

Johnson Controls launches scalable liquid cooling solution for high-density data centres

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Johnson Controls, the global leader in smart, safe, healthy and sustainable buildings, has expanded its data centre thermal management offerings with the launch of its Silent-Aire Coolant Distribution Unit (CDU) platform.

This latest addition to Johnson Controls' end-to-end thermal management portfolio enables data centres to seamlessly transition to liquid cooling as rack densities rise. The Silent-Aire CDUs offer a wide range of scalable cooling capacities from 500kW to over 10MW in flexible designs that are uniquely tailored to suit the needs of any data centre deployment.

"The launch of this expanded series of CDU technology marks a pivotal step in our commitment to advance data center cooling, from chip to chiller," said Austin Domenici, vice president and general manager, Data Center Solutions at Johnson Controls. "By collaborating with leading ecosystem players in the hyperscale, colocation and semiconductor industry, we've engineered an innovative and scalable platform that meets the demands of next-generation AI training and inference hardware, delivering consistent performance and reinforcing our role as a strategic partner to data center professionals scaling for the digital economy."

With the rapid growth of AI and increasing demand for computing power, denser chips are generating more heat, making cooling innovation a critical priority. Silent-Aire CDUs allow for precision cooling of this equipment, enabling data center owners and operators to deploy the latest in semiconductor technology. Positioned either within the rack row adjacent to heat-generating equipment or in the whitespace perimeter, Silent-Aire CDUs are designed for flexibility to support a wide range of liquid-cooling

configurations and hybrid designs to deliver precise, efficient cooling of high-performance environments ranging from edge-based inference to large AI factories.

This launch is built on Johnson Controls' broad portfolio of existing Silent-Aire, York and M&M Carnot thermal management products that serve data centers worldwide. By adopting Johnson Controls' comprehensive thermal management solutions, owners and operators can significantly improve total facility efficiency. Since 2020, large data centers have typically devoted more than 30% of their energy to cooling and other non-IT functions. However, Johnson Controls' solutions can reduce non-IT energy consumption by more than 50% in most North American data center hubs. For a gigawatt-scale AI factory, this reduction translates to enough energy savings to power over 200,000 households annually.

Johnson Controls manufactures the Silent-Aire CDUs at facilities across North America, Europe and Asia Pacific. With more than 1.8 million square feet of production floorspace, this global footprint helps to increase capacity needed to meet the accelerated pace of data center development. A robust network of over 40,000 field and service technicians backs Johnson Controls' building technology to ensure reliable service, maintenance and parts delivery worldwide.

In 2025, Johnson Controls was named a top thermal management provider for data centres by [ABI Research](#), recognising its excellence in innovation, implementation and customer-centric approach.