

# APAC Data Center Cooling Market - Industry Outlook & Forecast 2021-2026

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## Abstracts

In-depth Analysis and Data-driven Insights on the Impact of COVID-19 Included in this APAC Data Center Cooling Market Report

The APAC data center cooling market is expected to grow at a CAGR of over 4.91% during 2021–2026.

The data center market in APAC is witnessing steady growth. The continuous investments from hyperscale and cloud service providers such as AWS, Microsoft, Google, and Alibaba are surging the growth of the APAC data center cooling market share. The upcoming 5G-technology installations in various countries are increasing the demand for new facilities in technology-driven countries. Many data centers in the region have air and water-based cooling systems. A few countries, namely, China, Japan, Australia, New Zealand, and South Korea, benefit from cooler systems that support free cooling and reduce power consumption. Datacenter operators are trying new and innovative methods to ensure that cooling the facility can be done via alternate methods to bring down the PUE of the data center facility. To boost efficiency and reduce the power consumed in facilities, specifically in support infrastructure such as cooling systems, the service operators select areas that support free cooling.

The following factors are likely to contribute to the growth of the APAC data center cooling market during the forecast period:

Growing 5G & Edge Data Center Deployments

Increasing Adoption of AI & ML Workloads

## Impact Of COVID-19 On Data Center Demand

### Increasing Adoption of Cloud Services

The study considers the present scenario of the APAC data center cooling market and its market dynamics for the period 2020-2026. It covers a detailed overview of several market growth enablers, restraints, and trends. The report offers both the demand and supply aspects of the market. It profiles and examines leading companies and other prominent ones operating in the market.

### APAC DATA CENTER COOLING MARKET SEGMENTATION

The APAC data center cooling market research report includes a detailed segmentation by cooling infrastructure, cooling system, cooling technique, tier standard, geography. Datacenter operators seek efficient solutions to reduce their CAPEX and OPEX, conserve data center space, and lower power supply to cooling units. Most modern facilities are being built based on the ASHRAE data center cooling guidelines and the Uptime Institute's tier standards for redundant design. The quantity of cooler systems used is based on the facility's IT load, system capacities, cost, and future requirements. The adoption of these units depends on cost and efficiency, which is likely to play a significant role in selecting the vendors.

Modern CRAC and CRAH systems used in data centers are precision air-conditioners. The use of CRAC units is higher among facilities in APAC, and most of these facilities use air-based cooling systems. With new facilities being built to handle more than 10 MW of IT load, these facilities use multiple CRAC and CRAH units split across data halls and containment designs. Most facilities in APAC are designed with N+N CRAC or CRAH units. Data centers are now being built with flexible designs in which additional or high-power capacity units can be incorporated within days or weeks, depending on customer requirements.

In data centers, air-based cooling solutions comprise DX-based CRAC units, free solutions, air-cooled chiller-based cooling, and dry coolers. Free-cooling solutions are gaining momentum over liquid-based solutions. Datacenter operators in China, South Korea, Australia, and Japan are currently increasing free solutions and their systems. The market is witnessing high adoption of evaporative coolers that facilitate partial cooling, with indoor CRAC units being used in facilities.

Several facilities built in recent times are of Tier III standards due to an increased need for redundant components to support critical applications in data centers. In APAC, several under-developed projects fall under the Tier III category. This trend is likely to continue throughout the forecast period. Many operators are expected to move to the Tier IV category based on the growth in rack power density and critical applications.

## Segmentation by Cooling Infrastructure

- Cooling Systems

- Other Mechanical Infrastructure

## Segmentation by Cooling System

- CRAC & CRAH Units

- Chiller Units

- Cooling Towers

- Condensers & Dry Coolers

- Economizers & Evaporative Coolers

- Other Cooling Units

## Segmentation by Cooling Technique

- Air-Based Cooling Technique

- Liquid-Based Cooling Technique

  - Water-Based Cooling Technique

  - Direct-To-Chip & Liquid Immersion Cooling Technique

## Segmentation by Tier Standards

Tier I & Tier II

Tier III

Tier IV

## INSIGHTS BY GEOGRAPHY

China & Hong Kong are the major markets for data center operations in APAC. The China & Hong Kong data center cooling market is expected to reach USD 1,153.3 million by 2026. The growing number of upcoming projects is fueling the growth of the APAC data center cooling market. Alibaba announced an investment of over USD 28 billion over three years in its cloud infrastructure in China, which will boost the demand for cooling solutions. There are countries within APAC, such as India and Indonesia, with high population growth, which is creating a high demand for data storage, accelerating the development of the APAC market.

## Segmentation by Geography

APAC

China & Hong Kong

Australia & New Zealand

India

Japan

Rest Of APAC

Southeast Asia

Singapore

Indonesia

Malaysia

Thailand

Other Southeast Asian Countries

## VENDORS LANDSCAPE

In recent years, the growing consumption of electricity by data center cooling units leads to multiple innovations in the market by vendors. Initiatives such as Open Commute Projects are expected to bring several new techniques and technologies to the market, thereby intensifying competition among the vendors. Players are increasing their presence in developing countries such as in Southeast Asia, which is likely to boost revenue growth of the APAC data center cooling market.

### Key Vendors

Rittal

Schneider Electric

Stulz

Vertiv Group

### Other Prominent Vendors

3M

4ENERGY

Aermec

AIREDALE INTERNATIONAL AIR CONDITIONING

Airsys

ALFA LAVAL

Asetek

Austin Hughes Electronics

Black Box Network Services

Carrier

Citec International

ClimateWorx

Climaveneta Climate Technologies (Mitsubishi Electric)

Colt International

Condair Group

Conteg

Cooler Master Technology

COOLIT SYSTEMS

DAIKIN APPLIED (Daikin Industries)

DATA AIRE

Degree Controls (Nova Instruments)

Delta Group

ebm-papst

EcoCooling

Envicoool

FUJITSU

Fuji Electric

Green Revolution Cooling (GRC)

Huawei Technologies

Iceotope

Johnson Controls

Kelvion Holding

LiquidStack

KyotoCooling

Legrand

Lennox International

Motivair

Munters

Nortek Air Solutions

nVent

Prasa Infocom & Power Solutions (Prasa)

Quantech (Renovo Zhuhai)

Shanghai Shenglin M&E Technology

Siemens

SPX Cooling Technologies

Stellar Energy

Submer

Swegon Group

SWEP International

Systecon

Trane (Ingersoll Rand)

Upsite Technologies

Wakefield-Vette

#### KEY QUESTIONS ANSWERED:

1. What is the CAGR of the Asia Pacific Data Center Cooling Market?
2. What is the current size of the India data center cooling market?
3. Who are the key players for the APAC data center cooling market?
4. What is the COVID-19 impact on the APAC data center cooling market?
5. What are the opportunities and trends of the APAC data center cooling market?



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