



CITEC ISO

Fully Isolated Containment Series

An AI-Enabled Edge Computing Essential



PRECISION | EFFICIENCY | CREATIVITY

THE FUTURE OF DATA CENTERS



What does the future hold for the data industry?

Trends are converging, change is necessary and staying at the forefront of business is essential. Here is everything you need to know about where the data industry is headed based on opinions from experts of the field.

Data centers are using more and more energy. An increased resource consumption will also lead to an increase in the usage of high-technologies cooling systems.

In the near future, we are forecasting a gradual shift towards the usage of prefabricated modular designs in the facilities of all enterprise data centers; and as the years progress, the number of hyper scalers to follow this trend is only expected to increase. This also gives rise to integrated solutions for data centers, such as power, cooling and IT modules.

SO WHY USE A MICRO DATA CENTER?

In recent years, applications, network, content delivery and 5G have created a high demand for low-latency access to data processing and storage. While large-scale data centers create economies of scale, they cannot economically bring data processing close enough to end-users. But the transformation of the digital architecture enables new ways of connecting.



Bring compute and storage resources closer to end-users while reducing costs and deployment times and increasing both resilience and scalability.



Easily adaptable to fit your environment; fully integrated with an all-in-one design that fulfills the needs of any enterprise just as a regular-scale data center would.

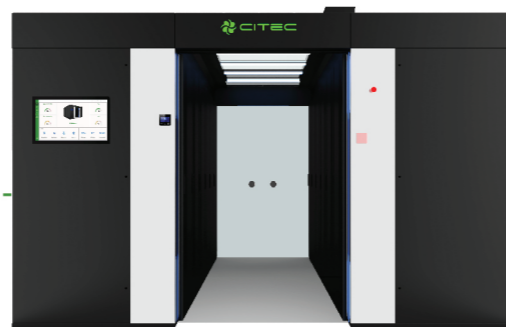
INTRODUCTION



Micro Data Center (MDC)



Single Row Containment

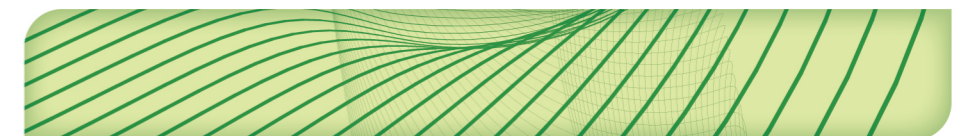


Dual Row Containment

MDC is the simplest and fastest solution to house the critical IT equipments which integrated with cooling system, UPS backup, monitoring system and security access control.

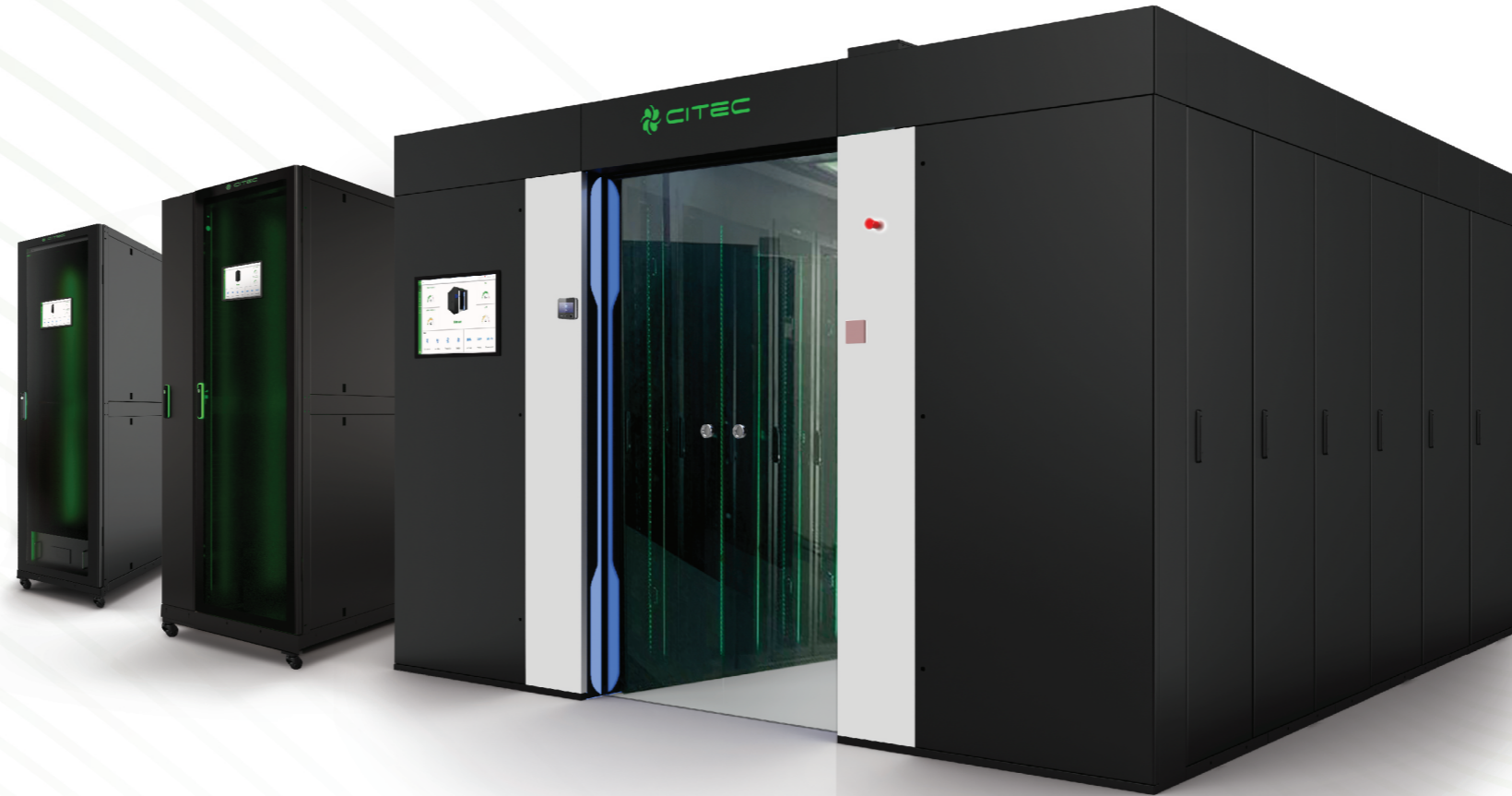
Data is arguably the most valuable commodity. Because they house the most critical assets, data centers are vital to the smooth continuity of daily operations, and are designed to support business applications.

So set your mind at ease with the use of a micro data center.



PRODUCT SOLUTIONS

Why choose CITEC ISO Containment Series as your fully integrated IT solution for business?



01

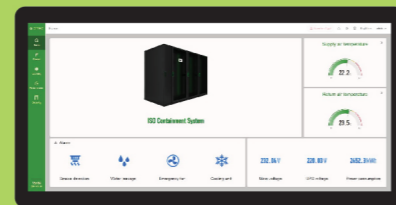


Solving Problems of The Past

In the past, physical data centers were hard to manage, with difficult site selection, slow constructions and a high cost of implementation. These sites also come with the additional issue of high energy consumption and inefficiency with potential for failures.

Other optional features include: smoke detector, emergency door release, water leak system, CCTV and high security door access.

02



Futuristic Technology

CITEC ISO Containment Series solves the common issues of data storage by leveraging on modern technology such as Artificial Intelligence (AI) and high tech security features.

This eliminates the potential for failures and bugs that would previously be caused by manual operations or even out-of-date technology.

03



Distinct Features & Equipment

The use of data centers with CITEC ISO Containment Series ensures a scaled IT infrastructure for quick, hassle free operations that lead to an enhanced customer experience.

CITEC ISO Containment Series is equipped with modern and advanced features such as the choice between the installation of either dual or single row cabinets for deployment in different scenarios. It also features Hot/Cold Aisle Containment, which collects data from temperature sensors to provide suitable cooling control and optimum performance with lower PUE.

CITEC Server and Network Racks also ensure an enhanced security of IT equipment, with even better energy efficiency and centralized control.

FEATURES & HIGHLIGHTS



01

Innovative

Engineered with an effective design to achieve a perfect model that ensures complete isolation and prevents the escape of hot air to the room ambient.



06

Secure

Rest assured with high security access control, alarm notifications through email or WeCom; a platform for convenient communication.



05

Functionality

Built with even more capacity and interactive functionality; enhances users engagements by providing a dynamic and responsive experience.



02

User-Friendly

CITEC ISO Containment Series is designed with an All-In-One configuration concept and a swift "plug-and play" concept.

Boasts a simplistic interface to easily navigate between operation status, temperature and humidity trend graphs. Available in English, Chinese, Japanese, Malay and Thai languages.



03

Smart

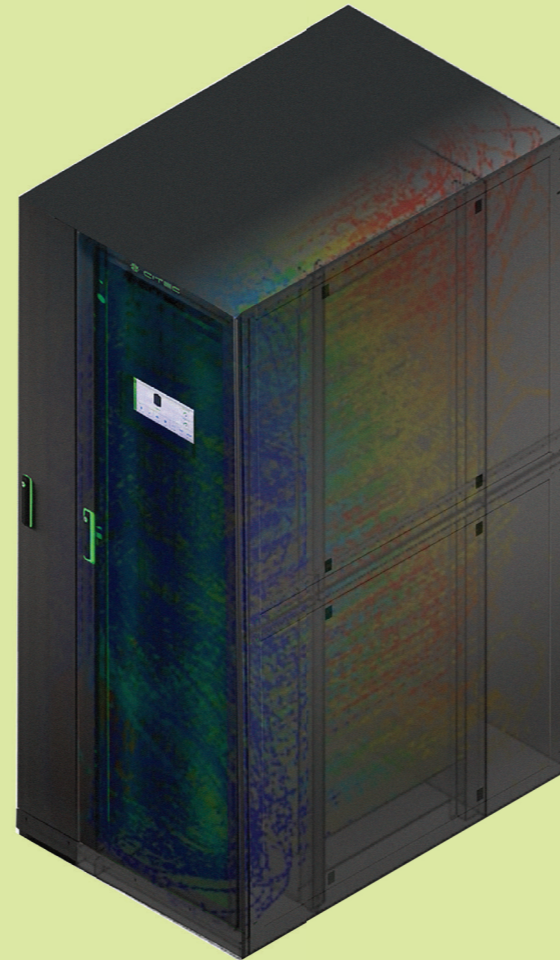
Uses state-of-the art modern technologies by implementing the usage of higher security facial recognition, fingerprint, push button or card access and CCTV monitoring system.



04

Versatile

CITEC ISO Containment Series is essential to every business where consumer would benefit from its use.



IRC



IRC - PREMIUM



TECHNICAL SPECIFICATION

	IRC-S	IRC-I
Cooling System	Split	Integrated
Cooling Unit Capacity	3.5 or 7.5kW	3.5kW
Refrigerant	R410A	
Rack Dimension (W x D x H)	600 x 1200 x 2000mm	600 x 1200 x 2000mm
Rack Usable IT Space	32U	28U
UPS Capacity	3kVA	
Rack PDU	12 x C13 + 4 x C19	
Door Lock	Standard: Mechanical Key Lock for Steel Door or LED Push Button for Tempered Glass Door Option: Intelligent Lock (Finger Print and Card) for Tempered Glass Door	
Environment Monitoring System	Temperature and Humidity Sensor, Smoke Detector, Sound and Light Alarm, LED Lighting, 10.1" Colour Touch Screen with IP Interface	
Emergency Mode	Included: Ventilation and Exhaust Fans Option: Automatic Released Door	

TECHNICAL SPECIFICATION

	IRC-P		
Cooling System	Split		
Cooling Unit Capacity	4kW	8kW	12kW
Refrigerant	R410A		
Rack Dimension (W x D x H)	800 x 1200 x 2000mm	800 x 1200 x 2000mm	900 x 1200 x 2000mm
Rack Usable IT Space	42U	37U	37U
UPS Capacity	3kVA	6kVA	6kVA
Rack PDU	12 x C13 + 4 x C19		
Door Lock	Standard: Mechanical Key Lock for Steel Door or LED Push Button for Tempered Glass Door Option: Intelligent Lock (Finger Print and Card) for Tempered Glass Door		
Environment Monitoring System	Temperature and Humidity Sensor, Smoke Detector, Sound and Light Alarm, LED Lighting, 10.1" Colour Touch Screen with IP Interface		
Emergency Mode	Included: Ventilation and Exhaust Fans Option: Automatic Released Door		

SINGLE ROW CONFIGURATION

- Integrated with 19" 42U IT Rack with compliance to EIA-310 standard.
- Option for Air Cooled or Chilled Water row cooling system.
- Built-in power management and distribution system.
- Integrated with EMS system with 10.1" colour touch screen display, equipped with PUE monitoring function and 3D dynamic interface.
- Option for built-in UPS and battery.
- Enhanced security feature with individual locking system and built-in emergency exhaust.
- Built in dual-colour LED lighting for normal operation and alarm triggered indication.

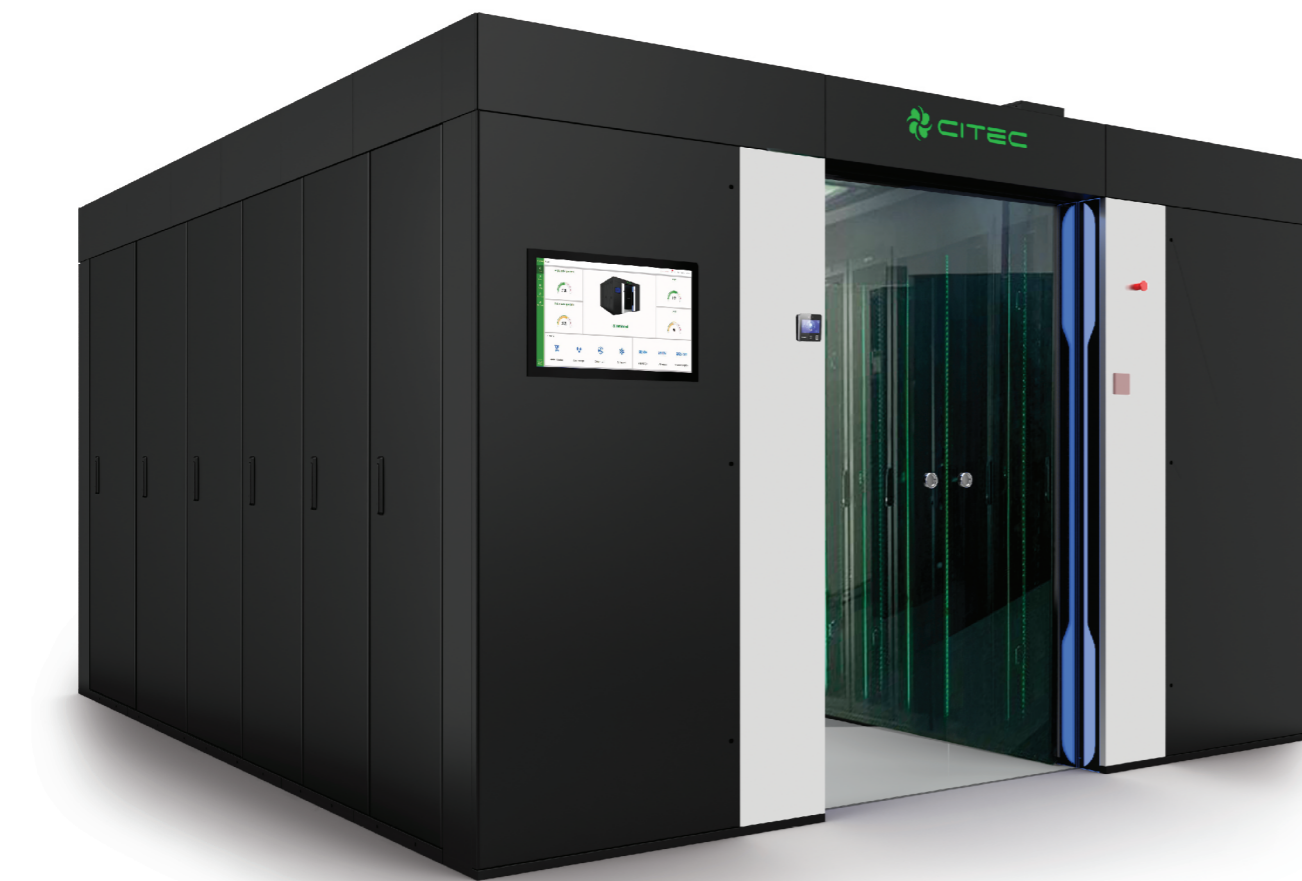


TECHNICAL SPECIFICATION

CONTAINMENT	
Dimensions (L x D x H)	L x 1200mm (D) x 2000mm
Power Supply	380 - 415Vac, 3P + N + E, 50/60 Hz
RACK	
Dimensions (L x D x H)	600mm x 1200mm x 2000mm, 800mm x 1200mm x 2000mm
Compliance	EIA-310 standard
Usable Space	42U
Door	Front and Rear Single Individual Locking System
Material	Cold Roll Steel SPCC 1.5mm
Withstand Weight (Static)	1800KG
Colour	RAL9005 (Black) / RAL9003 (White)
Protection Level	IP2X
Accessory (Optional)	Side Panel, Equipment Rail, Equipment Tray, Cable Management Tray, 1U Blanking Panel, Rack Mount PDU
AISLE	
Containment	Fully sealed and isolated
Emergency Exhaust	Automatic ON During Emergency
Lighting	Embedded LED Light
Accessories (Optional)	Temperature and Humidity Sensors, Smoke Detector, Fingerprint and Card Locking System, Audible Visual Alarm, Water Detection System, Cable Management System
POWER MANAGEMENT AND DISTRIBUTION	
Input	63A - 125A, MCCB / MCB
Output	A/B Source Output
Power Monitoring	3PH Voltage, 3PH Current, Frequency, Power Factor, Real Power, Reactive Power
COOLING SYSTEM	
Cooling Capacity ¹	8kW to 50kW
Airflow ²	0.8 to 2.7m ³ /s
Dimensions (L x D x H)	200mm x 1200mm x 2000mm; 300mm x 1200mm x 2000mm; 600mm x 1200mm x 2000mm
Airflow Configuration	Horizontal Flow
Air Filter	G2
Cooling Control	Modulation
Humidifier (Optional)	Evaporative Humidifier
Heater (Optional)	PTC Heater
BMS	Modbus RS485 / SNMP
Optional Item	Top/Bottom Piping and Power Entry ; Dual Power Source with Built-in ATS ; Condensate Pump
ENVIRONMENT MONITORING SYSTEM	
Display	10.1" Colour Touch Screen
Display Language	English / Chinese / Malay / Japanese / Thai
System Monitoring	Aisle Temperature & Humidity, Cooling System, Power Management System, UPS System, Smoke Detector, Water Detection
PUE Monitoring	Live and History

DUAL ROW CONFIGURATION

- Integrated with 19" 42U IT Rack with compliance to EIA-310 standard.
- Option for Air Cooled or Chilled Water row cooling system.
- Option for Cold Aisle and Hot Aisle Containment.
- Built-in power management and distribution system.
- Integrated with EMS system with 21" colour touch screen display, equipped with PUE monitoring function and 3D dynamic interface.
- Option for built-in UPS and battery.
- Built-in magnetic locking roof with automatic rotating mechanism for entry of fire suppression gas during power outage; equipped with one-click restoration control.
- Automatic sliding door with facial recognition security access.
- Built in dual-colour LED lighting for normal operation and alarm triggered indication.



TECHNICAL SPECIFICATION

CONTAINMENT	
Dimensions (L x D x H)	L x 3600mm x 2250mm
Power Supply	380 ~ 415Vac, 3P + N + E, 50/60 Hz
RACK	
Dimensions (L x D x H)	600mm x 1200mm x 2000mm
Compliance	EIA-310 standard
Usable Space	42U
Door	Front Single with Opening Ratio 75% Rear Fully Sealed Single Individual Locking System
Material	Cold Roll Steel SPCC 1.5mm
Withstand Weight (Static)	1800KG
Colour	RAL9005 (Black) / RAL9003 (White)
Protection Level	IP2X
Accessories (Optional)	Side Panel, Equipment Rail, Equipment Tray, Cable Management Tray, 1U Blanking Panel, Rack Mount PDU
AISLE	
Containment	Cold Aisle Containment / Hot Aisle Containment Configurable
Roof Material	Tempered Glass with Aluminium Frame
Magnetic Locking Roof	Automatic Release During Emergency via Magnetic Release with Rotate Downward Mechanism Automatic Restoration with Motorized Control
Lighting	Embedded LED Light
Doorways	Front - Automatic Sliding Door, Rear - Semi-auto Sliding Door
Access Control	Facial Recognition
Accessories (Optional)	Filler Panel, Temperature and Humidity Sensors, Smoke Detector, Fingerprint and Card Locking System, Audible Visual Alarm, Water Detection System
POWER MANAGEMENT AND DISTRIBUTION	
Input	160A / 250A, MCCB / Dual Source ATS
Output	A/B Source Output
Power Monitoring	3PH Voltage, 3PH Current, Frequency, Power Factor, Real Power, Reactive Power, Branch Power Status
COOLING SYSTEM	
Cooling Capacity ¹	20kW to 50kW
Airflow ²	12 to 2.7m ³ /s
Dimensions (L x D x H)	600mm x 1200mm x 2000mm
Airflow Configuration	Horizontal Flow
Air Filter	G2
Cooling Control	Modulation
Humidifier (Optional)	Evaporative Humidifier
Heater (Optional)	PTC Heater
Display	7" Colour Touch Screen
BMS	Modbus RS485 / SNMP
Optional Item	Top/Bottom Piping and Power Entry ; Dual Power Source with Built-in ATS ; Condensate Pump
ENVIRONMENT MONITORING SYSTEM	
Display	21" Colour Touch Screen
Display Language	English / Chinese / Malay / Japanese / Thai
System Monitoring	Aisle Temperature & Humidity, Cooling System, Power Management System, UPS System, Smoke Detector, Water Detection
PUE Monitoring	Live and History



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