

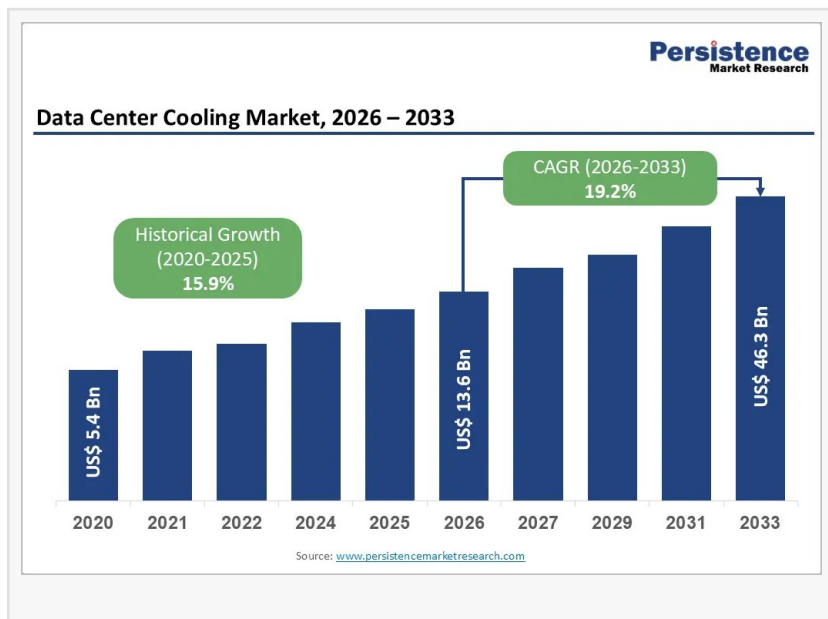
Data Center Cooling Market to Reach US\$46.3 Bn by 2033, Growing from US\$13.6 Bn in 2026 at 19.2% CAGR

The data center cooling market is set to grow from US\$13.6 Bn in 2026 to US\$46.3 Bn by 2033, at a CAGR of 19.2%, driven by rising data center demand

BRENTFORD, ENGLAND, UNITED KINGDOM, May 11, 2026 /EINPresswire.com/ -- The global [data center cooling market](#) is experiencing rapid expansion as the growing adoption of artificial intelligence (AI), machine learning, cloud computing, and high-performance computing (HPC) workloads continues to intensify

thermal management requirements in modern data centers. The market is projected to rise from US\$13.6 Bn in 2026 to US\$46.3 Bn by 2033, registering a strong CAGR of 19.2% during the forecast period. Increasing rack densities, escalating power consumption, and the rising need for uninterrupted uptime are compelling operators to transition from traditional air-based cooling systems to advanced liquid cooling and hybrid thermal management technologies. Data center operators worldwide are focusing on energy-efficient cooling solutions to reduce Power Usage Effectiveness (PUE), minimize operational costs, and meet strict environmental sustainability targets.

The market is driven by rising regulatory pressure and net-zero commitments to reduce carbon emissions from digital infrastructure. Traditional cooling systems are becoming inadequate for AI workloads with rack densities exceeding 20–100 kW, boosting demand for advanced solutions like liquid cooling, immersion cooling, and AI-based thermal optimization. Solutions lead the market with over 74% share in 2026 due to strong demand for integrated cooling systems. North America dominates due to hyperscale cloud operators and rapid AI adoption, while Asia Pacific is the fastest-growing region driven by digital transformation and expanding data center capacity.



Market Segmentation

The data center cooling market is segmented by component, technology, data center size, end user, and geography. By component, it includes solutions and services, where solutions dominate due to rising demand for integrated cooling systems such as CRAC/CRAH units, liquid cooling loops, containment systems, and AI-based monitoring tools. Services are growing quickly, driven by predictive maintenance, optimization, and retrofitting needs.

Based on technology, the market is divided into air cooling and liquid cooling. Air cooling leads due to its low cost and easy deployment, while liquid cooling is expanding rapidly because of its higher efficiency and ability to handle AI and HPC-driven heat loads through direct-to-chip and immersion systems.

By data center size, large data centers hold the major share due to hyperscale expansion and high IT loads, while small and medium data centers are growing steadily with edge computing and modular infrastructure adoption.

By end user, hyperscale data centers dominate the market, followed by strong growth in cloud providers as enterprises accelerate migration to cloud-based and SaaS environments.

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Regional Insights

North America dominates the data center cooling market due to the strong presence of hyperscale operators like Amazon Web Services, Microsoft, and Google. High data center electricity consumption in the U.S., especially in hubs like Northern Virginia, is driving demand for advanced cooling technologies such as liquid cooling and AI-optimized systems. Government support for energy efficiency and sustainability is further strengthening regional growth.

Asia Pacific is the fastest-growing region, supported by rapid digitalization, cloud adoption, and increasing AI investments. Countries like China, India, Singapore, Japan, and South Korea are expanding data center capacity, boosting demand for energy-efficient and liquid cooling solutions. Rising edge computing infrastructure and stricter environmental constraints are also accelerating innovation in hybrid cooling technologies.

Europe holds a significant share, driven by strict sustainability regulations and carbon reduction goals. The EU Energy Efficiency Directive and Green Deal are pushing adoption of low-PUE and renewable-integrated cooling systems. Scandinavian countries lead in sustainable cooling due to favorable climates and district heating systems, while Germany, the UK, France, and Spain

continue to invest in advanced cooling infrastructure for hyperscale and enterprise data centers.

Market Drivers

The data center cooling market is primarily driven by the rapid rise of AI, machine learning, and high-performance computing, which are significantly increasing rack power densities beyond the capability of traditional air cooling systems. Expansion of cloud computing, IoT, and digital transformation initiatives is further accelerating data center growth and boosting demand for energy-efficient cooling solutions. Additionally, strict regulations on energy efficiency and carbon emissions are pushing operators toward advanced thermal management technologies that reduce power usage and operational costs.

Market Restraints

High capital expenditure remains a major challenge for the data center cooling market, especially for liquid cooling systems that require specialized infrastructure, coolant management, and facility redesign. Retrofitting existing data centers is complex and costly, limiting adoption among smaller operators. Concerns around coolant leakage, maintenance complexity, compatibility issues, and lack of skilled workforce also slow down large-scale deployment of advanced cooling technologies.

Market Opportunities

The market is witnessing strong opportunities from AI-driven cooling systems and immersion cooling technologies that enhance energy efficiency and thermal performance. Smart coolant distribution units with predictive analytics are improving operational efficiency while reducing energy consumption. Growing adoption of immersion cooling in edge and AI-heavy workloads, along with heat recovery systems for industrial and district energy use, is transforming cooling infrastructure into a sustainable, revenue-generating asset.

Company Insights

- Schneider Electric
- Vertiv Group Corp.
- DAIKIN INDUSTRIES, Ltd.
- Johnson Controls
- Carrier
- STULZ GMBH
- Rittal
- CoolIT Systems
- Asetek
- LiquidStack

- Green Revolution Cooling
- DCX Liquid Cooling Systems

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Conclusion

The global data center cooling market is witnessing strong growth driven by AI, cloud computing, and rising data center densities. Increasing sustainability demands and higher rack power loads are pushing adoption of advanced solutions like liquid cooling, immersion cooling, and AI-based thermal management. Despite challenges such as high costs and operational complexity, innovation in modular cooling systems and energy-efficient technologies is creating new opportunities. North America leads the market, while Asia Pacific is the fastest-growing region, positioning the industry for steady expansion through 2033.

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