Daikin presents new VRV low carbon heat pumps

**Brussels, 20 October 2023 – Daikin reveals further details of its 2 new VRV 5 Heat Pump systems, launching first half of 2024. Offering extended capacities for the mini VRV of up to 33.5 kW and a new top blow range reaching 56 kW, the latest additions join the existing compact mini VRV and Heat Recovery versions. Designed to help decarbonise commercial buildings, the new heat pumps significantly reduce both direct and indirect environmental impact, while delivering the unparalleled simplicity and flexibility in design and installation for which Daikin VRV systems are acclaimed.**

**Flexible heat pump technology adapts to any commercial building**

An air-to-air heat pump solution, the VRV 5 system provides year-round heating and cooling. Extended piping lengths of up to 1,000 m facilitate configuration across all types and sizes of commercial buildings. Additionally, a choice of five low sound settings down to 41 db (A) ensures compliance with urban planning requirements, while enhancing on-floor comfort levels.

**Significantly reduces the CO2 footprint of buildings**

Purposely designed for the refrigerant R-32, the new VRV 5 heat pump helps to accelerate the much-needed decarbonisation of commercial buildings. R-32 has a lower Global Warming Potential (GWP) of only 675 and carries heat more effectively than R-410A, resulting in a lower refrigerant charge. Combined, R-32 offers a reduction of the system’s potential direct CO2 equivalent (CO2-eq) emissions by up to 71%, in line with the F-gas regulations.

In addition, the new heat pumps have an increased seasonal efficiency (of up to 9.1%) compared to the previous models, reducing their indirect impact. Efficiency values are tested with the most-selling units to ensure an accurate representation of true energy consumption.

The low carbon attributes of VRV 5 make it a natural choice for projects where environmental impact is a priority. A network of accredited experts is available to support customers in calculating the whole life carbon impact for the VRV 5 solution and to help maximise BREEAM, LEED or WELL accreditations.

**Shîrudo Technology provides peace-of-mind**

Daikin’s unique Shîrudo Technology addresses the legal requirements of IEC60335-2-40, a specific product standard referring to the mildly flammable characteristics of R-32. Shîrudo Technology’s factory supplied refrigerant control measures, which are third party certified, allow the installation of VRV5 systems in any building and for any room space. Shîrudo Technology effectively removes the need for additional and often complex studies every time installation details and/or space layouts are changed.

**Integrating smart indoor units, IAQ units and controls for an all-in-one solution**

As with any other VRV 5 outdoor series, the new VRV 5 Heat Pumps are compatible with a wide range of specially-designed R-32 indoor units including Biddle air curtains, offering maximum flexibility for all room configurations. Both decentralised ventilation units and centralised Air Handling Units can be integrated with the new heat pumps to ensure a healthy and comfortable indoor environment.

User-friendly and intuitive controllers make operation easy and ensure the system runs in the most comfortable and efficient way. Energy consumption can be further reduced through connection to Daikin’s latest Daikin Cloud Plus platform which delivers continual energy monitoring and advanced insights. Daikin Cloud Plus also benefits installers by enabling diagnostics and field settings to be carried out remotely.

George Dimou, VRV systems product manager at Daikin says:

“There has never been a greater focus on supporting the decarbonisation of buildings and the heating, ventilation, air conditioning and refrigeration (HVAC-R) market has an important role to play. It is up to all of us to apply available solutions, such as VRV 5 and make the transition to lower GWP VRV systems now.”

The Daikin VRV 5 Heat Pump RXYA models will be available from February 2024, VRV 5 S-series RXYSA series from June 2024. For more information, [sign up](https://seminars.daikin.eu/#!/authenticate/register?eventId=324) for Daikin’s digital launch event on 16th of November at 09.30 CET, or visit www.daikin.eu/VRV5

**References and abbreviations**:

1. VRV = Variable Refrigerant Volume (VRV) system. VRV is invented by Daikin but has been reproduced by many others since, referring to them as VRF systems. The VRV system can control each indoor unit separately, which in combination with inverter technology, enables the system to deliver precise temperature regulation. As a direct expansion system, VRV exploits the superior heat transfer characteristics of refrigerant over water, resulting in very high efficiencies compared to other available technologies.
2. Direct environmental impact: A heat pump’s direct impact or emissions mainly come from refrigerant leakages on site. Proper installation and regular maintenance can keep these emissions to a minimum. Additionally switching to a lower GWP refrigerant (like R-32) reduces the direct impact in case of a leakage.
3. Indirect environmental impact: A heat pump’s indirect impact or emissions mainly come for the emissions related to the electricity used to operate the heat pump. The more efficient a heat pump runs, the lower these emissions are.
4. dB(A) = A-weighting is applied to measured sound levels to approximate how sound is perceived by the human ear, as the ear is less sensitive to low audio frequencies.
5. CO2-eq = A carbon dioxide equivalent or CO2 equivalent, abbreviated as CO2-eq is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.
6. Whole life carbon = covers the entire CO2-eq impact of a product, taking into account raw material extraction, production, maintenance, operational energy use and disposal. This is also referred to as the cradle-to-grave Life Cycle Assessment (LCA) model.

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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](http://www.daikin.eu/) and [www.daikin.com](http://www.daikin.com/).

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