

Schneider Electric Announces New Reference Designs, Featuring Integrated Power Management and Liquid Cooling Controls, Supporting NVIDIA Mission Control and NVIDIA GB300 NVL72

- Industry-first AI infrastructure reference design with controls provides a seamless OT/IT interoperability with NVIDIA Mission Control and enterprise applications
- New NVIDIA GB300 NVL72 power and cooling reference design, co-engineered with NVIDIA supports deployment of next-generation Blackwell GPUs
- Both new reference designs enable data center operators to accelerate the deployment of AI infrastructure for AI factories, anywhere

Rueil-Malmaison, France, September 18, 2025 – [Schneider Electric](#), the leader in the digital transformation of energy management and automation, today announced new reference designs developed with NVIDIA that significantly accelerate time to deployment and aid operators as they adopt AI-ready infrastructure solutions.

The [first reference design](#) delivers the industry's first and only critical framework for integrated power management and liquid cooling control systems, including Motivair by Schneider Electric liquid cooling technologies, and enables seamless management of complex AI infrastructure components. It includes interoperability with [NVIDIA Mission Control](#) — NVIDIA's AI factory operations and orchestration software, including cluster and workload management features. The control systems reference design can also be utilized with Schneider Electric's data center reference designs for [NVIDIA](#) Grace Blackwell systems, enabling operators to keep pace with the latest advancements in accelerated computing, with seamless control of their power and liquid cooling systems.

The [second reference design](#) focuses on the deployment of AI infrastructure for AI factories of up to 142 kW per rack, specifically [NVIDIA GB300 NVL72 racks](#), in a single data hall. Created to provide a framework for the next-generation [NVIDIA Blackwell Ultra](#) architecture, the reference design includes information on four technical areas: facility power, facility cooling, IT space and lifecycle software. The design is available under configurations for both the [American National Standards Institute](#) (ANSI) and the [International Electrotechnical Commission](#) (IEC) standards.

The first controls reference design can also be utilized with Schneider Electric's data center reference designs for [NVIDIA Grace Blackwell](#) systems — enabling operators to keep pace with the latest advancements in accelerated computing, while having seamless control of their power and liquid cooling systems.

Engineered to Move at Pace

As AI advances, today's data center operators rely on reference design frameworks to overcome the speed and deployment challenges of high-density, GPU-accelerated AI clusters. By providing validated, proven, and documented data center physical infrastructure designs, Schneider Electric enables operators globally to design and incorporate next-generation power and liquid cooling controls

infrastructure before the newest AI infrastructure solutions even arrive, while optimizing for cost, efficiency, and reliability. Schneider Electric's fully engineered reference designs are laying the foundation for the latest AI factories, empowering data center operators to not only meet the moment but to be ready before it even happens.

"Schneider Electric is streamlining the process of designing, deploying, and operating advanced, AI infrastructure with its new reference designs," said Jim Simonelli, Senior Vice President and Chief Technology Officer at Schneider Electric. "Our latest reference designs, featuring integrated power management and liquid cooling controls, are future-ready, scalable, and co-engineered with NVIDIA for real-world applications — enabling data center operators to keep pace with surging demand for AI."

"We are entering a new era of accelerated computing, where integrated intelligence across power, cooling and operations will redefine data center architectures," said Scott Wallace, Director of Data Center Engineering at NVIDIA. "With its latest controls reference design, Schneider Electric connects critical infrastructure data with NVIDIA Mission Control, delivering a rigorously validated blueprint that enables AI factory digital twins and empowers operators to optimize advanced accelerated computing infrastructure."

'Plug-And-Play' End-To-End Controls System

The groundbreaking controls reference design connects edge devices and facility controls for energy management and liquid cooling across NVIDIA GB300 NVL72 and NVIDIA GB200 NVL72 deployments leveraging NVIDIA Mission Control. Using a "plug-and-play" architecture based on the MQTT protocol, it bridges operational technology (OT) infrastructure and information technology (IT) systems, allowing operators to, for the first time, harness data from every layer to optimize performance.

With a focus on seamless interoperability between building and AI infrastructure management software, the controls reference design establishes redundant systems for power and cooling, and introduces new guidance for measuring AI rack power profiles. Ultimately, it ensures the highest standards of uptime, reliability and peak performance for AI deployments by enabling precise, real-time management of critical power and cooling resources.

The result is an end-to-end controls system that offers:

- A standardized format interface publishing power management and liquid cooling controls data for consumption by local applications and upstream data consumers and tools, including AI infrastructure management software, digital twins, AI/ML and other enterprise systems.
- The controls architecture is designed to manage redundancy across cooling and power distribution infrastructure, including coolant distribution units (CDUs) and remote power panels (RPPs), ensuring resiliency in both white and grey space environments.
- New guidance for measuring AI rack power profiles, with a focus on rack peak power and power quality monitoring.

NVIDIA GB300 NVL72 Reference Design for High-Density AI Clusters

Schneider Electric's reference design for NVIDIA GB300 NVL72 supports the deployment of NVIDIA GB300 NVL72- based clusters with a maximum rack density of 142kW, such as NVIDIA DGX SuperPOD with DGX GB300 systems. The data hall is purpose-built and optimized to host three NVIDIA GB300 NVL72- based clusters powered by up to 1,152 GPUs using liquid-to-liquid CDUs and high temperature chillers.

The reference design also includes Schneider Electric's industry-leading ETAP and EcoStruxure IT Design CFD models, allowing users to leverage digital twins to simulate specific power and cooling scenarios to optimize designs on unique applications. It builds upon a previous blueprint for the [NVIDIA GB200 NVL72](#) as Schneider Electric continues to collaborate with NVIDIA to provide fully engineered, tested models in anticipation of the new NVIDIA GB300 NVL72 platform.

The reference designs announced today continue Schneider Electric's long-established collaboration with NVIDIA to meet the data center industry's most pressing AI demands. In addition to these new reference designs, Schneider Electric has developed nine AI reference designs for various scenarios including [prefabricated modules, retrofit data centers, and AI infrastructure purpose built for NVIDIA GB200 NVL72 and NVIDIA GB300 NVL72-based clusters](#).

Schneider Electric also applies comprehensive, real-world engineering on each of its reference designs - demonstrating a continuous commitment to developing the industry's most advanced, energy efficient and resilient, high performance data center architectures. For more information about its reference designs co-engineered with NVIDIA, [visit the website](#).

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Related resources:

- [AI Reference Designs to Enable Adoption: A Collaboration Between Schneider Electric and NVIDIA | Schneider Electric](#)
- [Schneider Electric Announces New Solutions to Address the Energy and Sustainability Challenges Spurred by AI](#)

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Our mission is to be the trusted partner in **Sustainability and Efficiency**.

We are a **global industrial technology leader** bringing world-leading expertise in electrification, automation and digitalization to smart **industries**, resilient **infrastructure**, future-proof **data centers**, intelligent **buildings**, and intuitive **homes**. Anchored by our deep domain expertise, we provide integrated end-to-end lifecycle AI enabled Industrial IoT solutions with connected products, automation, software and services, delivering digital twins to enable profitable growth **for our customers**.

We are a **people company** with an ecosystem of 160,000 colleagues and more than a million partners operating in over 100 countries to ensure proximity to our customers and stakeholders.

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