

## Case Study

# Air-conditioning for a data centre in Norway

### WHY | The challenge.

CTS Nordics is a company specialising in design and built of data centres in the Nordic region. The challenge was to air-condition a state-of-the-art data centre in Kristiansand, Norway, in a way that could efficiently manage the enormous heat loads of modern servers. The project involved developing the first of six buildings. The main challenge was managing the intensive heat loads of the servers, which exceed the capacities of conventional air cooling systems.

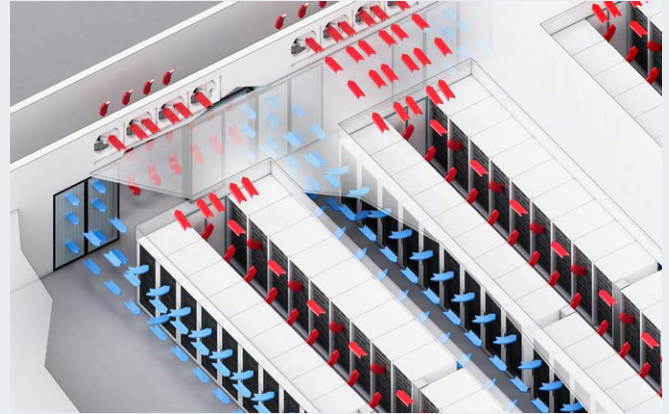
### HOW | The idea.

Standard air cooling systems can typically handle a heat load of up to 25 kW per rack, which was insufficient for the requirements of this project. The main objective was to find a cooling solution that could handle a higher heat load of 32 kW per rack in a limited space. This made Weiss Klimatechnik's Vindur CoolW@ll<sup>®</sup> system, renowned for its exceptional cooling capacity and room efficiency, the preferred solution for the project. A CFD analysis also showed that the heat load could be safely dissipated using this room-based cooling system.

### WHAT | The solution.

Weiss Klimatechnik delivered a state-of-the-art cooling solution with patented CoolW@ll technology. The proposed configuration included 48 CoolW@ll modules, which were chosen for their ability to handle the high heat load of the servers. The compact design of the Vindur CoolW@ll, which can handle higher heat loads in smaller spaces, was a key factor in the selection and enabled a significant reduction in space compared to conventional cooling methods.

The implementation of the CoolW@ll system in the first building of the data centre campus represented a significant step forward in the use of cooling systems. It demonstrated the ability to handle unprecedented heat loads in a high-density data centre environment, setting a new standard for similar projects in the future. Furthermore, the success of this project has led to ongoing negotiations for additional projects with CTS Nordics, underlining the efficiency and reliability of Weiss Klimatechnik's solutions.



#### The advantages:

- Efficiently handles up to 32 kW heat load per rack.
- The compact design saves a considerable amount of space.
- The reduced energy consumption saves costs.
- The solution is transferable and scalable to other projects.



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