 x 721 Medium: 721 x 1775 x 721.

* Technical data are given at evaporation temperature +7 °C and condensation temperature +40 °C.

** Technical data are given at evaporation temperature -5 °C and condensation temperature +40 °C.

*** Only for Active Cooling version.

TERRAPUMP PRO

Ground-source geothermal

Terrapump Pro is our ground-source geothermal heat pump system for commercial or industrial applications. This unit can be used for either horizontal or vertical designs.

AQUAPUMP PRO Water-source geothermal

Aquapump Pro is our water-source geothermal heat pump system for commercial or industrial applications. These heat pumps can be used for underground water.

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Terrapump Pro can be used with horizontal or vertical ground-source designs. Aquapump Pro can be used with open loop water-source designs and Terrapump Pro for closedloop water-source designs.

Versions

H - Heating

The heating (H) version of the commercial / industrial heat pumps is optimised for heating. The unit is designed for reliability and optimum efficiency for space heating and / or for the production of domestic hot water. These applications require the system to provide a broad operating temperature range as well as to efficiently and reliably reach condensing temperatures as high as 65 °C.

HR – Heat Recovery

The heat recovery (HR) version is designed for the recovery and reuse of available (waste) heat. Recovered thermal energy significantly contributes to reducing the total energy cost of an installation. Common sources of thermal energy are processes such as washing, drying, pasteurization and waste heat from refrigeration or other sources. As an example, heat recovery on the condensing water loop of a watercooled chiller can be used to produce high temperature water for sanitary use or space heating. With a typical evaporating temperature between 20 °C and 40 °C and a condensing temperature of up to 85 °C, HR heat pumps offer many opportunities for energy savings through heat recovery.

AC – Air Conditioning

The air conditioning (AC) version of the commercial / industrial heat pumps is designed for the central heating and cooling of buildings with an existing infrastructure that may use fan coils, wall or underfloor heating / cooling. The AC version, as a ground-source or water-source heat pump, offers significant advantages over standard air-source and VRF systems: significantly greater efficiency, a more stable operation, less maintenance requirements and a reduced refrigerant charge. Not to mention, no more noisy outdoor units cluttering the space.



Options



Active Cooling

Also known as a reversible heat pump, this option allows you to reverse the system during summer and pump heat out of the building and into the ground. This results in better output and efficiency during prolonged periods of extreme temperatures. This is the recommended choice for increased efficiency, performance and economy. It is also particularly suited for mild and warmer climates where a lot of cooling is also needed.

Multiple Compressors

Using multiple compressors allows multi-stage operation. By switching between various output levels you can achieve a better balance between output and economy. This is because output can be tailored to meet actual demand.



Full Web Control Via App

The app allows you to measure the savings you achieve using the heat pump and allows you to control the system as you wish. The system can also automatically receive software updates and allows you and our support engineers to monitor its performance.

Cascade Operation

Cascade operation allows the connection and operation of numerous heat pumps into one heating system. Doing this can achieve scalable heating output.

