

AI Server Liquid Cooling Industry Chain

Overview

AI Datacenter Liquid Cooling Market is segmented by Cooling Technology (Direct-to-chip liquid cooling, Immersion cooling, Rear-door heat exchangers), Deployment Type (Hyperscale AI datacenters, Colocation datacenters, Enterprise-private AI datacenters), Coolant. AI Datacenter Liquid Cooling Market is segmented by Cooling Technology (Direct-to-chip liquid cooling, Immersion cooling, Rear-door heat exchangers), Deployment Type (Hyperscale AI datacenters, Colocation datacenters, Enterprise-private AI datacenters), Coolant. The AI Cooling Race Has a Dangerous Hidden Bottleneck. Goldman Sachs projects that 76 percent of AI servers deployed by the end of 2026 will be liquid-cooled up from just 15 percent in 2024. That forecast, widely cited in infrastructure. Many AI servers with accelerators (e., GPUs) used for training LLMs (large language models) and inference workloads, generate enough heat to necessitate liquid cooling. These servers are equipped with input and output piping and require an ecosystem of manifolds, CDUs (cooling distribution) and. This section aims to establish the fundamental market driver: the exponential growth in the power consumption of Artificial Intelligence (AI) accelerators, which presents severe thermal challenges for data center infrastructure, thereby catalyzing a shift from air cooling to liquid cooling. At the. NVIDIA's latest AI servers can run on coolant warmer than a hot tub — and that counterintuitive choice is one of the biggest efficiency leaps in data center history. It offers up to 15% better energy efficiency and reduces cooling costs compared to traditional air-cooling systems The technology also enables higher server. There is rising liquid cooling adoption in compute and switch trays for GB300, VR200, AMD (US) and ASIC AI server racks.



Article Content

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Thermal sector

As generative AI moves data centers into a new era of megawatt-level power and cooling, Taiwan's AI server supply chain

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The Cooling Revolution: Navigating the AI Server Thermal

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Liquid Cooled AI Server Market Size | Industry Report 2035

The Liquid Cooled AI Server Market was valued at USD 608 Million in 2025 and is projected to grow to USD 12.21 Billion by 2035, registering a CAGR of 35% from 2025 to 2035.

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AI Datacenter Liquid Cooling Market : Global Industry Analysis and ...

The AI datacenter liquid cooling market includes thermal management systems designed for AI-focused datacenter

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Hotter Than a Hot Tub: The 45°C Breakthrough to Cool AI's Biggest ...

This liquid cooling methodology is outlined in the NVIDIA DSX AI factory reference design, a guide that outlines best

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Global Liquid Cooled AI Server Market Size, Growth Analysis

Global Liquid Cooled AI Server Market Size By Type of Cooling System (Indirect Liquid Cooling, Direct Liquid

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That single problem has turned the AI data center liquid cooling market into one of the fastest-growing corners of the infrastructure industry, pulling in hyperscalers, colocation providers ...

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AI Boom Is Driving the Data Center Liquid Cooling Market ...

As a result, liquid cooling is emerging as a critical solution for next-generation data centers. According to recent industry analysis, the data center liquid cooling market was valued at

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Why liquid cooling will dominate AI data centres in 2026

Liquid cooling is essential for AI-driven data centres, efficiently managing the extreme heat

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Data Center Liquid Cooling for AI Workloads (2026) · KAD

Liquid cooling is no longer optional—it is now a baseline requirement for modern AI data centers. By 2026, liquid

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AI march heats liquid cooling demand

In China, the liquid cooling server market is expected to grow at a compound annual rate of 46.8 percent between 2024

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AI Server Market Size, Share & Trends | Industry Report 2035

The Liquid Cooled AI Server Market size is expected to reach USD 190 billion in 2025 registering a CAGR of 14.0. This Liquid

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The AI Cooling Race Has a Dangerous Hidden Bottleneck

Goldman Sachs projects that 76 percent of AI servers deployed by the end of 2026 will be liquid-cooled up from just 15

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The Heat Beneath the Intelligence & the Global Race to Stay Cool

The liquid cooling market is the most visible expression of this reality. But behind it are deeper questions about how societies want to manage the environmental footprint of AI infrastructure

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AI-driven cooling technologies for high-performance data centres:

This study presents a comprehensive, system-wide review of next-generation cooling technologies, including direct

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Why Liquid Cooling For AI Data Centers Is Harder Than It Looks

Liquid cooling is essential for AI data centers—but deploying it at scale requires advanced design, smart vendors and

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Navigating Liquid Cooling Architectures for Data Centers with AI

There are six common heat rejection architectures for liquid cooling where we provide guidance on selecting the best one for your AI

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2025 Global Cloud Data Centers: Liquid Cooling Trends and Outlook ...

Growing AI server power density demands integrated and localized liquid cooling supply chains. The industry shifts

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Liquid Cooling to Scale in AI Data Centers, Penetration

TrendForce's latest research on the liquid cooling industry reveals that the rollout of NVIDIA's GB200 NVL72 rack servers in 2025 will accelerate AI

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The AI Server Cooling Industry

With the rising Thermal Design Power (TDP) of AI accelerators, 3D vapor chamber cooling

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Global Data Center Liquid Cooling Market Size, Share & Trends ...

The global data center liquid cooling market size was USD 5.50 Billion in 2025 and is expected to register a revenue CAGR of 20.5% during the forecast period. Data center liquid cooling

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Liquid Cooling Is Now Mandatory: How AI Data Centers Are Adapting

☐☐ Liquid Cooling Is Now Mandatory: How AI Data Centers Are Adapting in 2026 Air cooling can't keep up with 1,000W

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The AI Craze Is Highlighting The Cooling Crunch

Industry analyst Matt Kimball explains the impact of power-hungry AI workloads on

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