

Data Center Liquid Cooling Market by Component (Solution and Services), End User (Cloud Providers, Colocation Providers, Enterprises, and Hyperscale Data Centers), Data Center Type, Type of Cooling, Enterprise, and Region - Global Forecast to 2028

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Abstracts

The global data center liquid cooling market will rise from USD 2.6 billion in 2023 to USD 7.8 billion by 2028 at a CAGR of 24.4% from 2023 to 2028. Liquid cooling offers flexibility and scalability to meet growing computational demands as data centers grow and change. Since diverse rack configurations, server configurations, and form factors can be accommodated by liquid cooling technologies, they are appropriate for upcoming data center expansion and technological improvements.

“The services, by component segment, is projected to grow at the highest CAGR from 2023 to 2028.”

Data centers rely on service providers to quickly identify and fix problems in the case of system faults or malfunctions. Finding the source of issues, carrying out fixes or component replacements, and returning the liquid cooling system to regular operation are all part of troubleshooting services. For minimizing downtime and ensuring data center availability, quick response times and proficiency in diagnosing complicated cooling-related issues are essential.

“Small and mid-sized data center, in by data center type segment, is projected to grow at the highest CAGR from 2023 to 2028.”

Unlike conventional air-cooling systems, liquid cooling solutions frequently function with lower noise levels. The lowered noise might be a huge benefit for small and mid-sized

data centers situated in communal areas or noise-sensitive locations, like office buildings or residential neighborhoods. Small and mid-sized facilities can benefit from improved cooling efficiency, cost savings, scalability, and other features provided by liquid cooling solutions, allowing them to streamline operations and adapt to the changing needs of contemporary IT infrastructure.

“The hyperscale data center in the data center liquid cooling market is projected to grow at the highest CAGR from 2023 to 2028.”

The desire for seamless communication between areas is rising, fuelling the expansion of hyperscale data centers. Liquid cooling fits in with the increased attention being paid to environmental sustainability. Hyperscale data centers can lessen their ecological impact and support green initiatives by using less energy and cooling more effectively. In addition, waste heat can be recovered and used again due to liquid cooling, significantly improving the data center’s energy efficiency.

“IT and Telcom segment of the data center liquid cooling market is projected to grow at the highest CAGR from 2023 to 2028.”

Data centers are essential to the telecom industry for several crucial tasks, including the support of network hardware, communication servers, and data storage. To prevent overheating and guarantee consistent performance, liquid cooling systems assist with controlling the temperature of telecom infrastructure parts like routers, switches, and optical equipment. The IT and telecom industries may efficiently regulate heat, optimize energy usage, boost performance, and support the demanding computing needs of numerous applications and services by implementing data center liquid cooling technologies.

“Cold plate liquid cooling, of the data center liquid cooling market, is projected to grow at the highest CAGR from 2023 to 2028.”

To move heat away from electronic components, cold plate liquid cooling uses metal plates in close proximity to the components. Traditional cooling techniques may need help effectively dissipating heat as electrical gadgets and components become more potent and tightly packed. High-power and high-density electronic components can be effectively cooled using cold plate liquid cooling, which provides a direct and efficient heat transfer mechanism.

“Asia Pacific data center liquid cooling market is projected to grow at the highest CAGR

from 2023 to 2028.”

Asia Pacific is expected to be the fastest-growing market for data center liquid cooling market during the forecast period. The Asia Pacific region is becoming increasingly aware of the value of sustainable practices and green data centers. Compared to traditional air-cooling techniques, liquid cooling solutions are thought to be more environmentally friendly because of their capacity to increase energy efficiency and lessen environmental effects. The use of liquid cooling in the area is influenced by the region’s growing emphasis on sustainability.

Profile break-up of primary participants for the report:

By Company Type: Tier 1 – 20%, Tier 2 – 40%, and Tier 3 – 40%

By Designation: C-level Executives – 10%, Directors – 70%, and Others – 20%

By Region: Asia Pacific – 25%, North America – 45%, Europe – 20%, Middle East & Africa – 5%, and South America – 5%

The data center liquid cooling market report is dominated by players such as Rittal (Germany), Fujitsu (Japan), Vertiv Holdings Co. (US), Green Revolution Cooling Inc. (US), Summer (Spain), Midas Green Technologies (Austin), Schneider Electric (France), LiquidStack (Netherlands), Chilldyne (US), Iceotope Technologies Limited (UK), CoolIT Systems (Canada), Asperitas (Netherlands), DUG Technology (Australia), LiquidCool Solutions, Inc. (US), DCX Liquid Cooling Systems (Poland), and STULZ GMBH (Germany).

Research Coverage:

The report defines, segments, and projects the data center liquid cooling market based on component, data center type, type of cooling, end user, enterprise, and region. It provides detailed information regarding the major factors influencing the market’s growth, such as drivers, restraints, opportunities, and industry-specific challenges. It strategically profiles key data center liquid cooling solution providers and comprehensively analyzes their market shares and core competencies, as well as tracks and analyzes competitive developments, such as expansions, agreements, contracts, partnerships, acquisitions, collaborations, and divestments, undertaken by them in the market.

Reasons to Buy the Report:

The report is expected to help the market leaders/new entrants by providing them with the closest approximations of revenue numbers of the data center liquid cooling market and its segments. This report is also expected to help stakeholders obtain an improved understanding of the market's competitive landscape, gain insights to improve the position of their businesses, and make suitable go-to-market strategies. It also enables stakeholders to understand the market's pulse and provides information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of critical drivers (Increasing number of data centers and server density), restraints (High capital expenditure and maintenance), opportunities (Emergence of AI, blockchain, and other advanced technologies), and challenges (Lack of standardization) influencing the growth of the data center liquid cooling market.

Product Development/Innovation: Detailed insights on upcoming technologies, research &

development activities in the data center liquid cooling market.

Market Development: Comprehensive information about lucrative markets – the report analyses

the data center liquid cooling market across varied regions.

Market Diversification: Exhaustive information about new products & services, untapped

geographies, recent developments, and investments in the data center liquid cooling market.

Competitive Assessment: In-depth assessment of market shares, growth

strategies, and service

offerings of leading players like Rittal (Germany), Fujitsu (Japan), Vertiv Holdings Co. (US), Green Revolution Cooling Inc. (US), Submer (Spain), Midas Green Technologies (Austin), Schneider Electric (France), LiquidStack (Netherlands) among others in the data center liquid cooling market.

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