

Immersion Liquid Cooling for Quantum Communication Edge Data Centers



Overview

Immersion cooling - where servers are submerged in thermally conductive but electrically insulating fluids - addresses many edge infrastructure challenges: Compact and Modular Designs: Immersion tanks can be engineered as self-contained modules, combining compute, power . Immersion cooling - where servers are submerged in thermally conductive but electrically insulating fluids - addresses many edge infrastructure challenges: Compact and Modular Designs: Immersion tanks can be engineered as self-contained modules, combining compute, power . LiquidCool Solutions is the only company combining Total Liquid Immersion with Directed Flow (direct-to-chip) in a standard 19" rack. Because liquid cools 1,000x better than air, we can provide high density computing – up to 4kW per server. Our products are easy to install and suited for. Advanced AI chips are generating more heat in data centers, necessitating improved cooling solutions. Liquid cooling is becoming a viable alternative to traditional fan-based systems. Proposed techniques include circulating water through cold plates, circulating boiling liquid through cold plates. The partners will present their first dielectric-immersion cooling solution at Data Centre World Paris 2025 on November 5-6 on Valeo's booth November 4, 2025—Paris—Valeo, a global leader in thermal systems, and 2CRSi, a leading manufacturer of high-performance servers and storage solutions. A clear business case is emerging for liquid cooling in data centers. Advises high tech, consumer electronics, and automotive and assembly clients on digital and agile R&D transformations; leads the firm's work with product development and procurement in Seattle Global leader of McKinsey's (Gen)AI. Motivair by Schneider Electric has introduced the MCDU-70, an industry-leading 2.



Article Content

A review of the immersion liquid cooling technology for high ...

This paper provides a comprehensive analysis of ILC technology, examining coolant classification and selection criteria, the operating principles and performance of various liquid-cooling

LiquidCool Solutions: Immersion-Cooled Rack Servers

Meet soaring compute demands efficiently with LiquidCool Solutions' versatile, immersion cooling for high-performance GPU dense servers. Perfect for data

Data Center Liquid Cooling: The AI Heat Solution

Advanced AI chips are generating more heat in data centers, necessitating improved cooling solutions. Liquid cooling is becoming a viable alternative to traditional fan-based systems.

Valeo and 2CRSi Announce Strategic Partnership to Develop

"This collaboration is set to drive innovation in the rapidly growing edge data center market. With 2CRSi, we found a highly competent partner supporting us in the ambition to offer our

Immersion liquid cooling for electronics: Materials, systems ...

The current work systematically reviews the research progress on immersion cooling technology in electronic device thermal management, including the properties of immersion coolants,

Keeping cool in the data age

immersion cooling: The server is submerged in a liquid that absorbs heat directly from components, with the heat transferred to a secondary cooling loop. In addition to operational

Liquid cooling solutions for AI and high-density data

Explore why data center liquid cooling is essential for optimizing performance, reducing energy costs, and enabling the scalability required for next-generation

Designing the Next Generation of Edge Data Centers with Immersion

This article explores how immersion cooling is transforming edge data center design, the benefits it brings, and key considerations for deploying immersion-cooled edge facilities at scale.

Optimizing AI Performance with Immersion Cooled Data Centers

The Cisco-GRC partnership delivers a transformative solution for modern data center and edge deployment challenges. By combining Cisco's compute infrastructure expertise with GRC's cooling

Liquid and Immersion Cooling Options for Data Centers

Learn about the future of data center cooling and how liquid cooling solutions support high-density computing and enhance performance and energy efficiency. Explore our solutions now!

The Definitive Guide to Modern Data Center

The data center landscape in 2026 represents a fundamental paradigm shift from centralized to distributed intelligence, from human-operated

AI Data Center Market, Size, Share & Trend Analysis

Major trends include GPU-based AI servers, liquid cooling adoption, AI workload optimization, hybrid AI deployment, edge AI infrastructure, high-speed networking, sustainable green data centers, and AI

5G and Edge AI | Introl Blog

With 5G promising sub-10ms latency and edge AI market reaching \$45 billion by 2030, telecommunications providers and cloud operators race to deploy GPU infrastructure at cell towers,

FinancialContent

Combining its deep expertise in hardware, liquid cooling, and AI acceleration, 2CRSi delivers next-generation cloud infrastructure tailored to enterprises, institutions, and data centers

SpaceX and Anthropic Forge Game-Changing Access to the

On the data center side, the PUE hovers at an industry-leading 1.12 year-round, thanks to the liquid-cooling loops and heat-recovery chillers. Waste heat from GPU cabinets is routed

Green AI techniques for reducing energy consumption in AI systems

Efficient data-center design is therefore essential. Key practices include integrating renewable energy sources, adopting advanced cooling methods (liquid, immersion, free cooling), and

Data Center Liquid Cooling Market to Reach US\$29.2

The global data center liquid cooling market is growing at an exceptional pace, expected to be valued at around US\$5.7 billion in 2026 and

Home » Open Compute Project

Numana and Open Compute Project Establish Quantum Collaboration 1st Quantum Communication OCP Experience Center Now Available for Public Research

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

