Immersion Cooling Equipment

FOURIER
Cooling Solutions

Edge Node Integrated Immersion Cabinet

Overview

Powered by Fourier's innovative immersion system, the solution is equipped with dedicated 10–100 kW chiller and requires no municipal water supply. It delivers a simple, low-maintenance architecture that integrates seamlessly with DeepSeek appliances. The system supports edge-integrated racks with ≥40 kW per-rack density, combining high reliability with energy efficiency.

An optional heat recovery module is available, providing 40–90 °C hot water output.

Features

Ultimate Performance

- Per-Rack Capacity: Supports 1–5 full-performance LLM appliances (NVIDIA or AMD versions), as well as GPU servers.
- High-Density AI Infrastructure: Delivers over 40 kW per rack with dedicated cooling sources, eliminating the need for complex water supply systems.
- Prefabricated Immersion System: Includes water-free cooling sources and prefabricated immersion tanks, with optional integration of UPS, battery systems, and power distribution units.

Energy Saving

- When ambient temperature is below 26 °C, the liquid cooling system operates entirely on free cooling, reducing power distribution demand while achieving a PUE below 1.25-energy efficiency comparable to medium and large-scale data centers.

Safe and Reliable

- Configured with N+1 fans and N+1 electronic pumps, designed as hot-swappable FRUs for rapid on-site replacement.
- All-in-one systems or servers are placed in dielectric fluid, fully isolated from air, eliminating the impact of salt-laden air.

Adapted to Harsh Environments

- Supports ambient temperatures up to 65 °C, with liquid cooling systems adaptable to operate in 25/45 °C, 38/45 °C, and 40/50 °C. Compatible with major server types.