

New Air Handling Unit Kits to connect AHU's to DX outdoor units

Brussels, 21 November 2023 – Daikin has announced the launch of new expansion valve kits and control box, for easy connection of Daikin DX (Direct eXpansion) outdoor units with Air Handling Units. The new kits also operate with the lower GWP refrigerant R-32, providing a low carbon solution for heating, cooling and fresh air that creates an optimal comfort for commercial spaces.

Making the decarbonisation of buildings easier while increasing comfort

Connecting Air Handling Units (AHU's) to DX outdoor units offers significant benefits for commercial spaces, optimising indoor comfort while delivering high energy efficiencies. DX systems respond immediately to changing loads in the fresh air temperature, resulting in a steady and comfortable indoor temperature, without energy loss.

Furthermore, the latest VRV 5 inverter units are using the lower GWP refrigerant R-32. Therefore they can significantly reduce the carbon footprint of buildings, helping businesses to achieve their green objectives, while ensuring the solution is future-proof.

Convenience and choice

The latest EKEA expansion kit has been enhanced significantly, offering the simplicity and cost-effectiveness of a packaged solution with increased flexibility and configuration options to enable effective customisation to suit individual needs.

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. With five control modes available, designers can choose the most suitable solution, balancing ease of integration and response times. Kits can be used in extreme weather conditions down to minus 20°C.

One-stop offer

Daikin's AHU kits can be used with any R-32 (or R-410A) DX coil Air Handling Unit, however to simplify supply, Daikin offers a packaged solution. This contains a Daikin DX outdoor unit and Daikin AHU with the expansion valve kit and control box factory fitted, offering off-the-shelf compatibility, with a single point of contact. Selection of one of the AHU solutions reaching air flows up to 140,000 m³/h is easy thanks to Daikin's dedicated software.



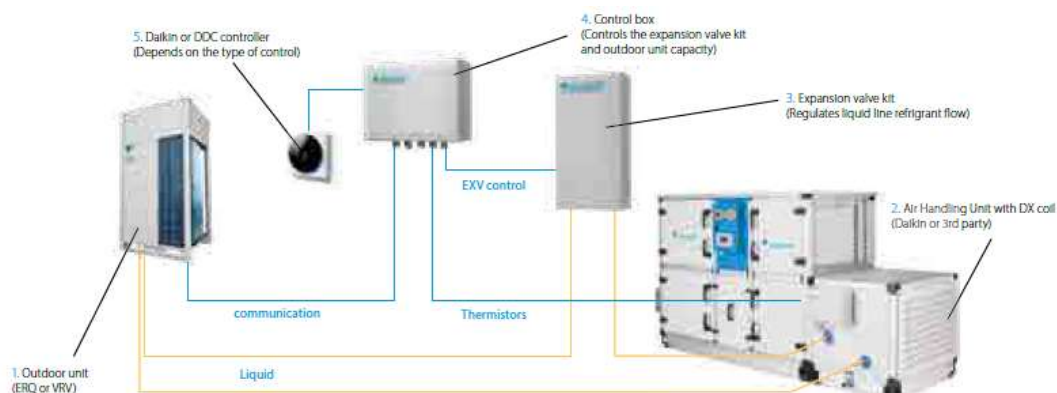


Joao Teixeira, VRV product specialist at Daikin says:

“We are working continuously to develop innovative products with a lower CO₂ footprint, aimed at delivering net zero commercial buildings. Enabling the integration of VRV 5 heat pumps with AHU systems, the EKEA expansion valve kit offers convenience and simplicity with the potential for further customisation to ensure optimal energy usage, while using lower GWP refrigerants like R-32 to reduce environmental impact.”

System components

To integrate AHU's with a DX system 5 key elements are needed. 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 changing load demands and low running costs
- 2) A Daikin (or third party) AHU with DX (Direct eXpansion) heat exchanger. The DX heat exchanger replaces the water-based heat exchanger. All the other elements of the AHU remain the same



- 3) The expansion valve kit that regulates the refrigerant flow (and as such the delivered capacity) to the AHU
- 4) The control box that 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 or DDC controller which, depending on the controller, will offer a balance between ease of integration and response time to changing loads

For more information, [download the brochure](https://www.daikin.eu/content/dam/internet-denv/catalogues_brochures/commercial/257%20-%20AHU%20connection%20kits%20for%20DX%20systems%20flyer.pdf): https://www.daikin.eu/content/dam/internet-denv/catalogues_brochures/commercial/257%20-%20AHU%20connection%20kits%20for%20DX%20systems%20flyer.pdf

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About Daikin

Daikin Europe N.V. Ltd.

Daikin Europe N.V. is a subsidiary of the global group Daikin Industries Ltd., and the leading provider of heating, cooling, ventilation, air purification and refrigeration (HVAC&R) technology in Europe, Middle East and Africa. Daikin designs, manufactures, and brings to market a broad portfolio of products, maintenance services as well as turnkey solutions for residential, commercial, and industrial purposes. To date Daikin Europe has over 13,700 employees across more than 57 consolidated subsidiaries. It has 14 manufacturing facilities based in Belgium, the Czech Republic, Germany, Italy, Spain, Austria, the United Kingdom, Turkey, the United Arab Emirates, and the Kingdom of Saudi Arabia. The headquarters of the Daikin Europe group are in Ostend, Belgium. The company was established in 1972, production in Europe started in 1973.

Daikin Industries Ltd.

Daikin Industries was founded in 1924, in Osaka, Japan. The global group employs over 96,000 people worldwide and is the market leader for heat pump and air conditioning systems, as well as air filtration. It is the only manufacturer in the world that develops and manufactures heating, ventilation, air conditioning and refrigeration equipment, as well as refrigerants in-house. The company achieved € 28.2 billion sales turnover in fiscal year 2022 (1 April 2022 – 31 March 2023).

Read more on www.daikin.eu and www.daikin.com.

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