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Cooling for all Edge Scenarios – From Single Racks to Entire Data Centres

- **A world-first: a hybrid system with 35 kW cooling output**
- **Other highlights: refrigerant-based solutions with 20 kW and 35 kW outputs and a new generation of water-based IT cooling systems for environments with high air humidity**
- **High degree of redundancy ensures the high uptime required for edge solutions**

Rittal has added 20 and 35 kW output classes to its portfolio of refrigerant-based IT cooling solutions, meaning it can now offer a cooling solution from 3 kW right through to 55 kW.

The portfolio also includes a world first: a 35 kW hybrid version that will utilise indirect free cooling where conditions are suitable, making it highly energy-efficient.

Compact cooling systems are also available in high-redundancy configurations. These meet the need of today's IT infrastructure for high uptime – which is of particular importance for state-of-the-art edge computing solutions to ensure the uninterrupted flow of data.

Hybrid solution with natural cooling when conditions are suitable

The innovative liquid cooling package (LCP) DX/FC Hybrid includes both a refrigerant circuit (DX = direct expansion) and a separate water circuit (CW = cold water). This means that the solution can deliver the required cooling output very efficiently, in line with external temperatures.

It's a particularly cost-effective solution for locations with low to moderate ambient temperatures as it automatically switches to indirect free cooling when outside temperatures are low, using its external hybrid condenser with integrated free cooler. This use of indirect free cooling is key to helping lower operating costs.

Efficient, space-saving refrigerant-based solutions

The new LCP DX solutions for suite cooling have outputs of 20 kW and 35 kW and suit small to mid-sized environments. Both devices are inverter-controlled and ideal for cooling IT hardware. They can precisely control the server inlet air temperature with a maximum deviation of approximately 2 kelvin. The cooling output is continuously adjusted in line with heat loss in the rack, minimising energy consumption for cooling, and cutting IT operating costs.

Space-saving rack cooling with the typical “back-to-front” air routing used in IT can be delivered through the roof-mounted cooling unit, even for smaller output categories (up to 3 kW).

The LCU DX IT cooling unit is compactly designed and offers cooling outputs of 3 and 6.5 kW, with or without redundancy. In order to save space, the internal unit is installed between the 19-inch rack and the side panel. This solution, designed for maximum uptime, has two external units but only one internal unit. Inside is a heat exchanger with two cooling circuits, two power supply units and two separate controllers. It automatically switches over to its backup mode in the event of faults or when operating-hour thresholds are reached, increasing reliability in IT facilities that need to operate around the clock.

It reports any faults to the Rittal CMC III monitoring solution, and can also maximise energy efficiency by cooling individual racks, rather than the entire environment.

High-performance cooling with water

Rittal's product suite includes water-based LCP CW rack and bayed suite cooling systems. Here too, the company is adding new products in the shape of IT cooling units with high cooling outputs - up to 55 Kw - and a small footprint of only 0.36 m², enabling the best possible use of available space.

Their high water inlet temperatures allow greater use of indirect free cooling, again, reduce operating costs. They can be deployed in conjunction with a heat pump, as their LCP CW glycol coolants can generate high water return temperatures.

Use in environments with high air humidity

The special features of these units include improved condensate management through an innovative spray eliminator employed in some LCP Inline CW models.

As a result, they are ideal for areas with high air humidity or low water inlet temperatures. Furthermore, a new plug-and-play mount means that the fan unit can be replaced without the need for tools.

New IT cooling brochure

A complete overview of Rittal's IT cooling solutions, is available in the company's new brochure which can be accessed online -

<https://wordpress.com/post/rittallimited.wordpress.com/1403>.

Further information on Rittal's innovative cooling systems and solutions is available at:

www.rittal.com/de_de/it-configurator.

Ends

Press Information

Richard Andrews
Marketing Services Manager
Email: information@rittal.co.uk

Image

Pictures show:

Rittal Edge Cooling Image 1 (fri180426310): Natural cooling when conditions are suitable: the new LCP DX/FC Hybrid includes both a

cooling circuit and a separate water circuit. When temperatures are low, the solution automatically uses indirect free cooling. The core component of this cost-effective solution is an external hybrid condenser with an integrated free cooler.

Rittal Edge Cooling Image 2 (fri180426610): Space-saving choice for high-performance cooling: Rittal's water-based LCP CW rack and in-row cooling systems are designed for high-performance cooling in IT environments. They have cooling outputs of up to 55 kW and a footprint of only 0.36 m². High water inlet temperatures allow greater use of indirect free cooling, reducing operating costs.

Notes

Rittal, headquartered in Herborn, Hessen, Germany, is a leading global provider of solutions for industrial enclosures, power distribution, climate control and IT infrastructure, as well as software and services. Systems made by Rittal are deployed across a variety of industrial and IT applications, including vertical sectors such as the transport industry, power generation, mechanical and plant engineering, IT and telecommunications. Rittal is active worldwide with 10,000 employees and 58 subsidiaries.

Its broad product range includes infrastructure solutions for modular and energy-efficient data centres with innovative concepts for the security of physical data and systems. Leading software providers Eplan and Cideon complement the value chain, providing interdisciplinary engineering solutions, while Rittal Automation Systems offers automation systems for switchgear construction.

Founded in Herborn in 1961 and still run by its owner, Rittal is the largest company in the Friedhelm Loh Group. The Friedhelm Loh Group operates worldwide with 18 production sites and 78 international subsidiaries. The entire group employs more than 11,500 people and generated revenues of around €2.2 billion in 2014. For the seventh time in succession, the family business has won the accolade "Top German Employer" in 2015.

Further information can be found at www.rittal.com and www.friedhelm-loh-group.com.