DeepCoolAI Unveils Industry First 1.4MW Aqua Series LC Load Bank Redefining Gigawatt-Class AI Factories Commissioning

Purpose-Built for accelerating Gigawatt-Scale Data Centers, Matching the Most Popular CDU & Chiller Sizes to Cut Commissioning Time, Labor, and Cost

FREMONT, CA, UNITED STATES, August 14, 2025 /EINPresswire.com/ -- DeepCoolAI, a global leader in advanced thermal and power management solutions for next-generation AI factories, today announced the launch of the AquaMega (DCAI-LBK-1400L), the world's first 1.4MW pure resistive, liquid-cooled load bank engineered specifically to match the most widely deployed CDU and chiller sizes in hyperscale AI, HPC, and gigawatt-class data centers.

As AI factories scale into the gigawatt era, commissioning delays can cost operators millions in lost opportunity and competitive advantage. The Aqua Series 1.4MW Load Bank is purpose-built to accelerate full-scale thermal and electrical validation in hours instead of days, cutting commissioning time by up to 50%, reducing labor requirements, cost and eliminating bottlenecks in bringing high-density AI workloads online.

The AquaMega series load bank offers exceptional measurement precision, and comprehensive safety systems in a compact, mobile form factor.

Key Features & Advantages
• Gigawatt-Class Capacity & Precision – Delivers up to 1.4MW with granular load steps from 5 kW to 100 kW, enabling fine-tuned, repeatable test profiles.
• Exact CDU & Chiller Match – Perfectly aligned with 1.2–1.4MW cooling system capacities, ensuring seamless integration and realistic validation.
• Advanced Liquid-Cooled Design – Supports deionized water, PG25, and ethylene glycol, with

OCP-compliant SUS304 stainless steel wetted parts for corrosion resistance and high-pressure durability.

• Rapid Commissioning – PLC-controlled 10-inch HMI with real-time monitoring of voltage, current, flow, temperatures, and pressure. Supports MODBUS, Ethernet, Wi-Fi, and optional SNMP/MQTT/Redfish.

• Operational Flexibility – Modular, scalable design supporting multi-unit group control beyond 24MW total network capacity.

• Safety First – Built-in overtemperature, overpressure, leakage detection, and dual-PIN authentication, with IP44 ingress protection for harsh data center environments.

• Mobile & Site-Ready – Compact footprint with casters, forklift pockets, and quick-connect sanitary flanges for fast setup and relocation.

• Global Power Compatibility – Accepts universal power input from 380 VAC to 480 VAC, 50/60 Hz, with power factor 1—delivering full rated capacity across diverse regions and site standards.

Industry Leaders Speak Out

"A 1.4MW liquid cooled load bank that natively matches CDU and chiller capacities is the kind of practical innovation that accelerates AI factory readiness. It brings rigor, repeatability, and integrates commissioning at scale," said Christian Belady, DeepCoolAI advisor and former Vice President & Distinguished Engineer who led Microsoft's global data center R&D (and originator of the PUE metric).

He added that he is excited about DeepCoolAI's relentless pursuit of innovation to speed up deployment, which positions the company as a catalyst for the future of computing. By delivering cutting-edge solutions ahead of the curve, DeepCoolAI empowers customers and operators to harness the full potential of next-generation GPUs—bringing the future into focus, and placing tomorrow's breakthroughs in their hands today.

"AI data centers are entering a new era where gigawatt-class liquid cooling and multi-megawatt racks are the norm," said Davood Moghaddam, CTO of DeepCoolAI. "This platform delivers unmatched commissioning accuracy, safety, and scalability for liquid-cooled infrastructure worldwide." As part of our All Aqua Series liquid cooled load banks, it provides operators with the confidence to validate and optimize liquid-cooled infrastructure at any scale."

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
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#DeepCoolAI #AIFactories #1.4MWLoadBank #LiquidCooling #CDU #Chillers #DatacenterCommissioning #HighDensityComputing #HPC #GigawattFactory #Sanmina #NextGenCooling #DatacenterInnovation

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