

New Air Handling Unit Kits to increase comfort in commercial buildings

Daikin has launched **new expansion valve kits and a control box** for the **easy connection of Daikin DX (Direct eXpansion) outdoor units with Air Handling Units**. Operating with refrigerant R-32 and R410a, these kits offer an energy-efficient and low carbon solution for **heating**, **cooling and fresh air control** to ensure optimal comfort in any commercial spaces.

Vienna, December 2023 – "The connection between Air Handling Units (AHUs) and DX outdoor units through Daikin's latest offering brings notable advantages to commercial spaces by enhancing indoor comfort and ensuring high energy efficiency, requirements that becoming a standard today", says Tanja Banay, General Manager Strategic Business Unit Commercial at Daikin Central Europe.

DX systems immediately change the cooling or heating capacity to provide a steady indoor temperature without energy loss. Furthermore, Daikin's VRV 5 inverter units use refrigerant R-32 with lower Global Warming Potential (GWP) of 675 to significantly reduce the carbon footprint of commercial buildings. This helps businesses to achieve their sustainability objectives, while ensuring the solution is future-proof.

Packaged solution for more convenience

The latest **Air Handling Unit Kits** for connection to DX outdoor units can be used with any R-32 (or R-410A) DX coil Air Handling Unit. However, to simplify delivery while increasing cost-effectiveness, the Japanese manufacturer with almost 100 years in pioneering innovations for heating, cooling and ventilation offers now a **packaged solution** with several configuration options enabling effective customization to suit individual needs: This packaged solution consists of a

- Daikin DX outdoor unit and
- Daikin Air Handling Unit with the
- expansion valve kit (EKEXVA) and
- control box (EKEACB).







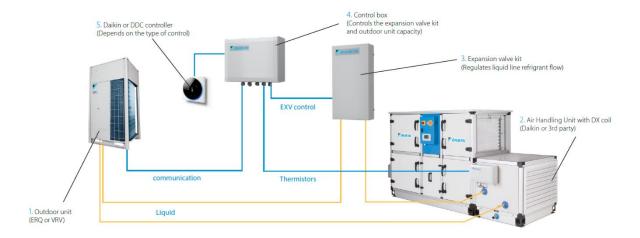
With **five control modes** available, designers can select the most suitable solution to achieve the desired set room temperature. The kits can be used in extreme weather conditions down to -20°C.

Easy installation

The addition of three new capacities (300, 350, and 400) provides a **complete range of expansion valve kits from 5 to 69.3 kW** to match any building requirement. If a Daikin Air Handling Unit is chosen, the expansion valve kit and control box are factory-fitted, providing immediate compatibility. This allows for an easy and faster installation, while offering the benefits of a plug-and-play solution.

System components

To integrate AHU's with a DX system five key elements are needed. Find below a short overview of the components and their function.





- 1. A **DX outdoor unit** (example: VRV 5 outdoor unit), offers a fast response to adapt the capacity required to achieve the desired room temperature at low running costs.
- 2. A **Daikin Air Handling Unit**, or a unit from a third-party provider, equipped with a **DX (Direct eXpansion) heat exchanger** ensures the delivery of fresh air at the designated discharge temperature, eliminating any occurrence of cold drafts. Thanks to Daikin's dedicated software an easy selection of a proper **air handling solution along with the outdoor unit up to 150 kW** is possible with multiple circuits.
- 3. The **expansion valve kit** regulates the refrigerant flow (and as such the delivered capacity) to the Air Handling Unit.
- 4. The **control box** regulates the expansion valve kit and outdoor unit capacity based on the input of the controller and sensors/thermistors. Depending on the type of control and thermistor placement the regulation can be done on the supply or return air temperature or via the evaporating / condensing temperature.
- 5. A **Daikin Digital controller** offers a communication protocol between the DX outdoor unit, control box and AHU with quick response time in varying the load to meet the desired set room temperature.

More information

Expansion valve kit (EKEXVA): https://www.daikin-ce.com/en_us/products/product.html/EKEXVA.html

Control box (EKEACB): https://www.daikin-ce.com/en_us/products/product.html/EKEACB.html

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About

Daikin Airconditioning Central Europe

Daikin Airconditioning Central Europe was founded in 1999 with headquarters in Vienna, Austria, as a subsidiary of Daikin Europe N.V. The company's portfolio comprises products and solutions for heating, cooling, ventilation, air purification and refrigeration. More than 700 employees and 2,500 partners are responsible for sales and service activities in 16 countries in Central and Eastern Europe (Austria, Albania, Bosnia Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Kosovo, Montenegro, Moldova, North Macedonia, Poland, Romania, Serbia, Slovakia and Slovenia). With Your Daikin World at the Vienna headquarters, the HVAC-R industry and the construction sector have access to a modern experience center for co-creating tailor-made solutions for hotels, retail, offices, and large commercial applications. It also includes one out of nine training centers in the region of Daikin Central Europe.







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