



Data Center Rack 120kW System Integration





Overview

What's new in power rack design?

Newer designs will opt for a closed-loop, zero-water evaporation design. Microsoft, Meta, and Google are working with OCP partners to design a new power rack side pod that the companies say will enable IT racks to reach densities of up to 1MW per rack. Announced last year, the design is known as Project Diablo.

What is a rack configuration tool?

Celestica's Rack Configurator is a virtual tool that enables you to visualize and build unique rack-level solutions to suit your business requirements. Easily configure your data center rack using our robust portfolio of networking, storage and compute Hardware Platform Solutions.

How does a NVLink rack work?

The rack is designed to blind-mate the power via the bus bar, as well as the liquid cooling nozzles and the NVLink connections for each component. Each needs to allow for a bit of movement to ensure the blind mating works properly. NVIDIA said that using the copper-cabled NVLink in the rear saves something like 20kW of power in a rack like this.

What is a typical rack configuration?

A typical rack configuration might encompass 96 cores, 8 network connections, and generate temperatures exceeding 60°C continuously. Our Dell engineers are expertly trained to identify and address potential issues before they arise, ensuring a seamless integration process.



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[Rack Integration Services](#)

Dell Technologies' Rack Integration Services addresses business challenges and offers solutions tailored for organizations aiming to enhance their IT capabilities without the complexities ...

[Press Center , LITEON](#)

LITEON's liquid cooling integration solutions are specifically designed for NVIDIA MGX architecture, paired with a high-load cabinet ...



[One rack. 120kW of compute. Taking a closer ...](#)

GTC Nvidia revealed its most powerful DGX server to date on Monday. The 120kW rack scale system uses NVLink to stitch together 72 ...

[Rack Integration Services](#)

Celestica's Rack Integration Services supports you in building the data center architecture of today while preparing you for the evolving requirements of the future.



[Liquid-cooled rack solutions to address power, heat, and ...](#)

Liquid-cooled rack solutions to address power, heat, and scale challenges in the AI era Flex OCP ORv3-inspired liquid-cooled systems are designed to support the most demanding artificial ...



[Data Center Rack Power Costs: A Condensed ...](#)

Analyze the rising Data Center Rack Power Costs driven by AI. This article breaks down consumption, PUE's role, and provides cost ...



[How Meta achieves 120kW a rack in 20kW air ...](#)

Meta has detailed how it can introduce higher-density liquid-cooled GPUs into air-cooled data centers designed for much lower rack ...





Rack Integration

Rack Integration Our Rack Integration Experts Help Businesses Deploy and Manage their Data Center Hardware TSS's rack integration services streamline the manufacturing of purpose ...

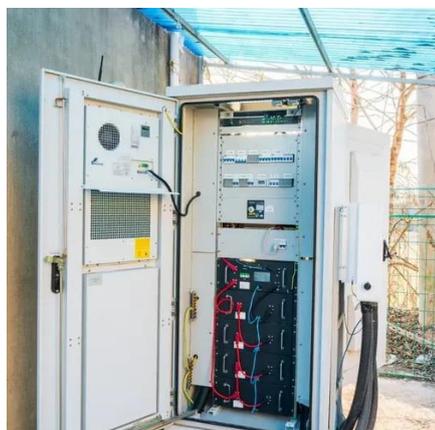


SMART SOLUTIONS REFERENCE SUMMARY

BENEFITS This reference design utilizes the SmartAisle approach to infrastructure design, an intelligent, row-based solution that simplifies infrastructure design, installation and ...

Supermicro NVIDIA GB200 NVL72 Datasheet

This end-to-end solution seamlessly integrates into rack-level configurations, significantly boosting system efficiency, mitigating thermal throttling, and simultaneously ...



How Meta achieves 120kW a rack in 20kW air-cooled data ...

Meta has detailed how it can introduce higher-density liquid-cooled GPUs into air-cooled data centers designed for much lower rack densities. As noted by semiconductor ...



[NVIDIA GTC25 Nvidia's Jensen Huang, Ian](#)

...

Blackwell racks also require power and cooling infrastructure in data center racks, but one such system can support many GB200 racks - so each

...



[LITEON Showcases Solutions Supporting Next ...](#)

"LITEON provides comprehensive integrated power management and liquid cooling solutions that not only enhance data ...

[GB200 NVL72 Deployment: Managing 72 GPUs in Liquid ...](#)

The system arrives in four separate components: the compute rack weighing 1,500kg, the NVLink Switch rack at 800kg, the CDU at 400kg, and the power distribution unit at 300kg.¹¹ Standard ...



TAX FREE

1-3MWh

BESS



[LITEON Liquid Cooling Systems - Lite-On](#)

...

LITEON Technology, in response to the data center's need for high-performance AI computing, continues to invest in the development of ...



[This is the NVIDIA DGX GB200 NVL72](#)

Here is the 120kW flagship system stacked in a single rack. A huge portion of data centers can support a ...

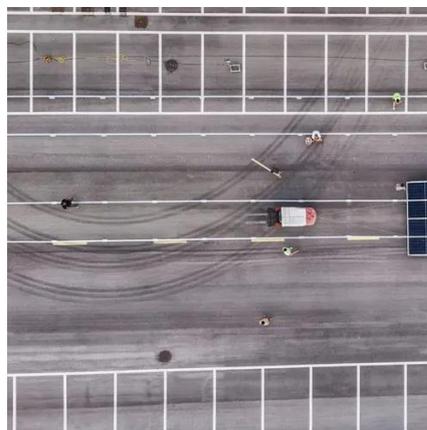


[Liquid Cooling Reference Designs for AI Data Centers](#)

Reduced risk along with future-proofing AI factories Why work with a supplier who understands data center Infrastructure? With cooling integral to infrastructure planning, the ...

[This is the NVIDIA DGX GB200 NVL72](#)

Here is the 120kW flagship system stacked in a single rack. A huge portion of data centers can support a maximum of 60kW racks at this point, so there will be other ...



[What Is Data Center Integration?](#)

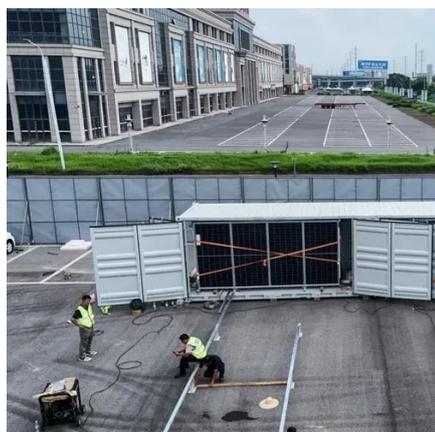
Work in data center technology? Learn how data center integration companies play a crucial role in streamlining operations and ...



[Nvidia reveals liquid cooled GB200 NVL72](#)

...

Nvidia has announced a liquid cooled server rack featuring 72 of its newly shared Blackwell GPUs. The GB200 NVL72 system also ...

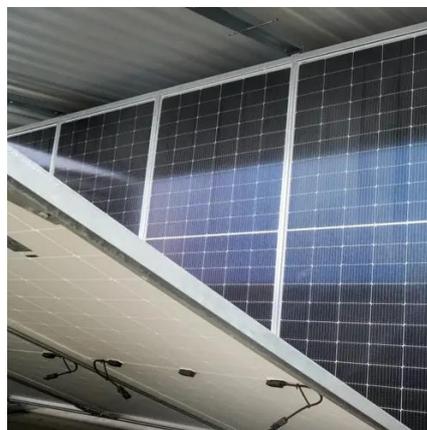


[High-Density Racks: 100kW+ Designs for AI Data Center](#)

High-Density Racks: 100kW+ Designs for AI Data Center Infrastructure Average AI rack costing \$3.9M in 2025 vs \$500K traditional--7x increase. GB200NVL72 racks reaching 132kW; ...

[Rack Integration Services](#)

Celestica's Rack Integration Services supports you in building the data center architecture of today while preparing you for the evolving requirements of ...



[Future-Proofing Data Centers: Preparing for 2MW+ AI Racks](#)

NVIDIA's GB200 NVL72 rack consuming 2.4MW of power, IBM's quantum-classical hybrid systems requiring millikelvin cooling, and Microsoft's plans for underwater data centers ...



[NVIDIA GTC25 Nvidia's Jensen Huang, Ian Buck, and Charlie ...](#)

Blackwell racks also require power and cooling infrastructure in data center racks, but one such system can support many GB200 racks - so each 120kW rack requires only one and a bit ...





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