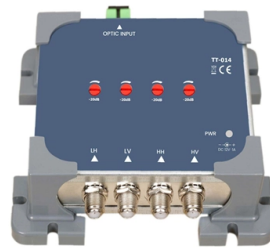


# AI Server Coolant Recommendations



## Overview

This definitive guide by a 15-year industry expert breaks down the essential coolants (EG vs. PG), the non-negotiable rules of maintenance, and the full chemical ecosystem required to keep high-performance data centers from melting down. Unlike air, liquid absorbs and transfers heat far more effectively. This allows data centers to pack more computing power into smaller spaces, prevent performance loss. Implementation requires specialized equipment such as Coolant Distribution Units (CDUs), cold plates, in-rack manifolds, and rear door heat exchangers (RDHx). This blog post breaks down the practical considerations for deploying liquid-cooled servers in AI data centers, including:

- Start with a. Liquid cooling has become a critical enabler for modern AI data centers as facilities scale to handle high-density workloads, such as AI and machine learning. All-in-one liquid coolers integrate the pump, radiator, and cold plate in a. Nvidia recently announced the launch of their new Blackwell GPUs in March 2024. However, the B200 GPUs have a projected TDP of 1000W.

## Article Content

### Data Center AI Liquid Cooling

Absent a system to monitor and adapt to the fluctuating server loads across the entire data center, it's comprehensible why managers might adopt a "set and

Taking the heat out of AI. Sustainable solutions for liquid cooled AI ...

Liquid-cooled servers will need to work alongside air-cooled IT equipment, leading to a hybrid environment. Direct-to-chip and immersion cooling provide great opportunities for increased heat

How to Get Your Data Center Ready for AI? Part One:

Overcome AI data center cooling challenges with advanced solutions, exploring liquid and immersion cooling insights for peak performance and cost

Why Liquid Cooling is the Key for AI Data Centres

Unlike traditional cooling methods, liquid immersion cooling recirculates coolant, minimising water consumption – a critical factor for eco-conscious AI operations.

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 servers or cluster. AI training and inference servers use

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

Why liquid cooling for AI data centers is harder than it looks

Liquid cooling for AI data centers is a complex architecture now needed to address the increased AI data center heat output.

The Cooling Revolution: Navigating the AI Server Thermal

Explore the future of AI server cooling. Our deep-dive report analyzes liquid cooling, immersion technology, NVIDIA's impact, and Taiwan's critical role in the global supply chain.

Cooling High Power Dissipating Artificial Intelligence (AI) Chips Using ...

High power dissipating artificial intelligence (AI) chips require significant cooling to operate at maximum performance. Current trends regarding the integration of AI, as well as the power/cooling demands of

Air vs. liquid cooling: Pick the right strategy for AI data

Explore air vs. liquid cooling for AI data centers. Learn how hybrid cooling strategies support high-density racks and optimize energy efficiency.

### The Rise of AI Drives a Ninefold Surge in Liquid Cooling

These existing water systems are often the starting point for upgrading older data centers to accommodate more advanced liquid cooling technologies.

### Liquid cooling in AI data centers: The Complete Guide

Learn about liquid cooling in AI data centers. Our complete guide covers how this essential technology boosts performance and cuts costs.

### Coolant Distribution for AI Data Centers

Boyd's coolant distribution units (CDUs) for AI servers help data centers balance high-density cooling with energy efficiency. By delivering consistent liquid cooling performance, our CDUs extend

### How to Choose a Liquid Cooling Solution for AI Serv | ToneCooling

When evaluating liquid cooling AI servers options, two primary approaches dominate the market: all-in-one (AIO) liquid coolers and custom cold plates. Each serves different thermal

### Liquid Cooling Solutions for AI Servers

As AI servers continue to push the boundaries of computational power, generating massive amounts of heat in the process, liquid cooling has

### Liquid cooling: a cool approach for AI | HPE

That's where liquid cooling comes in. Staying cool in the age of AI Compared to traditional air-cooling that uses fans, with liquid cooling –and

### Liquid cooling becoming essential as AI servers proliferate

High-density computing workloads like AI training and inference run too hot for traditional air cooling. Companies are increasingly adopting liquid cooling

### Liquid cooling in AI data centers: 5 things to know

Google, Microsoft, Meta, Amazon and Alibaba are all investing heavily in liquid cooling technologies to support AI services in their data centers.

### Where Do AI Data Center & Server Cooling Go From

Server performance is sagging under the weight of AI's massive power needs. How did data centers get here today? And what new cooling

### AI and liquid cooling: the most frequently asked

Data centers have always relied on air-cooled servers for computing power, but the acceleration of AI deployments is now causing a trend toward

### AI Server Cooling: The Evolution of Modern Data Center Design

Discover how AI workloads are forcing a shift in data center cooling design. Explore liquid cooling, direct-to-chip, and immersion cooling systems for 2026.

### AI Data Center Coolants: Glycol & DI Water Thermal Guide

This guide covers the unseen chemistry of ai - the definitive guide to data center coolants & chemicals. It provides technical information, practical

### Liquid cooling best practices for AI data centers

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

### The role of liquid cooling in AI and digital infrastructure

As AI and digital services drive up data center power demands, traditional air cooling is no longer enough. This article explores how liquid cooling technologies, like immersion and direct-to-chip, are

### Cooling High Power Dissipating Artificial Intelligence (AI)

Current trends regarding the integration of AI, as well as the power/cooling demands of high-performing server systems pose an immense

### Liquid Cooling For AI | Advanced Thermal Solutions For AI Infrastructure

Maximize performance with liquid cooling for AI Infrastructures designed for HPC environments. Our solutions reduce thermal throttling and cut energy costs.

### AI, Liquid Cooling And The Data Center Of The Future

Challenges exist to scaling AI, and among the most significant are those involving the data center infrastructure necessary for supporting these

### Best liquid coolers for CPUs in 2025

Our collection of the best liquid coolers reflects the ever-evolving market, with fresh options updated overtime to include new coolers.

## Contact Us

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