



ACP Engineering, s.r.o.



The System Designers Trust for Their Own Spaces

ACP Engineering designs and sells HVAC equipment, so when it came time to choose a system for their new headquarters in Pardubice, they turned to a provider they already trusted. Daikin's VRV 5 Heat Recovery system delivered the performance, flexibility, and design integration they wanted - in one sustainable package.

Installed systems:

- VRV 5 Heat Recovery (REYA10A)
- 11 Round Flow Cassette indoor units (FXFA-A)
- 1 Emura wall-mounted unit
- Madoka controllers

Location

Country: Czech Republic
City: Pardubice





VRV 5 indoor units provide whisper-quiet cooling and heating without disrupting meetings

When every detail matters, these HVAC experts chose VRV 5

As HVAC specialists, ACP Engineering knew exactly what they wanted in a new heating and cooling system: optimal comfort in every room, year-round efficiency, and a design that fit the building's sleek, modern aesthetic. With high expectations and deep technical expertise, they chose Daikin's VRV 5 Heat Recovery system - the first 3-pipe R-32 VRV 5 installation in the Czech Republic.

Comfort That Adapts to Every Season

The new office features a contemporary layout with large glass façades on both the north and south sides, creating a unique heating and cooling challenge. During transitional seasons like spring and autumn, parts of the building need cooling while others require heat. The VRV 5 Heat Recovery system makes this easy. It uses recovered energy from one zone to condition another, minimizing energy consumption while maintaining ideal indoor conditions throughout the space.

Inverter-driven control allows the system to adjust output based on demand, so even a single room stays comfortable without wasted energy. And with ultra-quiet operation and fast temperature response, the system supports a seamless experience from morning to night.



Round Flow Cassette units with black decorative panels

Project requirements

- Air conditioning
- Controls
- Heating
- Ventilation

Year of Installation

2023

Total Capacity

28 kW

VRV 5 Heat recovery unit recovering waste heat from cooling areas for other heating

"The new VRV 5 system was a suitable solution because it allows waste heat to be transferred from one half of the building to heat the offices on the opposite side. This means that we have a comfortable environment throughout the building, the system works economically and is easy to control. The indoor cassette units and the Emura wall-mounted unit in black were also a clear choice for the architect in terms of design."

Ing. Jan Málek, Owner, ACP Engineering

Solution and system components

- VRV 5 Heat Recovery (REYA10A)
- 11 Round Flow Cassette indoor units (FXFA-A)
- 1 Emura wall-mounted unit
- Madoka controllers

Efficiency That Goes Beyond the Expected

By transferring energy between zones, the VRV 5 system reduces overall consumption and lowers operating costs without sacrificing comfort. The system runs on R-32 refrigerant, which offers lower global warming potential than traditional alternatives, and integrates easily with building management systems (BMS) for even greater efficiency. Features like off-hours setback modes help ACP Engineering meet its long-term sustainability goals without compromising day-to-day performance.

Designed to Disappear

The system's sleek black Madoka wired controllers, Emura wall-mounted unit, and recessed Round Flow Cassette units were all chosen in collaboration with the building's architect to complement the modern interior. Compact and discreet, the system was also easy to install with minimal piping and a small rooftop footprint - preserving valuable space both indoors and out.



Daikin Emura wall-mounted units in black for design consistency

A Milestone for Modern HVAC

As the first 3-pipe R-32 VRV 5 installation in the Czech Republic, the project represents a major step forward in sustainable HVAC design. For ACP Engineering, the system delivers exactly what they set out to achieve - and shows what's possible when performance, aesthetics, and efficiency come together.



Why VRV 5 Was the Right Solution?

Daikin's VRV 5 Heat Recovery system is designed to support the next generation of buildings, combining high efficiency, lower environmental impact, quiet operation, and a compact, flexible design in one high-performance system making it a smart, future-ready choice for sustainable projects.







High seasonal efficiencies



Low GWP



Indoor units operate as quiet as 28 dB(A)



High flexibility