

Humidity Standards for Cold Aisles in Computer Rooms



Overview

Therefore, in data centers, it is recommended to measure temperatures in aisles at various heights, as well as monitoring the top of the rack, where hot air tends to accumulate. Regarding relative humidity, the general recommendation for IT environments is in the range. ASHRAE defines four primary classes of data center equipment: A1, A2, A3 and A4. A1 class equipment, which includes most enterprise servers and storage hardware, has the strictest temperature and humidity requirements. In some cases. While this document is believed to contain correct information, neither the United States Government nor any agency thereof, nor The Regents of the University of California, nor any of their employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy. ing effectiveness, and improve overall operational performance. It involves the use of physical barriers or. Steam Humidification: Uses resistive or electrode-based systems to inject water vapor directly into the airflow. This method provides tight control and fast response but can increase energy use if not integrated efficiently with the HVAC system.



Article Content

Jul 06, 2026

Data center temperature and humidity guidelines

ASHRAE maintains a recommended list of humidity and temperature level standards for data centers. Discover which range of guidelines is best for each equipment class.

Oct 14, 2025

{Document Name}

Most of the humidity concerns of past days have been alleviated. As a result, (de)humidification is not recommended in data centers. Therefore, humidity will not be further ...

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OPERATIONAL ASPECTS OF HOT AND COLD AISLE CONTAINMENT ZONES Airflow Management: Utilize perforated tiles, grates, or directional vents to guide cold air to the server inlets and direct hot ...

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Temperature and humidity control in data centres

High humidity levels combined with various ambient pollutants have been shown to accelerate corrosion of various components within servers. Cooling is essential to remove the heat ...

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Temperature & Humidity: Data Centre & Server Rooms Standards

In summary, maintaining optimal temperature and humidity levels in data centres and server rooms is crucial for protecting IT infrastructure. ASHRAE recommends a temperature range of 18°C to 27°C ...

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ASHRAE TC9.9 Data Center Power Equipment Thermal ...

wer temperature and humidity extremes than the cold aisles or ballroom areas. A much smaller volume of cooling air is provided to these areas, compared to a cold aisle or ballroom, because the IT ...

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What is a Safe Data Center Humidity Range?

Discover what is a safe data center humidity range and how it affects equipment reliability and uptime in critical environments.

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Server Room Humidity: Learn Critical Humidity Control

Want to know how to manage the humidity levels in your server room? C&C Technology Group lists the best tools and tips.

Jul 17, 2026

Ideal temperature and humidity for computers and data centers

Therefore, in data centers, it is recommended to measure temperatures in aisles at various heights, as well as monitoring the top of the rack, where hot air tends to accumulate. Regarding relative ...

Apr 04, 2026

General guidelines for data centers

Perforated tiles should be placed exclusively in the cold aisles, aligned with the intakes of the equipment. No perforated tiles should be placed in the hot aisles, no matter how uncomfortably hot.

Contact Us

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