

DeepCoolAI Launches 700kW Aqua Series Load Bank for Liquid-Cooled AI Factories

Engineered for AI Factories and HPC Workloads, the Aqua Series Sets a New Benchmark for High-Density Liquid Cooling Validation



Fremont, California Jul 16, 2025 ([Issuewire.com](https://www.issuewire.com)) - DeepCoolAI, a pioneer in advanced cooling and power solutions for AI-driven factories, proudly introduces the **700kW Aqua Series Load Bank**—an innovative water-cooled load bank engineered to meet the demands of next-generation, high-density computing environments.

As liquid cooling becomes the standard in AI, HPC, and hyperscale data centers, traditional air-cooled load banks often fall short. The Aqua Series Load Bank offers a highly efficient, compact, and scalable solution for thermal load testing and system validation in modern liquid-cooled infrastructures.

Key Features and Benefits

- **High Power Density & Precision:** Delivers up to **700 kW at 480 VAC** with fine load resolution down to **5 kW**, enabling precise system validation across a wide range of load profiles.

- **Global Power Compatibility:** Supports universal power input from **380 VAC to 480 VAC**, at both **50 and 60 Hz**, delivering full capacity across different regions. Power connections are customizable and available in **2 × 400 A max** or **3 × 250 A max** configurations via **Powerlock Quick Connect** or **Camlock**, offering maximum flexibility for global deployments.
- **Stable Thermal Performance & Extended Service Life:** Engineered to maintain precise coolant temperatures, enhancing thermal stability, minimizing wear, and prolonging operational lifespan.
- **Compact Footprint:** Optimized for space-constrained indoor environments, making it ideal for data centers where traditional load banks are not feasible.
- **Industrial-Grade Durability & Compliance:** Constructed with **SUS304 stainless steel** piping and tanks. All wetted surfaces use **OCP-compliant materials** to ensure chemical resistance and long-term durability.
- **Intelligent Control Interface:** Integrated **PLC-based 10-inch touchscreen HMI**, supporting **MODBUS RTU** via **RS-485** and **Ethernet** for automation and remote monitoring. Offers optional **wireless control** (e.g., Raspberry Pi) and **Redfish** Control options are fully customizable and can be powered internally or via external connection with switch control.
- **Scalable Remote Networking:** Supports centralized management of multiple units, scalable to systems exceeding **12 MW** in total capacity.
- **Fast, Site-Ready Deployment:** Shipped with all required fluid and power accessories. Optional on-site support and technician services are available for rapid commissioning.
- **Built-In Safety Features:** Equipped with sensors for **over-temperature, over-pressure, low coolant level**, and **loss-of-flow**, ensuring fail-safe operation and protecting valuable assets.
- **Mobile and Flexible:** Features **caster wheels, ergonomic handles**, and **forklift pockets** for easy relocation and positioning on-site.
- **Broad Fluid Compatibility & Precision Fluid Control:** Supports various coolants, including **deionized water, PG25**, and other industry-standard fluids. Uses **sanitary hygiene flange connectors** for inlet/outlet and offers **manual or automatic balancing valves** at the outlet for fluid flow and pressure control.
- **Expandable Heating Capacity:** Upgradeable up to **1 MW** without sacrificing portability or durability, ensuring adaptability to evolving test requirements.

“AI workloads are driving unprecedented demands on data center infrastructure—from thermal density to system uptime and validation efficiency,” said Kris Holla, Founder and CEO of DeepCoolAI. “Our Aqua Series Load Bank sets a new benchmark for precision testing in liquid-cooled environments, integrating high-performance thermal loads, intelligent control, and a compact footprint into one scalable, future-ready solution.”

The Aqua Series Load Bank is more than a product—it’s a critical commissioning and reliability assurance tool, with customizable configurations, Group Control and networking feature, and compatibility with major coolant delivery standards. The Aqua Series enables data center teams to validate cooling capacity, optimize system tuning, and ensure uptime from day one said Mr Holla”

Now available for deployment, the Aqua Series Load Bank can be tailored to meet specific site requirements, including rack integration, CDU pairing, and modular scaling up to megawatt-class testing.

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 data centers 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 data centers. Additionally, our state-of-the-art Refill Carts ensure that your liquid-cooled servers and CDUs remain operational, helping you maximize uptime. Recently, Sanmina and DeepCoolAI entered into a strategic partnership for global manufacturing and supply chain at scale.

Visit www.deepcoolai.com for more information and sales@deepcoolai.com

Media Contact: media@deepcoolai.com

Media Contact

DeepCoolAI

*****@deepcoolai.com

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