Nidec Corporation

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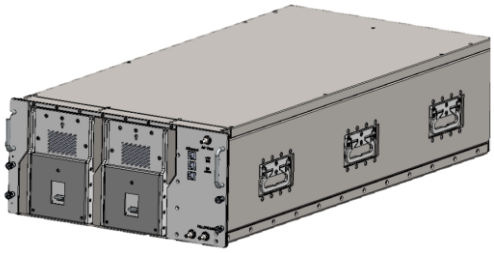
Nidec Develops In-Rack CDU with Up to 300 kW Cooling Capacity

- Addressing Rising Data Center Heat Density Driven by Advanced Generative AI Models -

Nidec Corporation (hereafter, "Nidec") has developed a prototype In-Rack CDU*1 with a cooling capacity of up to 300 kW to address the rising thermal load in data centers driven by the widespread adoption of generative AI. This product delivers industry-leading cooling performance and stands as Nidec's highest-capacity In-Rack cooling solution to date. Nidec will debut this prototype at "Interop Tokyo 2026," held at Makuhari Messe starting Wednesday, June 10, 2026.



Product Image

In recent years, the rapid advancement of generative AI models has led to an exponential increase in server heat generation. Consequently, cooling systems are required to deliver higher cooling capacities than ever before. To meet these market requirements, Nidec has developed a new In-Rack CDU that can be installed inside server racks while providing up to 300 kW of cooling capacity. The introduction of this product enables customers, including data center operators and server manufacturers, to achieve both high-density implementation and the stable operation of high-heat-generating AI servers.

Key Features

1. Exceptional Cooling Capacity of Up to 300 kW

- Delivers high cooling performance that supports the deployment and stable operation of high-heat AI servers by providing up to 300 kW of cooling capacity.

2. High Reliability via Advanced Monitoring Functions

- Equipped with both internal and external leak sensors, along with real-time monitoring capabilities for temperature, pressure, flow rate, and liquid levels.
- Contributes to the safe and stable operation of data centers by promptly detecting and notifying operators of any anomalies.

3. Compatibility with Diverse Rack Specifications, Including OCP Standards

- Ensures high compatibility with industry-standard rack systems in addition to conforming to the OCP ORV3 standard rack specifications widely adopted in cutting-edge data centers.
- Flexible enough to be deployed across diverse environments, from step-by-step liquid cooling retrofits using existing infrastructure to the new design of next-generation AI data centers.

Moving forward, Nidec will leverage feedback from exhibition visitors and customers, aiming to commence mass production in the first quarter of 2027 as a next-generation liquid cooling solution compatible with the industry's latest chips.

*1 CDU: Coolant Distribution Unit