ARCTIV™
IT Solutions Provider

www.arctiv-tech.com

Micro Data Center with In-Row Cooling & Aisle Containment

MICRO DATA CENTER
AISLE & ROW SOLUTIONS

Brochure

ArcTiv Technologies

Edge-Computing Solutions

YOUR DATA CENTER & IT SOLUTIONS PARTNER

ARCTIV IT Solutions Provider

ArcTiv Technologies is a global data center & IT solutions provider delivering high-performance products to Power, Protect, Cool and Connect your critical network infrastructure. We deliver customized, turnkey solutions to meet your data center and edge-computing application needs.

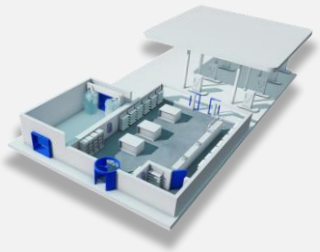
Find out more about our products and consulting services by contacting your local representative or visiting our website at:

www.arctiv-tech.com

Key Edge-Computing Applications

Branch Offices

Manage work-from-home & branch offices with edge-servers and networking systems. Safely secure the IT equipment with remote monitored rack, power and cooling solutions.



Retail

Edge technologies help to enhance security, mitigate infections and improve the customer experience while allowing IT managers to manage 1,000's of store locations.

Server Rooms

Micro Data Centers can be retro-fitted to minimize network latency & maximize bandwidth. MDC's provide remote management with minimal building modifications and installation costs.

Edge-Computing Product Line

Power

UPS & ATS
Clean power with remote monitoring for the edge

Intelligent PDU's
Remote monitoring & control for the edge

Protect

Server Racks & Cabinets
Remotely secure your edge networking systems

Access Control
Remote protection for access & system alerts

Cool

Micro Data Centers
Rack, power, cooling & monitoring for the edge

Cooling & Containment
Cooling system for room retrofits on the edge

Connect

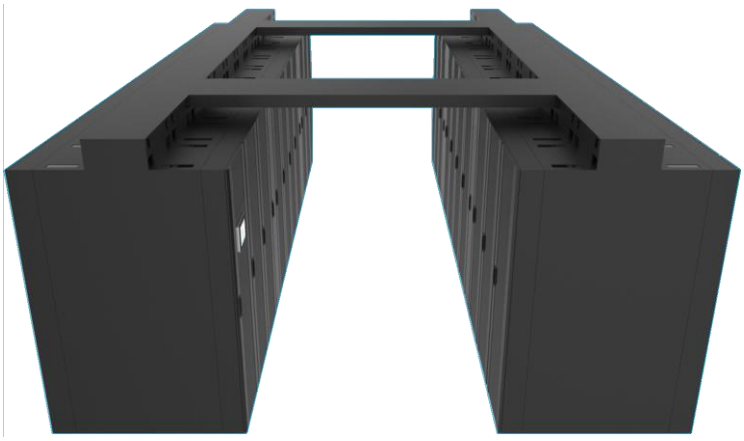
DCIM
Management of edge power & environment

IP-Based KVM's
Remote access of edge servers

Micro Data Center Aisle & Row Solutions

Product Line Overview

Micro Data Center with Aisle Containment
N+1 Power & Cooling Capacity



Micro Data Center with Row Cooling
N+1 Power & Cooling Capacity

The ArcTiv Micro Data Center Aisle & Row Solutions are specially designed for indoor applications where room-level cooling or building modification is limited. The high-performance system is ideal for remote applications as it provides monitoring and management of the power, cooling and environmental systems. The systems are offered in N+1 power and cooling redundancy with future scalability.

Benefits	
Lowe Cost of Ownership	Lower total investment than room cooling & raised floor
Universal Design	Configurable for server rooms and building retrofits
Rapid Deployment	Build, deliver and commission 12 weeks from order
Customization	Engineered-to-order to meet exact application requirements
Security	Rack & containment door access control
Capacity	Maximum RMU capacity and power & cooling density
Efficiency	In-row cooling system & cold/hot air management
Remote Management	Monitoring & management portals

N+1 Power & Cooling	Remote Monitoring
In-Row Cooling System Environmentally Friendly DX-Type Cooling	**All-in-One Controller** Network Controller and HMI with Remote Monitoring
Rackmount Online UPS System Intelligent Power System with Surge Protection	**3-in-1 Access Control** RFID, Fingerprint & PIN with system log

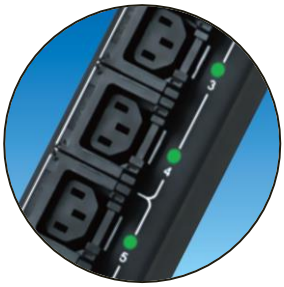
Micro Data Center Aisle & Row Solutions

System Overview

All-in-One Power, Protect, Cool and Connect Solution for Edge-Computing Applications

Power

Rack-Mount UPS, Battery & Power Distribution Module (PDM)

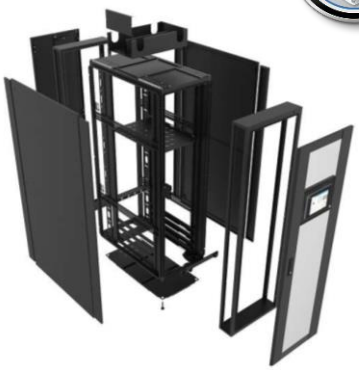


Power Distribution Unit (PDU)

Key Features:

- ✓ Rack-mount Modular UPS (N+1 options)
- ✓ External batteries
- ✓ Surge and lightning protection
- ✓ Maintenance bypass
- ✓ Basic or managed (switched) PDU's
- ✓ Remote device reboot (via managed PDU)

Protect



Rack

Access Control

IP Camera

Fire Suppression

Key Features:

- ✓ IP5X for indoor applications
- ✓ 42U racks with overhead cable management
- ✓ Magnetic locking system
- ✓ 3-in-1 access control (fingerprint, RFID, PIN)
- ✓ Rackmount automatic fire suppression
- ✓ IP camera and NVR

Cool

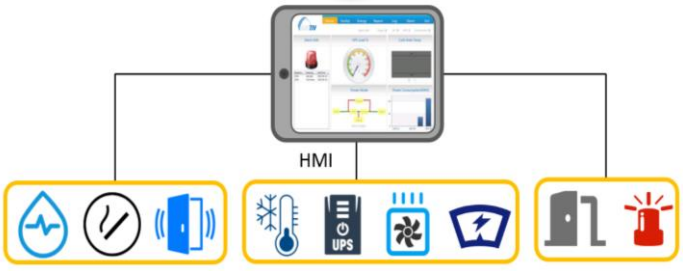
In-Row Cooling Unit

Cooling Management System

Key Features:

- ✓ DX-type cooling
- ✓ User adjustable internal temperature setting
- ✓ Humidity control (up to 95% non-condensing)
- ✓ Environmentally friendly agent (R410A)
- ✓ Easy set-up (Slide-Out Cooling System)
- ✓ N+1 Redundancy

Connect



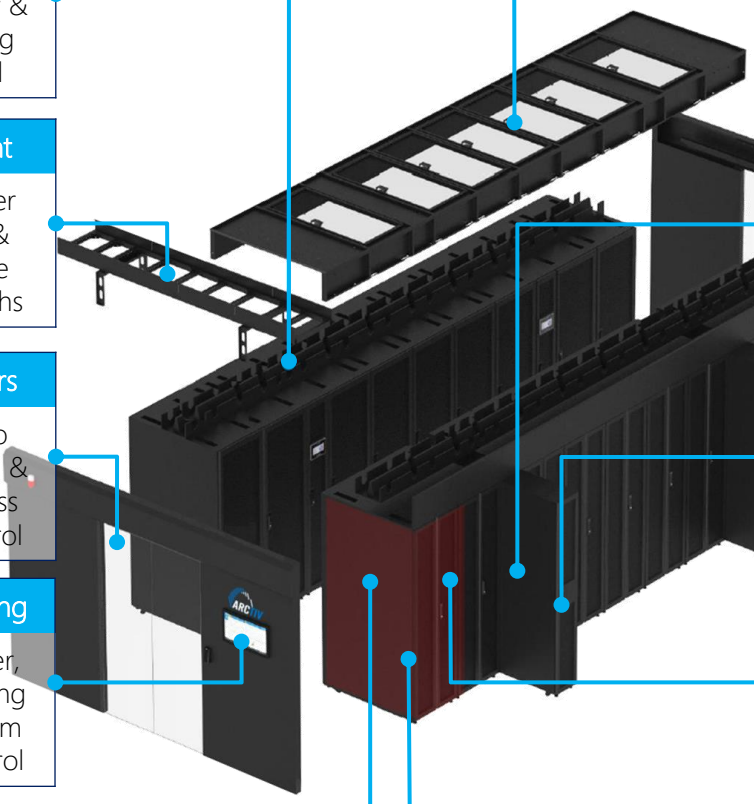
Monitoring System with Remote Management

Key Features:

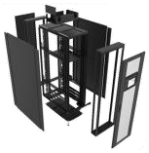
- ✓ 10" HMI with built-in network controller
- ✓ Temperature, humidity, smoke, water & door sensors
- ✓ Real-time power, cooling & environmental monitoring
- ✓ Web access and SMS alarms
- ✓ Password protected
- ✓ Compatible with 3rd Party DCIM Systems

Micro Data Center Aisle & Row Solutions

System Configuration

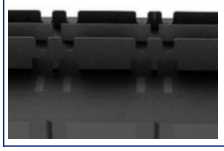


19″ Server Racks



+75% Airflow & 1800kg Load

Overhead Management



Ladder Rail & Cable Troughs

Aisle Containment Doors

Auto Doors & Access Control

HMI & Remote Monitoring

Power, Cooling System Control

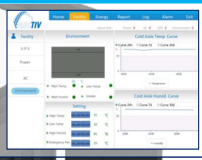
Fire Detection

Fire Suppression FM200 System

Modular Overhead System

Auto Fire Sense & Release

N+1 Power & Cooling



Redundant & Reliable Systems

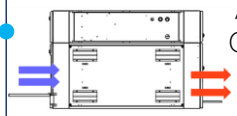
In-Row Cooling System

DX-Type Cooling Units

Intelligent Power System

Online UPS & Smart PDU's

Emergency Operation



Auto Door Over-Temp Release

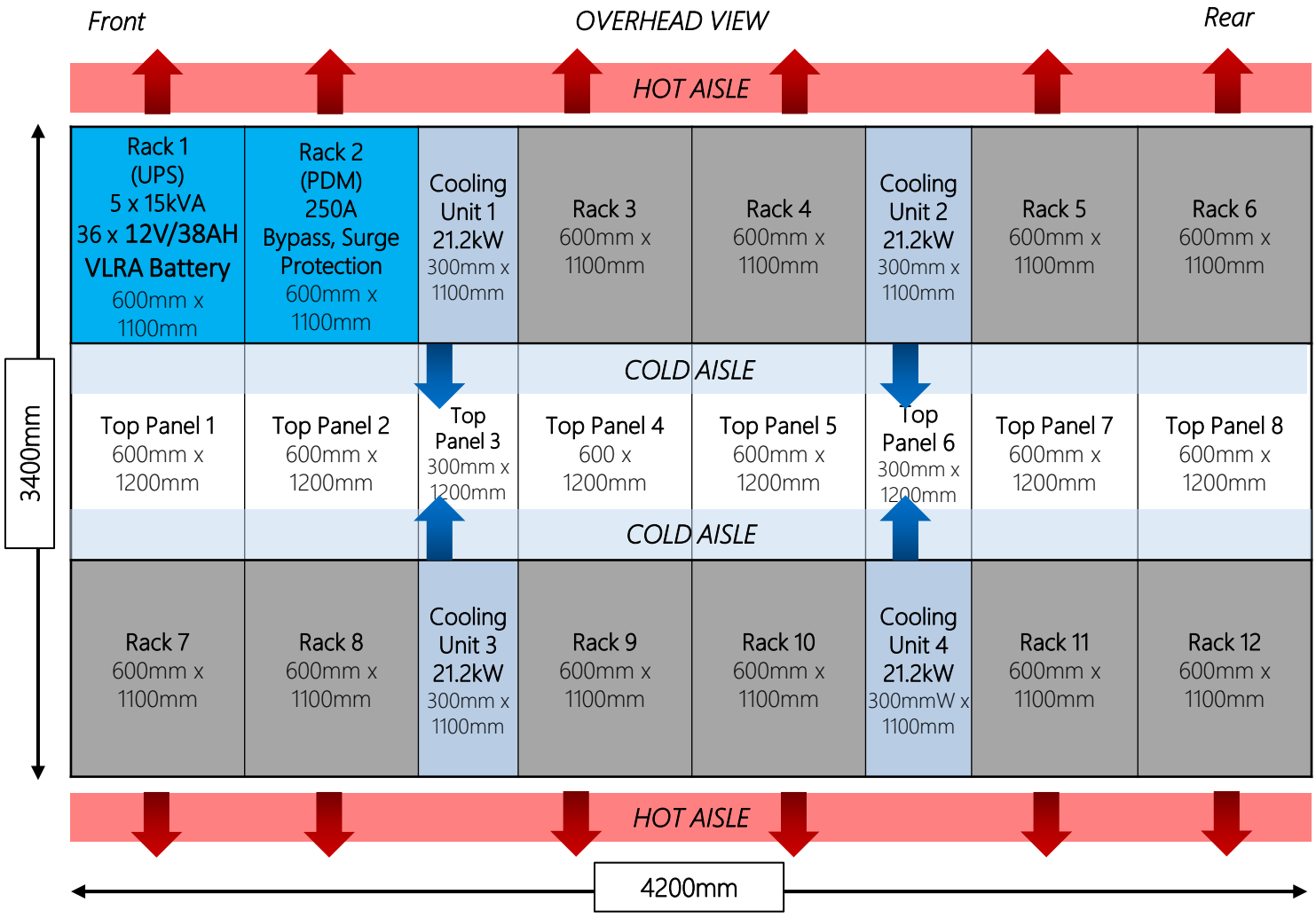
System Features

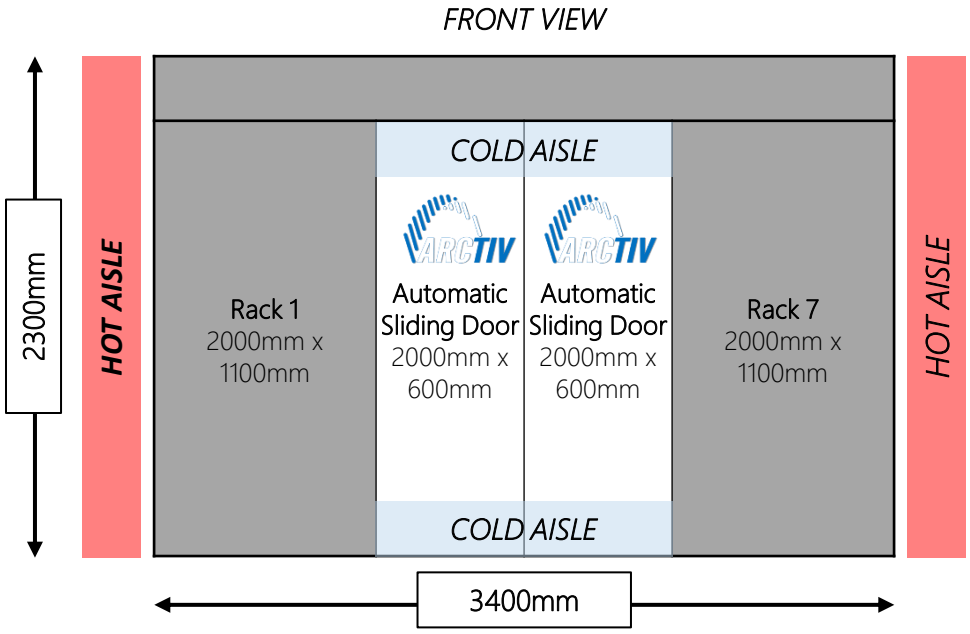
Category	Feature
Cooling	N+1 In-Row Cooling Temp & Humidity Controlled User Temp Adjustable Auto Door Temp Release
Physical	Scalable Racks with Containment Power, Cooling & Rack Customization In-Rack Cable Management High-Load & Airflow Rating Racks IP5X Rating Future Expandable

Category	Feature
Power	N+1 Modular Online UPS VLRA-Type UPS Battery Real-Time PUE Monitoring 3rd Party UPS & PDU Compatible Surge Protected
Security	3-in-1 Access Control FM200 Fire Extinguisher Agent
Management	All-in-One HMI Remote Access via DCIM Remote Alerts via SNMP Trap

Micro Data Center Aisle & Row Solutions

Layout & Dimensions – 12 Rack Aisle Containment Reference Design





SYSTEM CAPACITY

Power Capacity (N+1)	60kW
Cooling Capacity (N+1)	63.6kW
Available RMU	504
Back-Up Time	10 Minutes

Micro Data Center Aisle & Row Solutions

Technical Specifications – Reference Design

Parameter		ATMDCAC12
Racks	Rack Dimensions	42U x 600mmW x 1100mmD
	Rack Quantity	12
	Total Available IT Space (RMU)	504
Containment	Aisle Containment Doors	2 x Electric Sliding Doors; 1200mm Aisle Width
	Top Panels	4 x Hinged (600mmW x 1200mmD), 2 x Fixed (600mmW x 1200mmD)
	Containment System Controller	1 x Power & Control Module for Top Panel, Lighting, Smoke/Fire
Overhead Management	Top Cable Dividers	12 x 600mmW x 360mmD x 150mmH
	Ladder Rail	2 x 10' Ladder Rail (12"W)
Power	UPS Input	208V (3P) / 208V (3P), 50-60Hz
	UPS Output	5 x 15kVA (PF=1), (2U)
	UPS Redundancy	N+1
	UPS External Battery	VRLA Type: 36 x 12V/38AH (15U)
	Power Distribution Module (PDM)	Maintenance Bypass, Surge (30U)
	Power Distribution Unit (PDU)	24 x Basic (0U, 1P 32A, 20xC13, 4xC19)
Cooling	In-Row with Humidification	4 x 21.2kW, Inverter Compressor, External Condenser
	Cooling Redundancy	N+1
	Cooling Types	DX-Type, Wall Mount
Fire	Fire Detection & Suppression	2 x Rackmount (6U) Temp/Smoke Sensors, 4-8 Racks
	Fire Extinguishing Gas	FM200 Fire Suppression, Gas Volume 8kg
Monitoring	HMI	10" LCD (0U)
	Monitoring Functions	Temp, Humid, UPS, Cooling, Smoke, Water, Door
	Network Protocol	Web Portal, MODBUS SNMP via Converter
Security	Access Control	2 x 3-in-1 (RFID, Fingerprint, PIN)
	RFID Card	10
Environment	Operating Temp (Max)	45^0C
	Operating Humidity	0 – 95% (Non-condensing)
Safety	Certifications	CE
	Warranty	1-Year

Note: Reference design only. Systems are customized based on project and building requirements.

ARCTIV™
IT Solutions Provider

www.arctiv-tech.com

Power Protect Cool Connect

ArcTiv Technologies is a global data center & IT solutions provider delivering high-performance products to Power, Protect, Cool and Connect your critical network infrastructure. We deliver customized, turnkey solutions to meet your data center and edge-computing application needs.

ArcTiv USA Address:
ArcTiv Technologies, LLC
30 N Gould St Ste R,
Sheridan, WY 82801
USA

ArcTiv Taiwan Address:
ArcTiv Technologies, Ltd.
15f., No. 159, Sec 1, Keelung Rd.,
Xinyi Dist. Taipei City, 110
Taiwan (R.O.C.)

ArcTiv Bangladesh Address:
ArcTiv Technologies, Ltd.
Plot-155/1, 156, Road No. 1, Block-A,
Section-12, Pallabi, Dhaka, PO: 1216
Bangladesh

© 2020 ArcTiv Technologies, LLC. All rights reserved. ArcTiv and the ArcTiv logo are trademarks or registered trademarks of ArcTiv Technologies, LLC. While every precaution has been taken to ensure accuracy and completeness herein, ArcTiv Technologies LLC assumes no responsibility, and disclaims all liability, for damages resulting from use of this information or for any errors or omissions. Specifications are subject to change without notice.

AT_MDCARS_BR

Copyright (c) 2020 All Rights Reserved