

# Rittal LCP High Density Cooling

RimatriX5 : Enclosures • Power • **Cooling** • Security • Monitoring+Remote Management



## Safely bringing chilled liquids into the Data Center

Data center heat loads have increased dramatically as more components are squeezed tighter into densely packed rack space. Yet most mission critical servers are still being cooled using fans, air conditioners or a combination of the two. Frequent hot spots, rising cabinet temperatures and a patchwork of quick fixes are only band-aids that get around the obvious solution - high density cooling of the data center using chilled liquid.

## A modern approach with roots in the past

Using chilled liquid in the data center is nothing new - water cooled mainframes were common into the 1990s - but the last decade has been dominated by fan and air conditioner solutions. As heat loads have risen the search for a better method for cooling the data center has led history to repeat itself with the use of chilled fluid systems.

## Liquid cooling - super efficiency at your fingertips

Liquids have a very high thermal capacity (around 3,500 times greater than air) which makes them ideal for removing heat from a data center cabinet. Conveniently, many modern data centers already have a source of cooled liquid readily available. Rittal also offers a complete line of proven chiller products to circulate cold liquids if an on-site system is needed.



Rittal Chillers - compact, efficient



Rittal LCP Standard - intelligent directed air cooling

## The Rittal Liquid Cooling Package (LCP) air/water heat exchanger line - multiple options, cooler cabinets

Piping chilled liquid through a Rittal LCP system protects your sensitive components by creating a carefully controlled cooling environment for maximum uptime. Much like an automobile radiator, a Rittal LCP system cools heated rack components with liquid cooled forced air. Rittal LCP systems are available in many configurations to tackle the exact heat load needs of your data center.

## No worries about liquid in the data center (no added heat either) and unit servicing is made simple

Rittal LCP systems and chillers use only spill-proof fittings and include built-in overflow trays for added peace of mind. The liquid and air routes are closed loop systems that do not add any additional heat into your data center environment. The LCP components are also hot swappable so you don't have to take your critical data room servers down to service a unit.

## Part of the proven Rittal RimatriX5 family

RimatriX5 is Rittal's all inclusive data center product line - proven modular enclosures, power management systems, cooling solutions, security components and monitoring+remote management tools.

