

LG ELECTRONICS EARNS NVIDIA AI FACTORY VALIDATION FOR 600KW COOLANT DISTRIBUTION UNIT

*Certification validates LG's Advanced Thermal Management Technology,
Solidifies Partnership with NVIDIA, Accelerating AI Infrastructure Expansion*

News Summary

- LG Electronics has achieved NVIDIA certification for its 600kW Coolant Distribution Unit (CDU), meeting over 100 rigorous evaluation criteria for AI Factory standardization.
- The certification positions LG as an official NVIDIA partner for *AI Factory* infrastructure, serving as a trust signal that helps minimize procurement risks for global data center operators.
- LG Electronics offers a comprehensive Chip-to-Chiller portfolio for AI data centers, spanning from chillers, Coolant Distribution Units (CDUs) and cold plates.

SEOUL, July 27, 2026 — LG Electronics has secured [official NVIDIA certification](#) for its 600kW Coolant Distribution Unit (CDU). This milestone validates the reliability and efficiency of LG's liquid cooling solutions and thermal management technology with NVIDIA's AI infrastructure standards, supporting the company's continued expansion in the AI data center cooling market.

Reliable Partner for Global Hyperscalers

As one of the select few companies globally to pass NVIDIA's technical verification process, LG successfully validated its 600kW CDU against more than 100 technical evaluation criteria. These metrics are designed to standardize cooling performance, reliability and failover capabilities for high-density AI Factories.

The certification marks a strategic milestone for LG, strengthening the company's position as an officially verified NVIDIA partner for AI Factory infrastructure. For global hyperscalers and data center operators, this designation provides greater confidence in supplier selection by reducing procurement risks and accelerating qualification for large-scale AI infrastructure deployments.

Chip-to-Chiller Cooling Solution Provider

LG's NVIDIA-certified 600kW CDU is engineered to manage the thermal demands of high-heat AI GPUs. By implementing a Direct-to-Chip (DTC) liquid cooling solution that delivers coolant directly to heat-generating components such as GPUs and CPUs, the unit creates a highly efficient "hybrid cooling" system that operates in synergy with existing air-cooling infrastructure.

The unit is designed to achieve a temperature control precision of $\pm 0.25^{\circ}\text{C}^*$, helping enhance system thermal stability and support reliable AI server operation. It also integrates virtual sensor technology for real-time monitoring and leak detection capabilities. Paired with LG's Data Center Cooling Control Manager (DCCM), the solution enables predictive control and centralized monitoring, while supporting seamless integration with data center management systems through standard communication protocols.

To ensure comprehensive reliability, LG evaluates these solutions at its dedicated Chip-to-Chiller validation site in Pyeongtaek, South Korea. There, the company tests system-wide transient responses, temperature changes and low-load stability across the entire cooling chain—from the AI chip load and cold plates to the CDU and chiller. By meeting NVIDIA's strict failover requirements, the CDU is engineered to maintain operational stability even under highly demanding conditions.

LG aims to further solidify its position as a trusted AI data center infrastructure partner with a comprehensive "Chip-to-Chiller" portfolio, offering end-to-end thermal management solutions from the chip level to the cooling plant. The company's end-to-end offering includes chillers that produce chilled water, CDUs that distribute coolant and cold plates that deliver cooling directly to AI chips—the core components of liquid cooling systems for AI data centers.

Expanding AI Infrastructure Capabilities

This certification serves as the starting point for LG's broader AI infrastructure business expansion. Moving forward, LG plans to sequentially secure NVIDIA certifications for entire large-capacity CDU lineups, including its 1MW, 2.5MW and 4MW models.

Backed by 60 years of engineering expertise in the HVAC sector, LG's CDUs are designed for high-density AI data center environments, offering precise temperature control, advanced control capabilities and high reliability. LG also strengthens its competitiveness by producing key components in-house, including inverter systems and magnetic bearing compressors—core technologies applied across its chiller portfolio.

LG has recently secured major global data center cooling projects, including hyperscaler facilities in North America and the Sinar Mas data center, SM+ Data Center's flagship AI-ready facility in Jakarta, Indonesia. By leveraging its core technological capabilities, LG aims to expand global orders and strategic partnerships in the next-generation AI data center market.

"As AI data centers continue to scale, the need for highly reliable liquid cooling solutions has never been greater," said James Lee, president of the LG ES Company. "Leveraging our advanced cooling technologies together with the LG Group's integrated infrastructure capabilities, we are expanding our AI infrastructure business with end-to-end solutions that help enable Physical AI, where AI creates value in real-world environments."

** Performance results, including temperature control precision and component lifespan, may vary depending on actual operating environments, server loads and conditions.*

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About the LG Electronics Eco Solution Company

The LG Eco Solution Company (ES) offers advanced air conditioning solutions, including chillers, for diverse sectors and climates. Committed to exceptional HVAC performance, the ES Company aims to enhance indoor comfort and well-being with innovative air care products. Leveraging deep industry expertise, it offers digitalized HVAC solutions designed for better life. As a trusted partner, the company integrates cutting-edge technology into daily operations while offering ongoing support. For more information, please visit www.LG.com/global/business/hvac.

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About LG Air Conditioning Technologies USA

LG Electronics USA's Air Conditioning Technologies business is based in Alpharetta, Ga. LG is a leading player in the air conditioning market, manufacturing both commercial and residential air conditioners and building management solutions. From consumer and individual units to industrial and specialized air conditioning systems, LG provides a wide range of products for heating, ventilating, air conditioning, water heating, and building controls. Eleven-time ENERGY STAR® Partner of the Year, LG Electronics USA (based in Englewood Cliffs, N.J.), is the North American subsidiary of LG Electronics Inc., a smart life solutions company with annual revenues of more than \$60 billion. Learn more about LG's HVAC offerings at lghvac.com or follow on social: [LinkedIn](#), [YouTube](#), [X](#) (Twitter), [Facebook](#) and [Instagram](#).

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