

# **Press release**

Rittal Limited



December 2013

## **Save Energy by Cooling with Water**

Rittal air/water heat exchangers are capable of cooling the air in an enclosure to a temperature lower than that of the ambient air. Heat to be removed is transferred to a water circuit and may be conveyed to a remote location before being dissipated. The lack of dependence on ambient air results in a maximum operating ambient air temperature of 70 °C. Air is recirculated inside the enclosure maintaining an ingress protection category of IP 55.

Cooling with water may also be considered from an energy saving perspective. Air/water heat exchangers supplied with the eComfort controller incorporate the Eco-Mode control functionality. This employs an intelligent strategy to effectively target the use of energy by disabling the internal fan when the temperature inside the enclosure falls to a predetermined level below the setpoint. The fan is then pulsed periodically to ensure the accuracy of the sensed temperature before being permanently enabled when the temperature rises above the predetermined level.

Although the capital cost of a cooling system incorporating multiple air-to-water heat exchangers and a single water chiller may be greater than that of an equivalent number of refrigerant based cooling units, energy savings are typically in the region of 40 per cent. Efficiency of water cooling systems may be further improved, particularly in the climate of the United Kingdom, by locating water chillers externally and integrating dry air coolers to take advantage of free cooling.

(240 words)

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## **Image**

Air/Water Heat Exchanger.jpg

Caption: Rittal Air/Water Heat Exchanger

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## **Note to Editor**

Rittal Limited founded in the UK in 1979 and based in Hellaby, South Yorkshire is a subsidiary of Rittal GmbH & Co. KG. Rittal Limited supply enclosures, enclosure systems and accessories for the electrical, electronic and datacommunications industries throughout the UK. The Enclosure Systems have full compatibility and integration capability with Rittal's Power Distribution components and Thermal Management Systems.

Rittal has its headquarters in Herborn, Germany, and is one of the world's leading system suppliers for enclosures, power distribution, climate control, IT infrastructure and software & services. Customers from all sectors of industry, from mechanical engineering to the IT and telecoms market are making use of system solutions from Rittal.

Its broad product range also includes complete solutions for modular and energy-efficient data centres: from innovative security concepts for data systems through to physical data and system security for IT infrastructures (formerly known as Lampertz). The leading software provider Eplan and the software and consultancy company Mind8 supplement the Rittal product portfolio with interdisciplinary engineering solutions.

Founded in 1961, Rittal is now active worldwide with 10 production sites, 64 subsidiaries and 40 agencies. With 10,000 employees worldwide, Rittal is the largest company of the proprietor-run Friedhelm Loh Group based in Haiger, Germany. The entire group employs 11,500 people and generated revenues of about €2.2 billion in 2011. Further information at [www.rittal.com](http://www.rittal.com) and [www.friedhelm-loh-group.com](http://www.friedhelm-loh-group.com).