AI Fully Liquid-Cooled Server

Overview

NVIDIA's Rubin generation AI infrastructure is the first to feature a fully liquid-cooled architecture, with every chip and networking component cooled through a closed-loop liquid system that eliminates the need for fans. Hot tubs sit at about 38 to 40 degrees Celsius, warm enough that most people can only soak for about 15 minutes. NVIDIA's newest AI. That's just the average. Individual racks can go much higher. Servers used to train AI models can consume more than 80 kilowatts per rack, and Nvidia's latest GB200 chip, combined with its servers, can require densities of up to 120 kilowatts, according to data from McKinsey. [Related: What is an. Liquid cooling has become a critical enabler for modern AI data centers as facilities scale to handle high-density workloads, such as artificial intelligence (AI) and machine learning. As AI workloads drive higher heat densities, the liquid cooling market is projected to expand rapidly—with. Dell has launched a new high-density AI and supercomputing server designed to handle some of the world's most demanding scientific and enterprise workloads. That higher temperature limit is precisely what makes them more.

Article Content

Best practices for deploying liquid-cooled servers in AI data centers

To learn more about how to plan, deploy, and scale liquid cooling for AI-ready data centers, explore our liquid cooling resources

Samsung Begins Mass Production of PM1763 SSD Optimized for Next ...

9th-generation V-NAND, 4nm controller and liquid-cooling optimization support demanding AI workloads Samsung Electronics a global leader in advanced memory technology,

NVIDIA''s 113°F cooling system brings data center water use near zero

NVIDIA''s latest data center servers use 113°F liquid cooling, which cuts energy use, water consumption and reliance on traditional chillers.

Nvidia says its new data center design will fix AI''s water problem

The company announced on Monday that its newest AI servers will entirely use liquid cooling, a method that eliminates the need for air-cooling fans that rely on water.

Solidigm Develops Liquid-Cooled Enterprise SSDs for AI Deployments

Solidigm, a pioneer in enterprise data storage, unveiled at the GTC AI Conference today one of the world''s first liquid-cooled enterprise solid state drives (eSSDs)—helping remove the fans

NVIDIA has unveiled a fully liquid-cooled system that uses ''cooling ...

For its Rubin-generation AI infrastructure, it will use a closed-loop liquid cooling system to cool all major components, including chips and network equipment, without the need for fans.

ASUS AI POD with NVIDIA Vera Rubin NVL72 | Liquid

Discover ASUS AI POD powered by NVIDIA Vera Rubin NVL72: 100% liquid-cooled rack-scale infrastructure with 72 Rubin GPUs, ultra-efficient

Nvidia announces liquid cooled GB200 NVL72 system with 72

Nvidia has announced a liquid cooled server rack featuring 72 of its newly shared Blackwell GPUs. The GB200 NVL72 system also includes 36 Grace CPUs and nine NVLink switch

Best practices for deploying liquid-cooled servers in AI data centers

Discover liquid cooling best practices for AI data centers, including design, deployment, maintenance, and sustainability benefits.

Designed for AI Reasoning Performance & Efficiency

The NVIDIA GB300 NVL72 features a fully liquid-cooled, rack-scale architecture that integrates 72 NVIDIA Blackwell Ultra GPUs and 36 Arm®-based NVIDIA Grace™ CPUs into a single platform. The

ASUS Unveils Game-Changing Liquid-Cooled AI Infrastructure

As a provider of NVIDIA GB300 NVL72 and NVIDIA HGX B300 systems, the flagship ASUS offering is the ASUS AI POD built on NVIDIA Vera Rubin platform – a liquid-cooled, rack-scale

MSI Brings Liquid-Cooled ORv3 Racks, NVIDIA MGX

MSI showcased liquid-cooled ORv3 racks up to 100kW, NVIDIA MGX servers, the XpertStation WS300 DGX Station, and DC-MHS platforms at

Dell unveils new server built for world''s toughest computing tasks

The Dell PowerEdge XE8812 is a fanless, direct liquid-cooled server designed for dense AI and HPC deployments. Unlike conventional servers that rely heavily on air cooling, the system

DIGGERS — Next Generation Data Center Infrastructure

DIGGERS develops fully integrated, liquid-cooled data center systems. Hermetically sealed, energy-efficient, PUE < 1.05. Direct-to-Chip cooling for AI workloads.

Liquid and Immersion Cooling Options for Data Centers

Data center operators are evaluating liquid cooling options, as processing-intensive computing applications grow. The market for liquid cooling is slated to reach $3 billion USD by 2026, as

Supermicro''s 100% Liquid-Cooled NVIDIA Vera CPU Rack: Built for

Supermicro is introducing its 100% direct liquid-cooled rack solution powered by the NVIDIA Vera CPU — a fully integrated system designed to handle the emerging requirements of agentic AI and the

Unstoppable Surge in AI Infrastructure Orders: Global Computing ...

From hundreds of billions of dollars in capital expenditure by North American cloud vendors to the mass launch of domestic intelligent computing centers; from AI server production lines running

Warm Liquid AI Cooling: NVIDIA Runs AI Servers with 45°C Liquid

Warm liquid AI cooling is redefining how AI infrastructure manages heat by using high-temperature liquid instead of traditional air cooling. NVIDIA''s latest fully liquid-cooled AI servers

Navigating Liquid Cooling Architectures for Data Centers with AI

An increasing number of servers require liquid cooling systems to support AI workloads. Depending on the scale of liquid-cooled server deployments, a data center can be cooled through exsiting or

Newest AI servers can run on coolant warmer than a hot tub

The fully liquid-cooled design significantly reduces cooling energy consumption, addressing one of the largest contributors to data centre power usage. Cooling has historically accounted for up

JetCool Launches Turnkey Liquid-Cooled Server Solution to

The solution combines a fully integrated, liquid-cooled system with commissioning, deployment, and ongoing maintenance services, along with unified warranty coverage across the

Supermicro (SMCI) Joins Nvidia Vera Rubin Launch With Liquid Cooled AI ...

Super Micro Computer (NasdaqGS:SMCI) has been named a global system builder and launch partner for NVIDIA''s new Vera Rubin NVL4 AI platform. The company unveiled next

Why liquid cooling will dominate AI data centres in 2026

Liquid cooling is essential for AI-driven data centres, efficiently managing the extreme heat generated by high-density AI server racks. It offers

Liquid cooling becoming essential as AI servers proliferate

In data centers with liquid cooling, typically only 10% of racks or fewer are using it. But as AI workloads are deployed at a runaway pace, liquid cooling is becoming

2025 Liquid Cooling Industry Sector | ToneCooling

Among these, AI training server liquid cooling penetration is most prominent, surging from 15% in 2024 to 74% in 2026, potentially reaching 80%

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

NVIDIA''s newest AI servers can run their cooling liquid even hotter — up to 45 degrees Celsius, or 113 degrees Fahrenheit. That higher temperature limit is precisely what makes them more energy efficient.

Newest AI servers can run on coolant warmer than a hot tub

The closed-loop system also enables waste heat recovery for nearby commercial or residential buildings where conditions permit. To achieve a fully liquid-cooled server, NVIDIA

JetCool Launches Liquid-Cooled Dell AI Server Solution

JetCool introduces a liquid-cooled Dell PowerEdge XE7745 server, enabling high-density AI deployments with improved cooling, efficiency, and scalability.

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: https://www.dknconsulting.co.za
Email: info@dknconsulting.co.za
Phone: +31 6 2948 7351
Address: Herengracht 123, 1015 BT Amsterdam, Netherlands

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