

# **Data Center Cooling System Market – Global Industry Size, Share, Trends, Opportunity, and Forecast, 2018-2028F Segmented By Cooling Strategies (Free Cooling, Air Containment and Closed Loop Cooling), By End-Use Type (Tier-1, Tier-2, Tier-3, and Tier-4), By Service (Installation/Deployment Services, Maintenance Services & Monitoring Software), By End User Industry (Oil & Gas energy, BFSI, Healthcare, Government & Defense, IT & Telecom, Others), By Region**

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## **Abstracts**

Global Data Center Cooling Systems market is predicted to develop at a rapid pace throughout the forecast period. However, the growing demand for data storage and processing has also led to increased energy consumption and the need for efficient data center cooling systems. The global data center cooling system market is a critical segment of the data center industry, responsible for maintaining the temperature and humidity levels necessary for the optimal performance of IT equipment.

A data center cooling system is a vital component of a data center facility that is responsible for maintaining ideal temperature and humidity levels in order for IT equipment to function properly. It is used to avoid overheating and guarantee that the equipment performs properly, keep the temperature and humidity levels within the prescribed range. The market is driven by the increasing demand for data centers across various industries such as IT, telecom, healthcare, and banking. The market is also driven by the increasing focus on energy efficiency, as the energy consumed by

data centers is increasing due to the growing amount of data generated by individuals and organizations.

The goal of data center cooling systems is to eliminate heat produced by IT equipment while preserving the necessary levels of humidity and temperature. In data centers, a variety of cooling technologies, including liquid- and air-based ones, are employed. Fans or air conditioners circulate air, which serves as the cooling medium in air-based cooling systems. Water or other coolants are used in liquid-based cooling systems to remove the heat produced by the IT equipment.

The effective running of a data center facility depends on its data center cooling systems. They contribute to lowering energy use, reducing downtime, and extending the lifespan of IT equipment. A well-constructed and maintained cooling system may enhance the data center's efficiency, lower expenses, and improve overall efficiency.

In summary, a data center cooling system is an essential component of a data center facility, responsible for maintaining optimal temperature and humidity levels to ensure the efficient and reliable operation of the IT equipment. There are various types of cooling systems used in data centers, including air-based and liquid-based systems, which help to reduce energy consumption, minimize downtime, and extend the life of the IT equipment.

#### Rise in demand for cutting-edge technology

Data centers are essential for businesses as they are the backbone of technology infrastructure. As businesses become more reliant on technology, the demand for data centers is increasing. This means that there is a need for more efficient data center cooling systems to keep the data centers running optimally. Data center cooling systems are used to maintain the temperature and humidity of the data center. It is essential to ensure that the data center is not too hot or too cold, as this could affect the performance of the servers. The cooling systems also protect the servers from overheating, which can result in damage or even failure of the server. The demand for cutting-edge technology is driving the data center cooling systems market. To keep up with the changing technology landscape, data centers need to be able to keep up with the latest trends in technology. This means that data centers need to be equipped with the latest cooling systems to ensure that they can cope with the demands of the latest technology.

The data center cooling systems market is also growing due to the increasing number of

data center deployments. As more businesses move to the cloud, they need to invest in more efficient cooling systems to ensure that their data centers can cope with the increasing demands of the cloud.

In addition, the data center cooling systems market is also being driven by the need for energy efficiency. Data centers use a large amount of energy, and the cooling systems need to be highly efficient to reduce energy consumption. This is why data centers are increasingly investing in the latest cooling systems that are more energy efficient. Overall, the rise in demand for cutting-edge technology is driving the data center cooling systems market. As businesses become more reliant on technology, they need to ensure that their data centers are equipped with the latest cooling systems to meet the demands of the latest technology. This is why the data center cooling systems market is experiencing significant growth.

### Proliferation of Connected Devices

In recent years, the usage of linked devices, such as smartphones, tablets, and Internet of Things (IoT) devices, has increased. While these gadgets provide convenience and efficiency, they also introduce new security risks since they may be utilized as entry points for cyber assaults. Data center cooling systems add a layer of defense at the network's edge, helping to keep cyber threats from reaching key systems.

### Adoption of cloud services and technology

Emerging technologies such as artificial intelligence (AI) and the Internet of Things are also having an influence on the global data center cooling system industry (IoT). AI may be utilized to enhance cooling system efficiency by evaluating sensor data and altering cooling output, resulting in further energy savings. IoT devices may also be utilized to remotely monitor and regulate the cooling system, enabling predictive maintenance and real-time performance tracking.

### Challenges faced in the Market

The increased investment on IT infrastructure as a result of the COVID-19 pandemic is opening up opportunities for the development of current as well as new data center facilities throughout the world. Moreover, software-based data centers contribute to market development by improving automation. A drive towards digital transformation in the middle of the pandemic exacerbated the demand for data center facilities that provide scalability, security, and flexibility. As a result, as expenditures in new data

center facilities increase, so does demand for the data center cooling systems market. The following market tends to increase the usage of data center cooling systems throughout the forecast period.

## Market Segmentation

On the basis of Cooling Strategies, the market is segmented into Free Cooling, Air Containment and Closed Loop Cooling. On the basis of End-Use Type, the market is segmented into Tier-1, Tier-2 Tier-3 and Tier-4. On the basis of Service, the market is further divided into Installation/Deployment Services and Maintenance Services & Monitoring Software. On the basis of End User Industry, the market is further split into Oil & Gas energy, BFSI, Healthcare, Government & Defense, IT & Telecom, and others.

## Company Profiles

Siemon Company, Asetek, Inc, NTT Limited, Schneider Electric SE, STULZ GmbH, Rittal GmbH & Co. KG, Cisco Systems Inc, Emerson Network Power, Fujitsu Limited, Vertiv Group Corp., are among the major players that are driving the growth of the global data center cooling system market.

## Report Scope:

In this report, the global data center cooling system market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

### Data Center Cooling System Market, By Cooling Strategies:

Free Cooling

Air Containment

Closed Loop Cooling

### Data Center Cooling System Market, By End-Use Type:

Tier-1

Tier-2

Tier-3

Tier-4

Data Center Cooling System Market, By Service:

Installation/Deployment Services

Maintenance Services & Monitoring Software

Data Center Cooling System Market, By End User Industry:

Oil & Gas Energy

BFSI

Healthcare

Government & Defense

IT & Telecom

Others

Data Center Cooling System Market, By Region:

Asia-Pacific

China

Japan

India

Australia

South Korea

## North America

United States

Canada

Mexico

## Europe

United Kingdom

Germany

France

Spain

Italy

## Middle East & Africa

Israel

Turkey

Saudi Arabia

UAE

South Africa

## South America

Brazil

Argentina

Colombia

## Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the global data center cooling system market.

## Available Customizations:

With the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

## Company Information

Detailed analysis and profiling of additional market players (up to five).

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