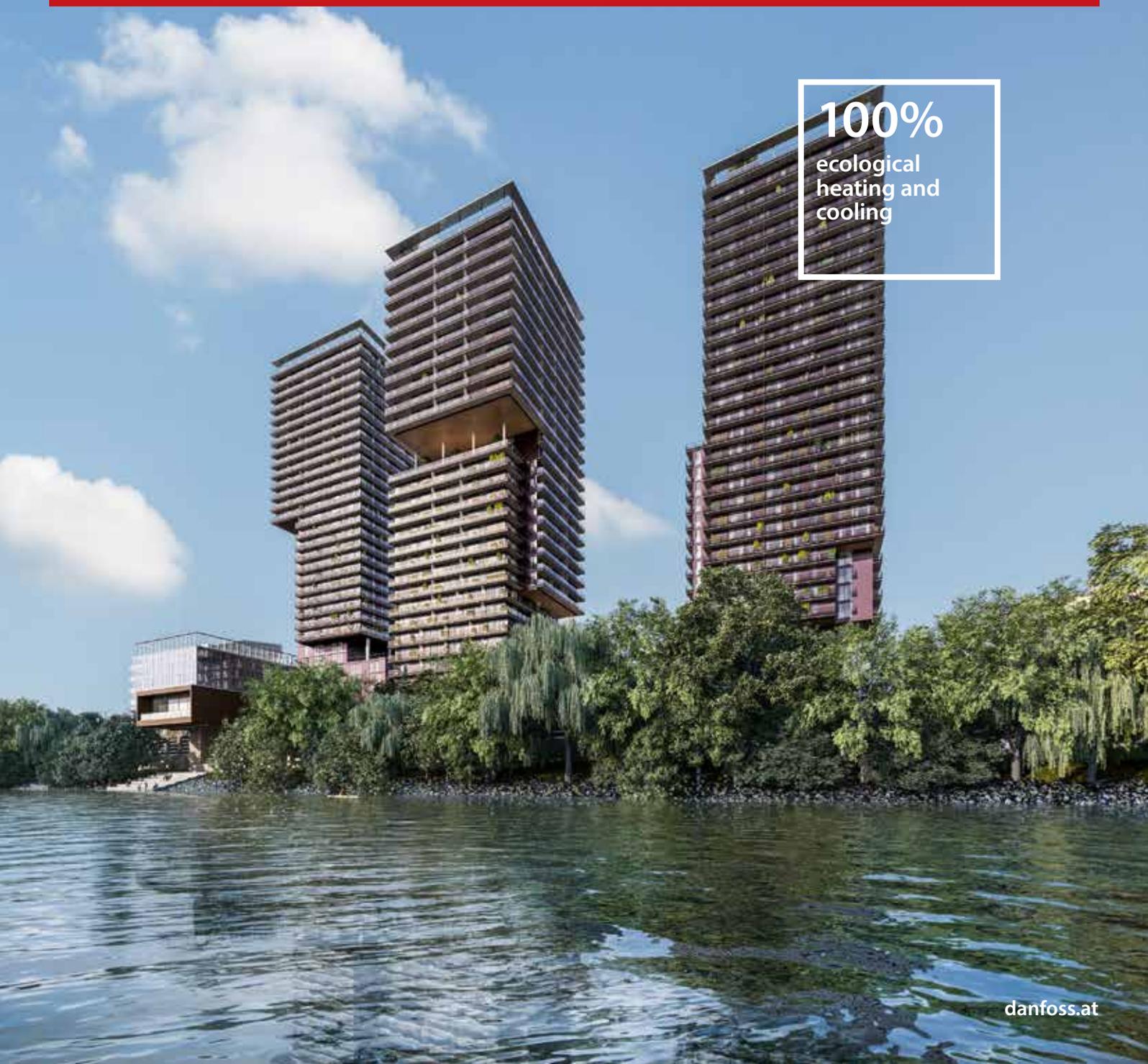


Case story | TRIIIPLÉ Project

TRIIIPLÉ

Heating and Cooling from the power of the Danube

The TrIIIple is an imposing high-rise ensemble in the middle of Vienna. The river water from the directly adjacent Danube Canal serves as an energy source for heating and cooling. Danfoss provides specially adapted flat-stations and frequency converters for maximum operational safety and for a pleasant feel-good climate in the buildings.



100%
ecological
heating and
cooling



Directly on the quietly flowing Danube Canal, between the modern city centre of Vienna and the extensive recreation area Grüner Prater, an imposing and widely recognizable high-rise ensemble is built - the TRIIPLE.

The project by Soravia and ARE Austrian Real Estate is designed by architects Henke Schreieck. It consists of three building towers and connects city, land and river as well as modern living and working.

The towers, which are about 100m high, house 500 apartments and 670 high-quality micro-apartments for students and young professionals. The concept is rounded off with shops, offices, restaurants, a medical centre and an in-house kindergarten.

Sustainability

Not only the architecture and the concept, are exceptional, future-oriented and sustainable, but also is the building technology that is used.

The buildings are cooled and heated in a resource-saving manner using innovative technology. The river water from the nearby Danube Canal serves as an energy source.

Heat pumps use the evaporator-compressor process to uncouple hot and cold water as needed. This makes it possible to heat and cool the entire project autonomously without any CO2 emissions.

“We chose Danfoss because we rely on their products with high functionality and quality. Above all, we receive reliable service and proven emergency management in the event of technical failures. This gives us, the owners and the residents the greatest possible operational security.”

– Viktor Plasch, engineer at Klenk & Meder

Danfoss frequency converters ensure operational safety

Danfoss VLT®AutomationDrive FC302 and VACON 100 Flow are used in the hydroelectric power plant. The frequency converters ensure a reliable operation of the heat pumps and control the cooling and heating water pumps. They improve flow control, extend the service life of the heat-pumps and thus contribute significantly to the energy efficiency and safety of the technical solution.

Company Klenk & Meder is responsible for the energy supply in Tower 1 and chose Danfoss VACON 100 Flow frequency inverters.

Viktor Plasch, engineer at Klenk & Meder, explains why: “The hydroelectric power station is located in Tower 1. It provides energy to the three towers and the nearby Austro Tower. The smooth functioning of building technology is always essential, but in a project of this size, it is particularly important and furthermore is a great responsibility to

us. We chose Danfoss because we rely on their products with high functionality and quality. Above all, we receive reliable service and proven emergency management by Danfoss in the event of technical failures. This gives not only us, but also the owners and residents the greatest possible operational security.”

Energy efficiency and feel-good indoor climate with Danfoss flat-stations

Specifically, tailored Danfoss Flat Stations have been designed to fit the needs of the project and to ensure both, optimal feel-good climate as well as energy efficiency.

Herwig Plank, planner at Böhm Gebäudetechnik, developed the flat-stations together with Danfoss: “We faced the challenge to meet high technical requirements as well as aesthetic ones. A large number of apartments with different preconditions should be equipped with stations that work perfectly and require little space.”



“We faced the challenge of meeting both technical and aesthetic requirements. With Danfoss, we have found a partner with whom we have developed a tailor-made housing station that meets all requirements.”

– Herwig Plank, Planner at Böhm Gebäudetechnik

The result of this collaboration is a unique flatstation that offers surface heating, cooling and decentralized hot water heating in one.

Herwig Plank: “With Danfoss, we have found a partner with whom we have developed a tailor-made station for the project. The flat-stations fit seamlessly into the predetermined rooms, and the space is ideally used from a technical point

of view by attaching the connections specifically at the top and thus preventing space problems in drywall construction.”

In addition, a quick and simple heating control set has been added, which enables residents to easily choose between heating and cooling – individually by apartment, regardless of the central system.



Key data Trillple

- 70.000 m² of total usable area
- 500 free-funded apartments from 33 m² to 165 m²
- Around 670 micro-apartments
- Office and commercial space in the base zone

Danfoss products and solutions

Danfoss VACON Flow 100

Danfoss VLT® AutomationDrive FC302

Danfoss Flat-Stations

Danfoss Radiator and Room Thermostats

Danfoss Heating Cables



Danfoss Flat-station

“The combination of heating and cooling in residential construction is becoming more and more standard. Danfoss Climate Solutions as the market leader is in a unique position to support such projects.

Our customers are looking for compact, reliable and standardized systems that can still be serviced by local skilled workers for many years to come.

In the Trillple project, there was very close and good cooperation between planning, general contractor, skilled tradesmen and the Danfoss sales team from the very beginning. This allowed us to develop a suitable solution for the project. We are very proud of this flagship project in Vienna.”

– *Christian Mader, Sales Director, Residential Heating*



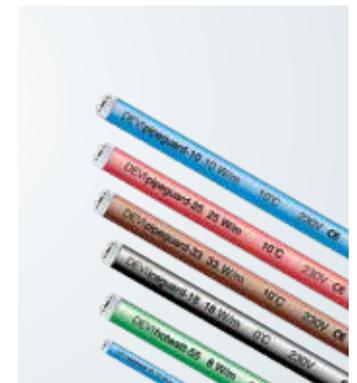
*VLT® AutomationDrive
FC 301/FC 302*



Danfoss Radiator Thermostats



VACON® 100 FLOW



Danfoss Heating Cables