DeepCoolAI Launches Industry-First Modular Hybrid Load Bank for AI Factories designed for NVIDIA GB200 NVL72 Server

"Setting a New Standard in AI Factories Cooling with Game-Changing Hybrid Load Bank Technology" (Patent Pending)

FREMONT, CA, UNITED STATES, May 21, 2025 /EINPresswire.com/ -- DeepCoolAI, a leader in advanced thermal and power management solutions for next-generation AI Factories, proudly announces the release of its groundbreaking Hybrid Load Bank from Aqua Series —the industry's first integrated liquid and air-cooled rack-mounted load system designed specifically for high-density AI and HPC environments.

As AI-driven workloads continue to redefine AI Factories, DeepCoolAI is answering the call with an innovative solution that simulates real-world power and cooling conditions—enabling precise system validation, stress testing, and commissioning of both liquid- and air-cooled environments from a single intelligent platform.

Key Innovations of the Aqua Series – Hybrid load bank rack

- Built to Support NVIDIA GB200 NVL72 Rack Requirements

Engineered to simulate the combined thermal load of NVIDIA GB200 NVL72 server racks, with a minimum capacity of 132 kW per rack (liquid and air combined). Ideal for white space validation before deploying high-value compute infrastructure.

- Modular Fully Customizable Configuration: Supports any rack size, load profile, fluid connection, or power input requirement. Available in various form factors, including up to 60U height and 800 mm width, to match your specific deployment conditions.
- Hybrid Load Architecture – Fully Liquid-Capable

Aqua Series integrates both liquid-cooled and air-cooled load modules within a single rack, supporting programmable loads up to 176 kW standard and scalable up to 300 kW per rack. For advanced liquid cooling validation, it can be configured as a 100% liquid-cooled load bank, delivering up to 300 kW of liquid load in a single rack—ideal for next-generation AI deployments where air cooling is no longer viable

- Modular Rack-Ready, Scalable Form Factor

Built into standard 48U, 52U, or 60U enclosures (600 mm or 800 mm wide), designed for mobility and modularity—ideal for lab testing, production validation, and on-site commissioning.

- High-Precision Load Control Enables remote commissioning workflows with group control functionality for up to 200 racks in a single network cluster.
- Robust Liquid Cooling Integration

Compatible with common coolants such as deionized water, PG25, and ethylene glycol. Features include high-flow industrial-grade SS304 piping provides adjustable load steps with fine resolution: down to 1 kW for liquid-cooled and 0.1 kW for air-cooled modules. .

- Advanced Fluid Control Capabilities

Supports fluid flow rates up to 2 LPM per kW. Rack-level pressure drop can be adjusted to simulate real-world thermal load conditions.

- Integrated Safety and Protection Systems

Equipped with state-of-the-art safety features for all key functions.

- Smart Control and Remote Networking

Each rack includes a touchscreen HMI and supports local and remote control.

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“This hybrid load bank sets a new benchmark for realism and precision in commissioning high-density compute environments,” said Kris Holla, Founder and CEO of DeepCoolAI. “It’s a smart, scalable platform designed to mirror the thermal and electrical demands of next-generation AI infrastructure—helping operators validate and optimize before deployment, accelerate AI server rollout, and cut commissioning time by up to 50%.”

“With DeepCoolAI’s hybrid load bank, there’s no longer a trade-off between liquid- and air-cooled

testing," added Davood Moghaddam, CTO of DeepCoolAI. "By integrating both into a single, rack-ready chassis, we're enabling a plug-and-play testing solution that minimizes on-site complexity, accelerates deployment, and aligns perfectly with the fast-paced rollout strategies of modern AI Factories."

 Applications
 Liquid Cooling Commissioning
 AI & HPC Cluster Simulation
 Hyperscale Thermal Testing
 In-Rack CDU & Coolant Loop Validation
 Engineering & QA Labs

About DeepCoolAI
DeepCoolAI is a One Stop Factory Direct Liquid Cooling for Next Gen AI Factories
DeepCoolAI, offers a comprehensive range of solutions for liquid cooling, including CDUs, Load Banks, Refill Carts, and supporting products such as RDHx and Fanwalls. We specialize in custom-tailored CDUs, providing bespoke solutions for AI Factories ranging from 1 megawatt to 6 megawatts. Our plug-and-play Load Banks are designed to streamline the commissioning and startup of AI liquid-cooled AI Factories. Additionally, our state-of-the-art Refill Carts ensure that your liquid-cooled servers and CDUs remain operational, helping you maximize up time. Recently Sanmina and DeepCoolAI entered into strategic partnership for global manufacturing and supply chain at scale.

#DeepCoolAI #AIFactories #HybridLoadBank #LiquidCooling #AirCooling #DatacenterCooling #HighDensityComputing #NVIDIA #GB200 #AIInfrastructure #CDU #RefillCarts #NextGenCooling #Sanmina #AICluster #HPC #DatacenterInnovation

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