Cold Aisle Cabinet Specifications



Overview

Cold Aisle Containment | LegrandA highly engineered data center cabinet solution that delivers fast, built-to-order configurability, best-in-class strength.

Key Takeaways

Cold aisle cabinets are designed to optimize airflow and cooling efficiency, with aisle widths typically ranging from 1. 2 meters to 1. 8 meters and cabinet heights and widths standardized for modular containment systems.

Aisle Dimensions and Layout

Aisle Width: Standard cold aisle widths are minimum 1. 2 meters (approximately 4 feet) to allow two full floor tiles between cabinet fronts for optimal airflow. Wider aisles may be required for ceiling heights above 3.

7 meters to accommodate overhead systems like lighting and fire suppression. Aisle Length: Continuous rows of cabinets should not exceed 16 meters. If one end of the aisle is closed or lacks a personnel exit, the maximum length is limited to 6 meters for safe access and evacuation.

Cabinet Spacing: Cold aisle containment systems require uniform cabinet heights and continuous rows to ensure proper sealing and airflow management.

Cabinet Specifications

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

Height and Width: Typical cabinets compatible with cold aisle containment systems include 600mm, 700mm, and 800mm widths and heights around 1950mm. Heat Load Capacity: Modern cold aisle containment systems can handle up to 20kW per cabinet, supporting high-density server deployments, compared to conventional raised floor cooling systems that manage 7–8kW per cabinet. Door and Panel Options: Containment systems may feature sliding or swinging doors, often with Lexan (polycarbonate) windows for visibility and safety.

Panels are modular and removable for maintenance.

Containment System Features

Airflow Management: Cold aisle containment isolates the cold air supply from hot exhaust air, ensuring uniform, predictable temperatures at server inlets and reducing hotspots. Energy Efficiency: By directing cold air precisely to equipment intakes, containment systems improve cooling efficiency and reduce energy consumption. Modularity and Scalability: Systems are designed to adapt to various data center layouts, supporting aisle widths from 36 inches to 96 inches and allowing easy reconfiguration as demands evolve.

Passive vs Active Systems: Passive systems rely on existing cooling and server fans, while active systems may integrate additional airflow management components.

Summary

Cold aisle cabinets and containment systems are critical for efficient data center cooling, equipment reliability, and energy savings. Key parameters include aisle width (1. 2–1.

8 meters), cabinet dimensions (typically 600–800mm wide, 1950mm high), heat load capacity (up to 20kW per cabinet), and modular containment features such as sliding doors and removable panels. Proper design ensures uniform airflow, reduced hotspots, and scalable deployment for high-density server environments.

Article Content

Cold Aisle Containment | Legrand

A highly engineered data center cabinet solution that delivers fast, built-to-order configurability, best-in-class strength, and scalability regardless of the application.

Tate Cold Aisle Containment System

A Cold Aisle Containment (CAC) system encloses the cold supply air within the aisle, preventing it from mixing with hot exhaust air. This ensures servers receive

Aisle Containment

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

Upgrade your data center with our conversion kit for efficient hot/cold aisle containment. It transforms single-row end-of-row frame into a wider, U-shaped

KabinPLUS Aisle Containment Solutions

Aisle Containment Solution - Cold Aisle Cold Aisle Containment for rack cabinets with single or double sliding doors and sliding roof frame units fabricated out of

AISLE CONTAINMENT

Aisle containment in the data center requires that cabinets are aligned in a hot aisle/cold aisle layout. Containment panels or strips create a partition to isolate either the server supply air (cold aisle

CONTAINMENT SYSTEM

Modular sliding or swinging door versions available with optional “soft” self-closing mechanisms and hold-open provisions. Accommodates aisle widths from 36” wide to 96” wide. Standard

Air Containment Solutions for Data Center Airflow | Chatsworth

Build To Spec (BTS) includes all of the components needed to construct a ceiling-supported or cabinet-supported duct system to capture and direct airflow in the contained aisle.

APC NetShelter Aisle Containment | Schneider Electric USA

Browse our products and documents for APC NetShelter Aisle Containment - Hot and cold air containment systems designed to maximize cooling predictability, capacity, and efficiency at the rack,

Hot and cold aisle cooling containment

More frequently, data centers are using hot and/or cold aisle cooling containment solutions to help with managing airflow, eliminating hot spots and improving energy efficiency. In most cases, the rack

Lepin Network | Cold Aisle Containment system

Aisle containment in the data center requires that cabinets are aligned in a hot aisle/cold aisle layout. Containment panels or strips create a partition to isolate either the server supply air (cold aisle

Data Center Racks, Cabinets, and Cages: An In-Depth

Inside a data center, a labyrinth of servers and high-tech networking gear are arranged in specialized racks, secure cabinets, and impenetrable cages.

New zealand overseas warehouse cold aisle cabinet 1u France

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

All Companies and suppliers for new-zealand-overseas-warehouse-cold-aisle-cabinet-1u Find wholesalers and contact them directly Leading B2B martketplace Find companies now!

new-zealand-overseas-warehouse-cold-aisle-cabinet-1u ...

All suppliers for new-zealand-overseas-warehouse-cold-aisle-cabinet-1u Service provider Find wholesalers and contact them directly B2B martketplace Find companies now!

Aisle Containment | Vertiv Hot/Cold Aisle Containment Solutions

Product Vertiv™ Aisle Containment Freestanding, Rack-independent system with the flexibility to maximize efficiency and capacity from the core to the edge for raised floor and slab data centers.

Aisle Containment Systems Physical Containment Systems ...

Aisle Containment Systems by VertivTM Aisle Containment is the logical extension of the hot aisle/cold aisle concept of data center design.

Data Center Hot/Cold Aisle Containment Systems | Eaton

An aisle containment system is a simple way to improve cooling efficiency in hot aisle/cold aisle rack configurations. Essentially creating a room within the aisle,

Data Center Design: Hot Aisle & Cold Aisle – Length and Width ...

Data Center Design: Hot Aisle & Cold Aisle – Length and Width Requirements Efficient airflow management in data centers relies heavily on proper Hot Aisle and Cold Aisle configurations. To

Cold Aisle Containment in Data Centers | Subzero

Cold aisle containment systems use doors at aisle ends, ceiling panels or lids above racks, and structural frames to create enclosed zones where cold supply air

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

Contact Us

Continue your research online:

Website: https://cgweb.co.za
Technical inquiry: https://cgweb.co.za/project-enquiry.html

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved