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Cold Aisle Containment Systems (CACs)

The realization of complex data center containments requires careful planning and the integration of special accessories to ensure optimal performance, security and efficiency.

Sliding doors with access control:

Sliding doors are an essential element for controlling access to the data center and preventing unauthorized persons from entering. Access control systems such as biometric identification or RFID card readers can be integrated into the doors to increase security.

Roof elements with integrated roof elevations:

Specially developed roof elements ensure efficient heat dissipation and air conditioning in the data center. The roof elements are optionally equipped with a soft-closing mechanism to introduce appropriate extinguishing agents into the cold aisle in the event of a fire.

Cable routes:

Cable routes are used to route cabling in an orderly manner and keep it separate from critical infrastructure. This makes maintenance easier, minimizes disruptions and increases safety.

Cold and hot aisle separations

Creating cold and hot aisles is a proven method for improving energy efficiency. Cold aisles deliver cooler air to the servers, while warm aisles exhaust warm air from the servers. This separation optimizes cooling and reduces energy consumption.

Fiber Runner integration:

A fiber runner pathway can be easily integrated on the top of the CACS for high performance cable management, engineered for speed, stability and efficiency, it ensure secure routing and long term protection for Fiber cables.

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Roof elements

Description:

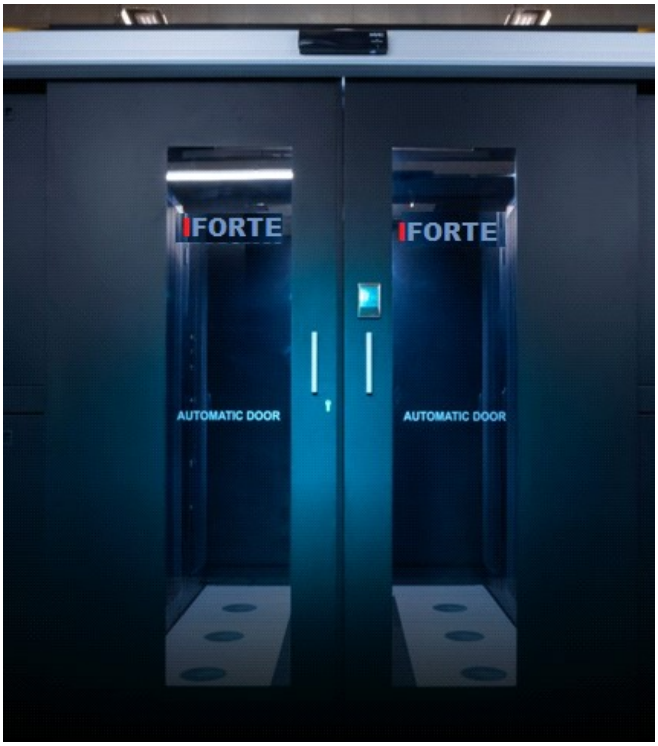
our diverse roof elements, which were specially developed to meet the requirements of modern data center containment installations. All roofs can be easily integrated into our cabinet range

- Roof element, closed, plexiglass
- Roof element, closed, polycarbonate

Technical data

Roof element, closed, plexiglass	Glass roof element with Plexiglass, closed version. For fixed installation on the cabinet. Delivery includes fastening material.
Roof element, closed, polycarbonate	Roof element with polycarbonate plate, closed version. For fixed installation on the cabinet. Delivery includes fastening material.
Width (mm)	1200
Depth (mm)	300, 600 or 800
Color	White, Grey or Black
Glass roofs for transparency and light	glass roofs not only provide excellent insulation and cooling, but also provide transparency and natural light in your containment areas. This gives you full control over your infrastructure and at the same time benefits from a pleasant working environment.
LED lighting modules 	1200mmx300mm LED lighting technology, which ensures bright and even illumination of your containment areas. LED lighting is extremely energy efficient and helps reduce your energy consumption and operating costs. The lighting modules are customizable and can be set in different configurations and brightness levels. Bright lighting improves safe ty and visibility in your containment areas and makes it easier to maintain and monitor your infrastructure.
Safety in the event of a fire	Our lowerable roof elements provide crucial protection in the event of a fire and minimize the impact on your data center. Extinguishing gases can be supplied to the containment from outside after the roofs are automatically lowered. Your valuable IT infrastructure remains intact.
Roofs for different rack widths	Our roof elements are available in different sizes to suit different rack widths. This allows you to precisely adapt and optimize your containment installations.
Glass roof element with soft-closing mechanism	roof elements can be equipped with a soft-closing mechanism.

Door systems – electronically controlled



In the world of data centers, efficiency and security are of utmost importance. In this context, automatic sliding doors have proven to be crucial components for optimizing containment installations. Various door systems for the cold aisle enclosures are available to users. Solid, mechanically controlled doors through to sensor controlled, automatic sliding doors complement the extensive portfolio.

Precise control and security: Our automatic sliding doors are equipped with state-of the-art sensors that enable precise detection of people and objects. This not only ensures smooth operations, but also minimizes the risk of accidents and damage to equipment and personnel.

Seamless integration: Our sliding doors are designed so that they can be seamlessly integrated into our cabinet range.

Energy efficiency: The automatic sliding doors are extremely energy efficient. They open and close only when necessary to optimize temperature and energy costs in your data center.

Reliability: Our sliding doors are designed for durability and reliability. They have been tested to meet the requirements of a data center in terms of uptime and resilience.

Ease of use: The operation of our automatic sliding doors is simple and user-friendly. You can easily integrate them into your existing access control and surveillance systems.

Single-leaf sliding door, cold aisle, electronically operated	One-piece sliding door with electronic locking system. Suitable for closing enclosures with an aisle width of approx. 1200 mm and cabinet heights of 42 U and 48 U. Sliding door with large viewing window over the entire door height. Visible insert made of 3mm toughened safety glass. Opening by “Push to open”, closing automatically or “Push to close”. Hold open time can be set variably; external control via interface possible; operating voltage 230 VAC, 50/60 Hz, passage height 2000 mm, passage width 1160 mm
Door leaf	Rail supports, cladding, etc.
Material	Sheet steel
Viewing window	Toughened safety glass 4 mm
Surface	Powder-coated gray (RAL 7035) or black (RAL 9000)
Scope of delivery	2 rail supports, 1 door leaf with glass surround, 1 electronic closer, door covers, mounting material
Double-leaf sliding door, cold aisle, electronically operated	Two-part sliding door with electronic locking system. Suitable for closing enclosures with an aisle width of approx. 1,200 mm and cabinet heights of 42 U and 48 U. Sliding doors with large viewing windows over the entire door height. Visible insert made of 3mm toughened safety glass. Synchronous opening and closing of both door leaves. Opening by “Push to open”, closing automatically or “Push to close”. Hold open time can be set variably; external control via interface possible; operating voltage 230 VAC, 50/60 Hz, passage height 2000 mm, passage width 1160 mm
Door leaf	Rail supports, cladding, etc.
Material	Sheet steel Viewing window toughened safety glass 4 mm
Viewing window	Toughened safety glass 3 mm
Surface	Powder-coated gray (RAL 7035) or black (RAL 9000)
Scope of delivery	2 rail supports, 2 door leaves with glass surrounds, 1 electronic closer, door covers, mounting materials.

Door systems - manually operated

Our range of manually operated sliding doors has been specifically designed to meet the requirements of simple locking systems. With manually operated sliding doors, you retain control over access to critical containment areas and can react flexibly to changes. Manual operation eliminates the need for expensive automatic systems and reduces operating costs.

Robust construction: Our sliding doors are made of high-quality materials that ensure long life and reliability. They are designed to withstand the demanding conditions in data centers.

Easy to use: The manual operation allows direct control over access to containment areas. Employees can easily open and close the doors without having to rely on automatic mechanisms.

Flexibility: Our sliding doors are available in different sizes and designs to meet the specific needs of your data center. They can be easily integrated into existing containment systems.

Safety: Despite being manually operated, our sliding doors are equipped with safety features to protect employees and data center equipment.

Maintainability: Our sliding doors are designed to be maintenance-friendly to minimize downtime and ensure the smooth operation of your data center.

Single-leaf sliding door, cold aisle, manually operated	Single-leaf sliding door with mechanical opening mechanism. Suitable for closing enclosures with a corridor width of approx. 1200 mm and cabinet heights of 42 HE and 48 HE. Sliding door with a large viewing window over the entire height of the door. Viewing insert made of 3 mm toughened safety glass. The door leaf can be opened by gently pulling on the door handle, it closes automatically after a preset time. The time it stays open can be adjusted variably
Material	Rail supports, cladding and door leaves made of sheet steel
Viewing window	Toughened safety glass, 4 mm
Surface	Powder-coated
Scope of delivery	2 rail supports, 1 door leaf with glass frame, door covers, assembly material
Double-leaf sliding door, cold aisle, manually operated	Tight-closing, double-leaf enclosure door, opening symmetrically from the inside and outside, door closes automatically using an automatic door closer on top, door leaves are stored and attached to 2 robust metal hinges each. Passage height 2000 mm, passage width 1160 mm, delivery includes fastening material.
End of row closing panel, 1200mm	Robust and flexible thanks to solid two steel sheet construction. Suitable for aisle widths of approx. 1200 mm and aisle heights of up to approx. 2400 mm.
Material	Steel sheet, 1.35mm
Surface	Powder - coated gray (RAL 7035) or black (RAL 9000)
Scope of delivery	2 metal elements approx. 600mm x rack height, mounting material
Filler panel	For sealing off the compartments without racks in the suite. Can be combined with roof elements for a corridor width of approx. 1200 mm and aisle heights of up to approx. 2400 mm
Material	Dummy element made of 1.35mm sheet steel
Surface	Powder - coated in gray (RAL 7035) or black (RAL 9000)
Scope of delivery	Dummy element including assembly material

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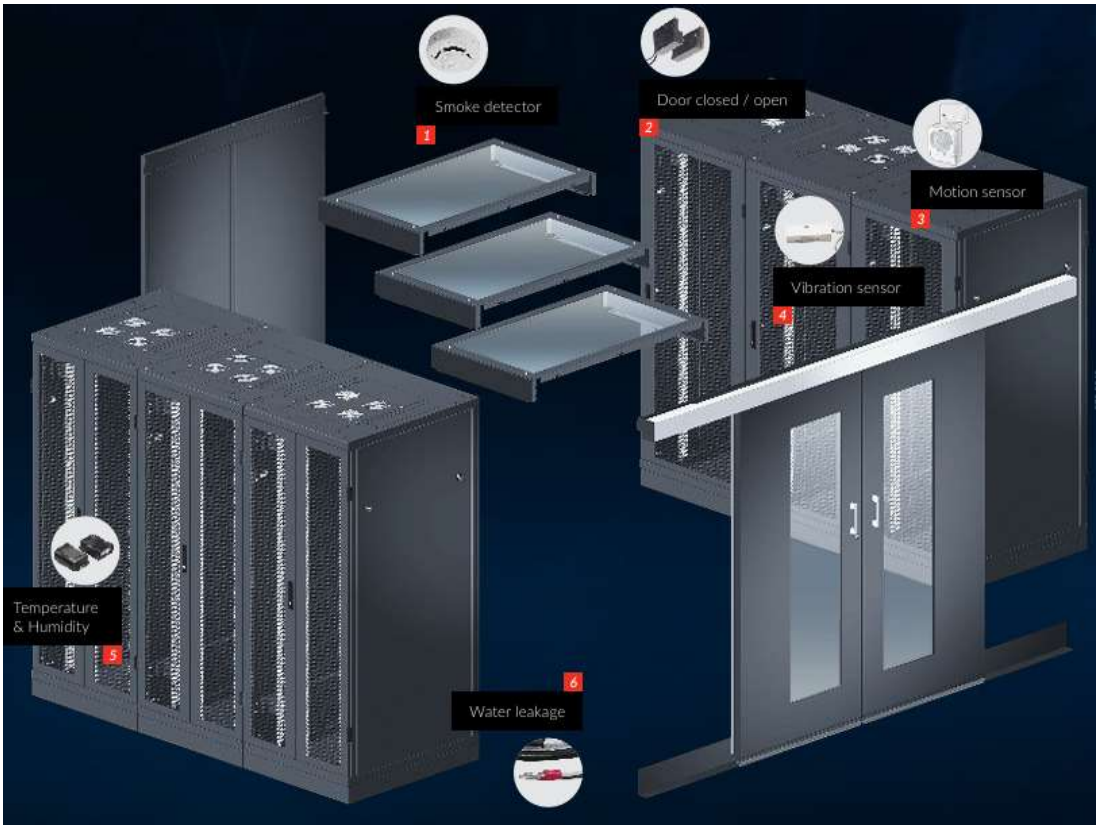
Environmental sensor types Flexible cabinet monitoring using intelligent sensors



Temperature and humidity sensor	
Door contact sensor	
Smoke detector	
Water sensor	

Description
The environmental monitoring device that allows you to monitor temperature and humidity and the status of 2 digital input sensors such as water leakage, door contact, smoke detection and any other sensor with normally open or closed signal.

Environmental port for Sensors
- Programmable buzzer
- Overload
- all in one temperature and humidity sensor with possibility to connect 2 more sensors, e.g. door open/closed, smoke, water

Notifications
- Programmable sending of email
- Sending of alarms via standard SNMP protocol

Networking
- HTTP(s); SSH • RS-485 (Seriell)
- SNMP v1/v2/v3
- SMTP
- MODBUS

The sensors can be deployed in cascades with up to 8 EMD sensors per iPDU using RJ45 network cables.