COOLNET

Innovation and Precision

INTEGRATED DATA CENTER

Professional Data Center Soution Provider

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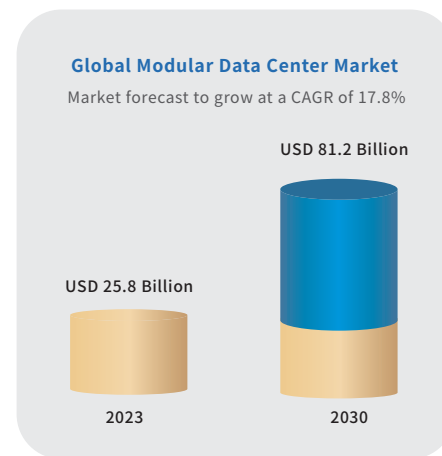Tel: +86-0551-65568275   Fax:+86-0551-65568275
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Why Choose Coolnet

Modular Data Center Market »

In the future, with the rapid development of technologies such as cloud computing, big data, and artificial intelligence, data centers will play an increasingly important role. As an emerging data center solution, micro-module computer rooms will become a new choice for future data center construction. It can not only meet the needs of enterprises for data center space, energy consumption, deployment speed, etc., but also improve the flexibility, reliability and manageability of data centers, helping enterprises achieve digital transformation and information construction.

Global Modular Data Center Industry Trends and (globenewswire.com)

The global modular data center market is expected to grow from USD 25.8 billion in 2023 to USD 81.2 billion by 2030 at a Compound Annual Growth Rate (CAGR) of 17.8% during the forecast period. The market has excellent growth opportunities.

Global Modular Data Center Market
Market forecast to grow at a CAGR of 17.8%

USD 81.2 Billion

USD 25.8 Billion

2023   2030

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 systems, UPS backup, monitoring systems 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.

Data Center Solutions

Coolnet Data Center Solution --Leading industry with the enhanced protection, deep integration, and optimized configurations

MetaRack Cabinet Solution

Innovative integrated cabinet (cabinet is the computer room) design concept, fully enclosed design, plug and play.

MetaRow Modular data center

Based on the single-row integrated design of multiple cabinets, IT cabinets are configured on demand, fully enclosed design, and modularized on demand.

MetaCuber Container Solution

The outdoor container solution based on multiple cabinets adopts IS0 standard or customized containers, fully enclosed design, one-stop integration, plug and play.

MetaRack Data Center

Product Description »

Coolnet Cabinet Data Center is an integrated cabinet which contains cooling system, power system, monitoring system and rack system, etc.. There are more and more micro data centers, and it has been facing the dilemma that it is difficult to unify the planning, construction and operation management. The integrated cabinet deeply integrates data center infrastructure products, including multiple subsystems such as UPS, power distribution, refrigeration, cabinets, and fire protection, and implements overall management of the entire system through the monitoring system.

Monitoring System

Integrated monitoring system with 10-inch touch screen, full monitoring of equipment in the cabinet, rich data processing and alarm management functions, support for remote web and mobile APP monitoring

Cabinet System

Standard 19-inch cabinet, fully enclosed design, dustproof and noise reduction, IP5X protection level, standard emergency pop-up door device, safe and reliable, with rich optional accessories.

Power Distribution

The rack-mountable design of the power distribution module provides safe and reliable power distribution, protection and monitoring functions at a mere U height.

UPS

3-20kVA rack-mounted high-frequency UPS system, highly efficient and reliable, continuous online uninterrupted.

Battery

Rack-mounted battery pack, supports lead-acid and lithium batteries, with external long-delay battery pack.

Security System

The front/back door of the cabinet comes standard with a 3-in-1 electronic access control system (fingerprint, password, ID card), which enhances the security level of the cabinet and supports unified remote management.

Cooling System

Fully inverter precision air conditioners with cooling capacity of 3.5kW - 12.8kW, rack or row level installation, with outdoor unit-less version, simple, reliable and energy saving.

Edge Brain Infrastructure monitoring

▶ Excellent User Interface

The 10 inches touch screen displays the running status in real time

▶ Comprehensive Monitoring

Standard monitoring interface, real-time monitoring of power distribution, UPS, temperature and humidity, smoke detection and other information to ensure stable operation

▶ Energy Management

Can display product energy consumption statistics and provide the last 12 months Trend graph of electricity consumption

▶ Multi-terminal access

Multi-terminal support, via APP or WEB browser Securely authenticated access to the system

Edge Brain Equipment monitoring »

➢ Monitoring of the operating status of IT equipment is available on request.

➢ The customer has to provide the communication protocol of the IT equipment to be monitored.

MetaRack Cabinet Solution

Product Description »

Standardised design, energy efficiency and expansion compatibility are taken into account, with standardised power, cooling and cabinet units to help IT professionals seamlessly plan, expand and manage these future-proof data centre critical infrastructures.

Closed Channel System

Separate cold/hot enclosed aisles are integrated into the front and rear of the cabinet.

Monitoring System

Integrated monitoring host, 10-inch touch screen, supports local and remote information collection, display and alarm.

Security System

The front door of the cabinet is equipped with a 3-in-1 access control system (fingerprint, password, ID card) as standard to improve the security level of the cabinet. Optional rack-mounted fire extinguishing system.

Cabinet

Standard 19-inch cabinet, compatible with all types of IT equipment, with front glass door, rear sheet metal door, and automatic door opening device as standard.

Power Distribution

The rack-mounted power distribution unit provides reliable power distribution, protection and monitoring for the system.

UPS System

The UPS system is installed in the 3-90KVA cabinet, which is efficient and reliable and supports redundant design.

Cooling System

Precision air conditioners with a cooling capacity of 3.5kW – 65.7kW, supporting integrated top-mounted, rack-mounted and row-level, high-efficiency cooling.

MetaRack Typical Configuration

Applications »

Indoor scenes in finance (sub-branches and large business outlets), government, internet, education, healthcare, transport, energy, small and medium-sized enterprises (SMEs), commercial retail, and operators' business outlets.

Monitoring interface »

It has a good human-computer interaction interface and touch performance, supports multiple terminals, can be accessed through a WEB browser, and can access the system after security authentication. Intelligent linkage strategy, multi-channel control (local, Web page, mobile APP), diversified alarm options (sound and light, SMS, voice, email), supports multi-site centralized monitoring management, and real-time uninterrupted monitoring of equipment operation.

Web   App   Access Control   Video

E-mail   SMS   Sound and Light

Precision Air Conditioning   Temperature and humidity   Water Leak   Intelligent Lighting

UPS   Power Distribution Module   Battery

Smoke Sensor   Fire Fighting   Door Magnet   Emergency Ventilation

Three interactive experiences

Screen
10-inch touch screen, smooth operation

Remote Web Access
Remote management, just like being on site

Mobile APP Access
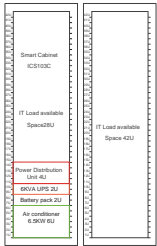Control the overall situation anytime, anywhere

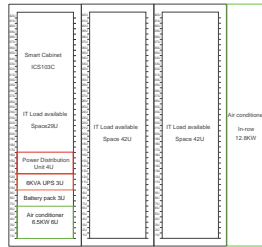# MetaRack Typical Configuration

Pre-configured Models

EC20

Cabinet: 1*Combined Cabinet
UPS: 3KVA Rack Type
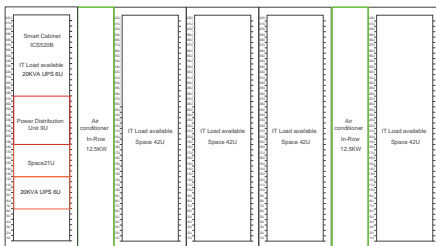Cooling: 3.5kW Rack Air Conditioner
Redundancy: N

ER02

Cabinet: 1*Combined Cabinet + 1*IT Cabinet
UPS: 6KVA Rack Type
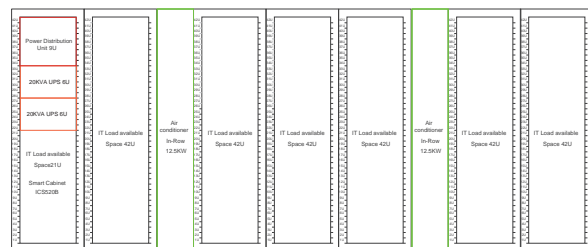Cooling: 6.5kW Rack Air Conditioner
Redundancy: N

ER03

Cabinet: 1*Combined Cabinet + 2*IT Cabinet
UPS: 10KVA Rack Type
Cooling: 12.5KW In-Row
Redundancy: N

ER05

Cabinet: 1*Combined Cabinet + 4*IT Cabinet
UPS: 20+20(kVA) Rack Type
Cooling: 12.5kW In-Row
Redundancy: N+1

ER07

Cabinet: 1*Combined Cabinet + 6*IT Cabinet
UPS: 30+30(kVA) Rack Type
Cooling: 25.1+25.1 KW In-Row
Redundancy: N+1

MetaRack Technical Parameter

220~380V/3P/50~60Hz

Series		Conventional Air Conditioning Version			
System	Index	EC20	ER02	ER03	ER05
Power Supply and Distribution	UPS Capacity	3KVA	6KVA	10KVA	20KVA
	Power factor	0.8	0.8	0.8	0.9
	Total power input	220V/40A	220V/63A	220V/125A	380V/125A
	Height				
	Lightning protection	C class			
	Others	ATS Modle（optional）			
Cabinet	Recommended number of IT cabinets	1	2	3	5
	Available Space	28U	33U+42U	29U+2*42U	30U+4*42U
	Number Of Pdus In A Single Rack	1*8bit10A	1*12bit10A		1*(12bit10A+4bit16A)
	Closed Aisle	Fully enclosed cold and hot aisle			
	Ergency Ventilation	Fan-type emergency ventilation system, support maximum 5KW heat dissipation, automatic start and stop			
	IT Space Expansion	Standard IT cabinet with 42U usable space (optional)			
Refrigriation	Type	Rack Mount	In Row	In Row	In Row
	Cooling Capacity（KW）	3.5	7.5	12.5	2*12.5
	Sensible Heat Ratio	1			
	System	Compression system +EC fan			
Monitoring	Monitoring volume	UPS、Power distribution、AC、Water leakage、Temperature & Humidity、Smoke、Door sensor			
	Function	Data collection and storage, alarm management, energy consumption analysis, remote access, sound andlight alarm (optional), SMS alarm (optional), APP (optional)			
	Display	10-inch Touch screen			
Fire	Heptafluoropropane	1URack-mounted gas fire extinguishing system (optional)			
Battery	Standard Number Of Batteries	8	16	16	20
	Backup Power For 15 Minutes	2UBattery Pack	3UBattery Pack	_	6UBattery Pack
	Backup Power For 40 Minutes	_	_	_	External 20 100A/12V
	Backup Power For 90 Minutes	_	_	_	_
	Longer Time Delay	Can be replaced with high-capacity batteries or increase the number of battery packs (not more than 4)			
Size	W*D*H-mm	600*1200*2000	1500*1200*2000	2100*1200*2000	3600*1200*2000
Environment	Environment Temperature	0~45℃			
	Environment humidity	Relative humidity 0-95%, no condensation			
	Altitude	<1000m，The excess part is derated according to relevant standards			

MetaRow Modular Data Center

Coolnet 's micro-modular data center solution adopts a modular design and integrates data center infrastructur subsystems such as cabinet systems, channel systems. power supply and distribution systems, air conditioning systems and monitoring systems to provide customers with rapid deployment, high efficiency, energy saving, A new type ofdata center with compact space and flexible expansion can effectively meet customers' reguirements for eflicient, reliable fast, flexible. and intelligent management of data centers in the cloud era.
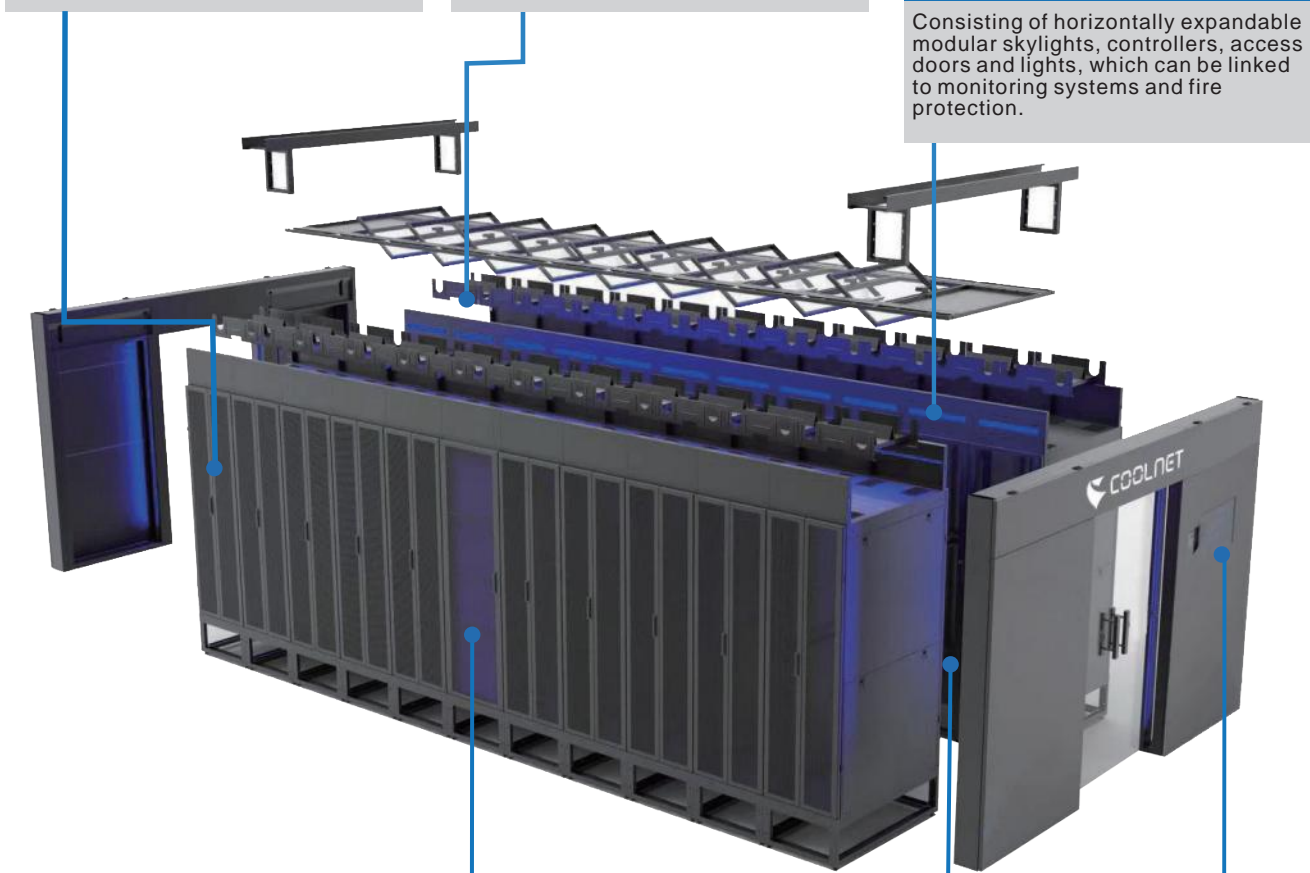
IT Cabinet

Standard 19-inch cabinet, compatible with all kinds of IT equipment, high throughput mesh door, static load capacity1800kg, complete dimensions, abundant accessories.

Cabling System

The cross-column cable ladder supports cabling between two rows of racks, and the M-type cable channel installed on the top of the rack supports the isolation of strong and weak power cabling.

Cold Aisle

Consisting of horizontally expandable modular skylights, controllers, access doors and lights, which can be linked to monitoring systems and fire protection.

IN-Row AC

IN-row air conditioner is cooled by a nearby heat source, with a fully variable frequency design, efficient and energy-saving, and a cooling capacity range of 12.8-90kW.

Power Distribution

The modular UPS and power distribution cabinet with integrated design can reach a maximum IT power of 180kW, which is efficient and reliable.

Monitoring System

Modular level power and environment monitoring system + local touch screen with 3D, temperature field and capacity management support.

Applications

Single module Solution :

It is suitable for small and medium data centers with power consumption less than 180KW and an area of less than 100 square meters. For data center needs of small and medium enterprises and branch offices of large enterpris- es.

Multi-module solution:

Through the flexible arrangement of multiple modules, a large-scale data center can be constructed. For the needs of large-scale data centers in IDC, large enterprises, financial centers, governments, military, supercomputer centers, education, medical and other industries.

Features

High-efficiency

- Power supply and distribution architecture, close to heat source cooling methods, effectively reduce the module PUE value;
- Closed channels isolate hot and cold air flows, eliminate ineffective air circulation and eliminate local hot spots;
- Module integrated management, coordinated oper- ation, and effectively improves the efficiency of functional module components;

Rapid Deployment

- Standardized components, de-engineering,and overall delivery;
- Factory prefabricated and pre-commissioned, plug and play on site;
- According to business development ondemand matching, rapid expansion;

Simple and Reliable

- Productization of data center infrastructure to reduce the impact of construction technology and improve system reliability;
- Product-level factory inspection to obtain higher quality assurance;
- Strong adaptability, suitable for various onsite conditions of users;

Inteligent Management

- Integrated and integrated design of refrigeration, power distribution, dynamic circuit and cabinet;
- Standardised solutions, de-engineered;
- Accurate energy efficiency management, PUE real-time display, power consumption is clear;
- Remote cloud operation and maintenance management platform.

MetaRow Modular Data Center

Power System

- 3kVA~60kVA Rack Ups
- 60-200KVA Rack type Modular Ups
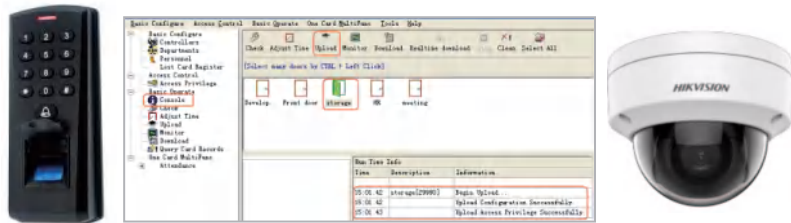- 250 -600kVA Modular UPS Floor Mount
- Basic/Smart PDU

Cooling System

- 12.5-60kW Inrow Cooling system
- 5 -200kW CRAC Cooling system
- Refrigerant Type Free Cooling Available Upon Configuration.

Security System

- 3 in 1 Access Control For Each Door.
- Centralized Software Management.
- Video Surveillance.

DCIM System

- Local &Remote Monitoring And Alert.
- Full Sensors
- Full Integration Of 3rd Party Equipment.

Modular Design

Adopting modular design concept, each unit can be installed and disassembled independently, and can be closely connected with adjacent units, which is convenient for disassembly and assembly; at the same time, it is also suitable for maintenance and management of other equipment on the channel.

Good Sealing

All unit modules in the hot and cold aisle system are connected precisely, and the parts are sealed with good sealing tops or sponge strips, which not only maintains the aesthetics, but also prevents the leakage of cold air in the cold aisle.

Light Transmission

The system is composed of toughened glass with strong light transmittance.

Structure »

Electric sliding door

- Optional access control readers such as face recognition, fingerprint, password, IC card, etc., support fire linkage, and ensure the safety of equipment inside the channel
- The electric sliding door uses 12mm frameless panoramic coated tempered glass, and the glass coverage area is more than 98%. It is also equipped with a sheet metal door cover to protect the safe operation of the end door.
- Equipped with a backup battery, the door can be opened automatically in the event of an emergency power outage to ensure the safety of people inside the channel, noble and beautiful.

Swivel sliding door

The door body is made of high-quality cold-rolled steel plate and equipped with 5mm coated tempered glass, which can directly observe the internal situation. The joints of the components are sealed with sealing strips to ensure the sealing effect, and the overall stability is generous.

Skylight

- Skylights are divided into flip skylights, fixed skylights, and flat-top skylights
- Flip skylights and flat-top skylights are equipped with 5mm coated tempered glass for lighting, with a light transmittance of 91%.
- Electromagnetic control is used to manage opening or closing. Supports fire protection system linkage
- The opening angle of the flip skylight can reach 90°, and a buffer limiter is provided to adjust the opening angle according to customer needs
- Fixed skylights are made of high-quality cold-rolled steel plates for installing environmental monitoring equipment such as temperature and humidity sensors, smoke sensors, and cameras
- The skylight adopts a modular design and is equipped with a cabinet for modular installation. The skylights are evenly connected in parallel without gaps to achieve the effect of isolating hot and cold airflows
- Optional skylight one-button reset function to automatically close the flip skylight
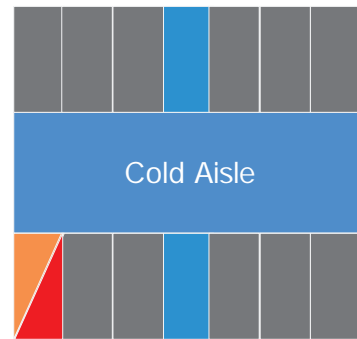
Base

The cabinet base is made of 2.0mm thick cold-rolled steel plate by bending and welding, and the load-bearing capacity is more than 2500KG.
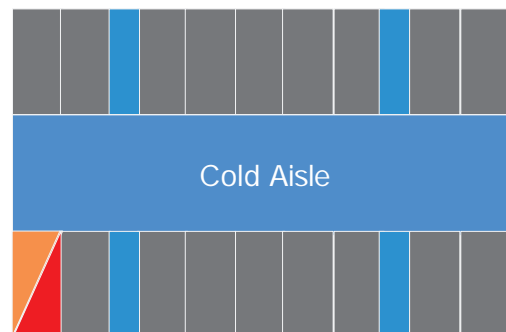
MetaRow Modular Data Center

The one-stop solution for sustainable digital efficiency and protection
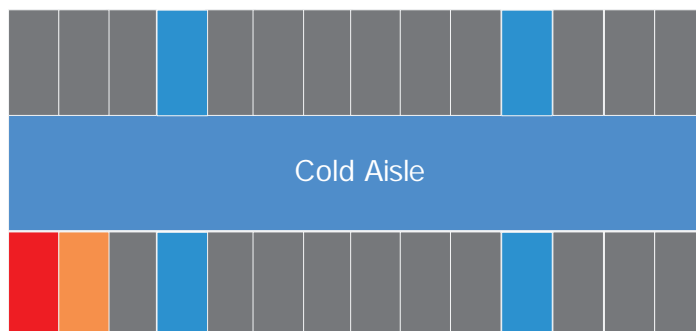
Pre-configured Models

MR-60-R12

- IT Rack:12 Sets
- IT Power:60KW
- Cooling: 2* 63.9KW
- UPS:90KVA
- Redundancy:N + 1

Cold Aisle

MR-90-R18

- IT Rack:18 Sets
- IT Power:90KW
- Cooling: 4* 31.1KW
- UPS:150KVA
- Redundancy:N + 1

Cold Aisle

MR-120-R24

- IT Rack:24 Sets
- IT Power:120KW
- Cooling: 4* 53.3KW
- UPS:150KVA
- Redundancy:N + 1

Cold Aisle

MetaRow Technical Parameter

The one-stop solution for sustainable digital efficiency and protection

380~415V/3P/50~60Hz

Product Model	MR-60-R12	MR-90-R18	MR-120-R24	Configured
IT Rack No.	12	18	24	Per Definition
Rack Power Density /Rack	5	5	5	Per Definition
Total IT Power-KW	60	90	120	Per Definition
Redundancy	N+1	N+1	N+1	T1 ~ T4
Width-mm	3600	3600	3600	Per Definition
Depth-mm	2991	2991	6058	Per Definition
Height-mm	2000	2000	2000	Per Definition
IP Level	IPX0	IPX0	IPX0	IPX0
Input Power	380-415V/3P/50-60Hz			
Power Section				
UPS -KVA	75kVA (5*15kVA)	125kVA (5*25kVA)	150kVA (6*25kVA)	3 ~ 600kVA
UPS Mount Type	Rack-Modular	Rack-Modular	Rack-Modular	Rack/Floor
Standard UPS Battery	VRLA 15min@60kW	VRLA 15min@90kW	VRLA15min@120kW	Lithium/VRLA
AC PDU	Smart/Basic PDU	Smart/Basic PDU	Smart/Basic PDU	Per Definition
-48VDC-A	Optional	Optional	Optional	10-600A
48VDC Battery	Optional	Optional	Optional	<= 4 hour
48VDC PDU	Optional	Optional	Optional	Per Definition
Cooling Section				
Cooling Type	Inrow Split DX	Inrow Split DX	Inrow Split DX	Inrow/CRAC
Mount Type	Row	Row	Row	Row/Room
Capacity-kw	2x 65.7kW	4x 31.1kW	4* 51.2kW	5 ~ 200kW
DCIM Section				
Local Display	Touch Screen			
Remote Access	Web/SMS/Email			
Reporting Protocol	Modbus/SNMP			
UPS Mgmt.	Yes	Yes	Yes	Yes
Cooling Mgmt.	Yes	Yes	Yes	Yes
Temperature & Humidity Sensor	Yes	Yes	Yes	Yes
Fire Sensor	Smoke	Smoke	Smoke	Smoke
Water Sensor	Yes	Yes	Yes	Yes
Door Sensor	Yes	Yes	Yes	Yes
Security Section				
Access Control	RFID/Pin/Finger			
Video Surveillance	Yes	Yes	Yes	Yes
Fire Fighting Section				
Fire Extinguisher	Optional	Optional	Optional	Optional
Early Detection	Optional	Optional	Optional	Optional

MetaRow Modular Data Center

Cooling Solution »

In Row Cooling

The combination of closed cold aisle system and In Row air conditioning has the following characteristics The cold air is enclosed in the cold aisle and passes through the equipment , so that the cold capacity is fully utilized; More stable air supply;Reduce ineffective air flow and reduce equipment energy consumption Appropriately increasing the supply air temperature can improve the efficiency of the unit;

Room Cooling

CYA Room-Based Air-cooled Air Conditioner provides precision temperature and humidity control for large and medium-sized data rooms. It adopts a highly efficient compressor and EC centrifugal fan to meet the requirements of 24x7 all-weather continuous operation. It is the ideal choice for green and energy-saving data centers and various electronic equipment rooms.

Rear Door Heat Exchanger

As high performance computing,machine learning,and artificial intelligence starts making its way into data center environment,traditional cooling solutions struggle with rising heat density.Rear door heat exchanger provide direct server contact without equipment modification or access limitations.It's very efficient and can easily handle the typical 20-65kW high power density of HPC racks.

Technical Parameter

In-Row Cooling »

Cool-Row Series DX Unit

Model CRA	013	025	030	040	050	060
Total Cooling KW	13.2	26.7	32.5	42.6	53.3	63.9
Sensilble Cooling KW	13.2	26.7	32.5	42.6	53.3	63.9

Cool-Row Series CW Unit

Model CRCW	030	040	050	060
Total Cooling KW	30.5	40.4	50.3	65.7
Sensilble Cooling KW	30.5	40.4	50.3	65.7

Room Cooling »

Model CYA	S26	S31	S35	S40	S45	S50	T50	T55	T61	T70	T88	T90	T100
Total Cooling KW	26.8	31.5	35.5	40.2	45.6	50.5	50.5	55.4	61.4	70.5	85.5	90.8	102
Sensilble Cooling KW	24.2	28.9	33.2	37.6	42.2	45.7	47.8	51.6	57.5	65.2	79.5	84.5	95.7

Rear Door Heat Exchanger »

Indoor Unit	S-010DA	S-020DA	S-030DA
Cooling Type	DX	DX	DX
Total Cooling KW	10	21.2	31.1
Air Volume m³/h	2400	4920	5800
Reheat kW	3	6	6

Indoor Unit	S-025DC	S-045DC	S-065DC
Cooling Type	CW	CW	CW
Water Temperature inlet/outlet°C	13/18	13/18	13/18
Total Cooling KW (37'C124% Return Air)	28.9	46	65.8
Air Volume m³/h	4800	9000	11400
Reheat kW	6	6	6

MetaRow Modular Data Center

All-in-One Intelligent Power Distribution System for data center

Product Description »

The AII-in-one intelligent power distribution system of Coolnet Digital Energy Data Center is a new generation of highly integrated power supply and distribution system adapted to modular data centers based on the new intelligent modular UPS platform. It integrates UPS host, IT power distribution, air conditioning power distribution, lighting power distribution, Mains electricity ATS, UPS input power distribution and UPS output power distribution into one cabinet, and has the characteristics of simple and easy maintenance, high reliability and high efficiency, it can provide safe, stable and pure green power supply for data center load.

Application »

It is widely used in small and medium-sized data centers, edge DCs and other scenarios without independent power distribution rooms, covering a variety of industries such as finance, government, telecommunications, education, medical care, and manufacturing.
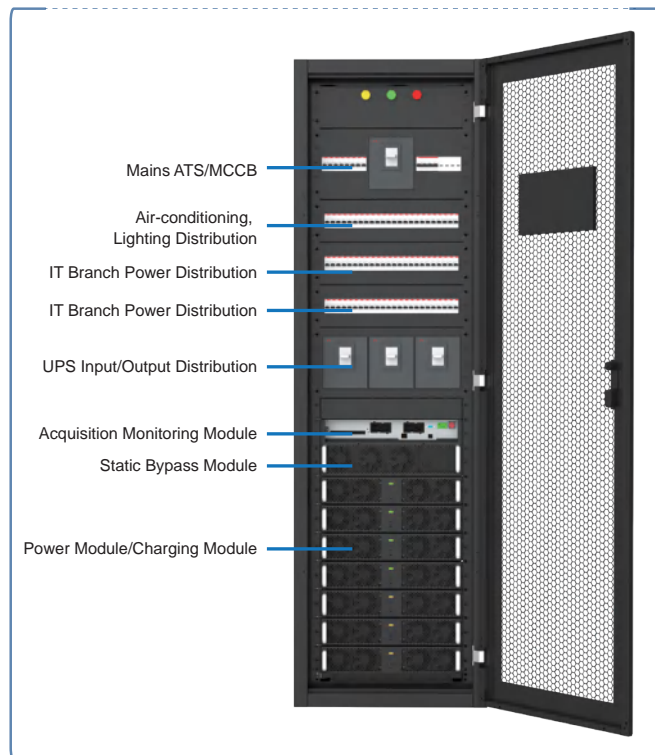
Features »

Extreme Power Density

■ The maximum support is 180kVA integrated UPS power supply and distribution, with industry-leading power density. Built-in 30kVA/30kW module, height is only 2U, system capacity supports phased deployment, power module and bypass module can be quickly replaced for easy maintenance.

■ UPS, UPS input and output cabinet, precision distribution cabinet, three cabinets in one save 68% of floor space and save more than 55% of installation time.

Green, Energy-saving and Efficient:

■ System efficiency is up to 96%, energy efficient.

Intelligent Safety Monitoring

■ Intelligent detection of power distribution branches and full display of power supply links

■ One screen, one system integrated management of power distribution, UPS and battery information.

Mains ATS/MCCB

Air-conditioning, Lighting Distribution

IT Branch Power Distribution

IT Branch Power Distribution

UPS Input/Output Distribution

Acquisition Monitoring Module

Static Bypass Module

Power Module/Charging Module

Technical Parameter

Model CNM	150/25-AIO	180/30-AIO
Input		
Rated Voltage	380/400/415Vac,50/60Hz,3ph+N+PE	
Voltage Range	304-478VAC(L-L)full load; 304-228VAC (L-L) power derate from 100% to 75%	
Frequency Range	40Hz ~70Hz	
Power Factor(PF)	Full load > 0.99, half load > 0.98	
Output		
Rated Voltage	380/400/415Vac,50/60Hz,3ph+N+PE	
Power Factor	1	
Maximum Peak Factor Of Load	3:1	
System Parameter		
System Efficiency	96%(Linear load)	
Module Average Flow Indicator	≤2%	
Wiring Method	Default top inlet and top outlet, support bottom alignment	
Ac Lightning Protection	Lightning protection class C	
Configuration Parameters		
Rated Capacity	25-150kVA Number of power modules7(6+1) . Single Module Capacity 25kVA/25kW	30-180kVA Number of power modules7(6+1), Single Module Capacity30kVA/30kW
Input Method	MCCB or ATS	MCCB or ATS
Mains Supply Of Ups Distribution	City Power: 400A+UPS:3*250A	City Power: 600A+UPS:3*400A
IT Power Distribution	32A* 24* 2	40A* 24* 2
Air Conditioning Distribution	63A*8	63A*8
Lighting Power Distribution	10A*3	10A*3
Work Environment		
Operation Temperature Range	0~40°C	
Storage Temperature	40~70°C（Battery not included）	
Relative Humidity	5~95% Non-condensing	
Altitudes	Start to refer to IEC62040-3 standard for frequency reduction above 1000m.	
IP Degree	IP20	
Noise(dB)(1 Meter)	The noise level is measured at ambient temperature of 25 degrees Celsius, at atmospheric pressure,1min front ofthe equipment, at 1/2 the height. 50%load:<52dB;100%load:<71dB	
Dimention		
W*D*H mm	600 * 1100/1200 * 2000	

MetaRow Modular Data Center

UPS Power System

Capacity Range: 20~600KVA

The CNM series modular UPS is designed for use in medium and large data centers to achieve maximum availability. This series adopts the latest three-level technology and PFC input control technology to ensure 96% high efficiency and ultra-reliability. It is an ideal choice for medium and large data centers and critical loads.

Features »

■ Fully digital control, flexible and robust.
■ 7&10 inch touch LCD,with IoT functions
■ High reliability and environment adaptability, with protection of components level
■ Intelligent system self-diagnosis, rich fault recording, large capacity of history recordstorage space
■ Maximum system capacity up to 1.8MVA, the best solution for mega data center

Power Module »

Module	Parameters	Dimensions (D*W*H mm)	Weight (kg)
SUB20K	3P/3P 20KVA/20KW	650*440*132(3U)	34
SUB30K	3P/3P 30KVA/30KW	650*440*132(3U)	34.5

Technical Parameter

UPS Power System

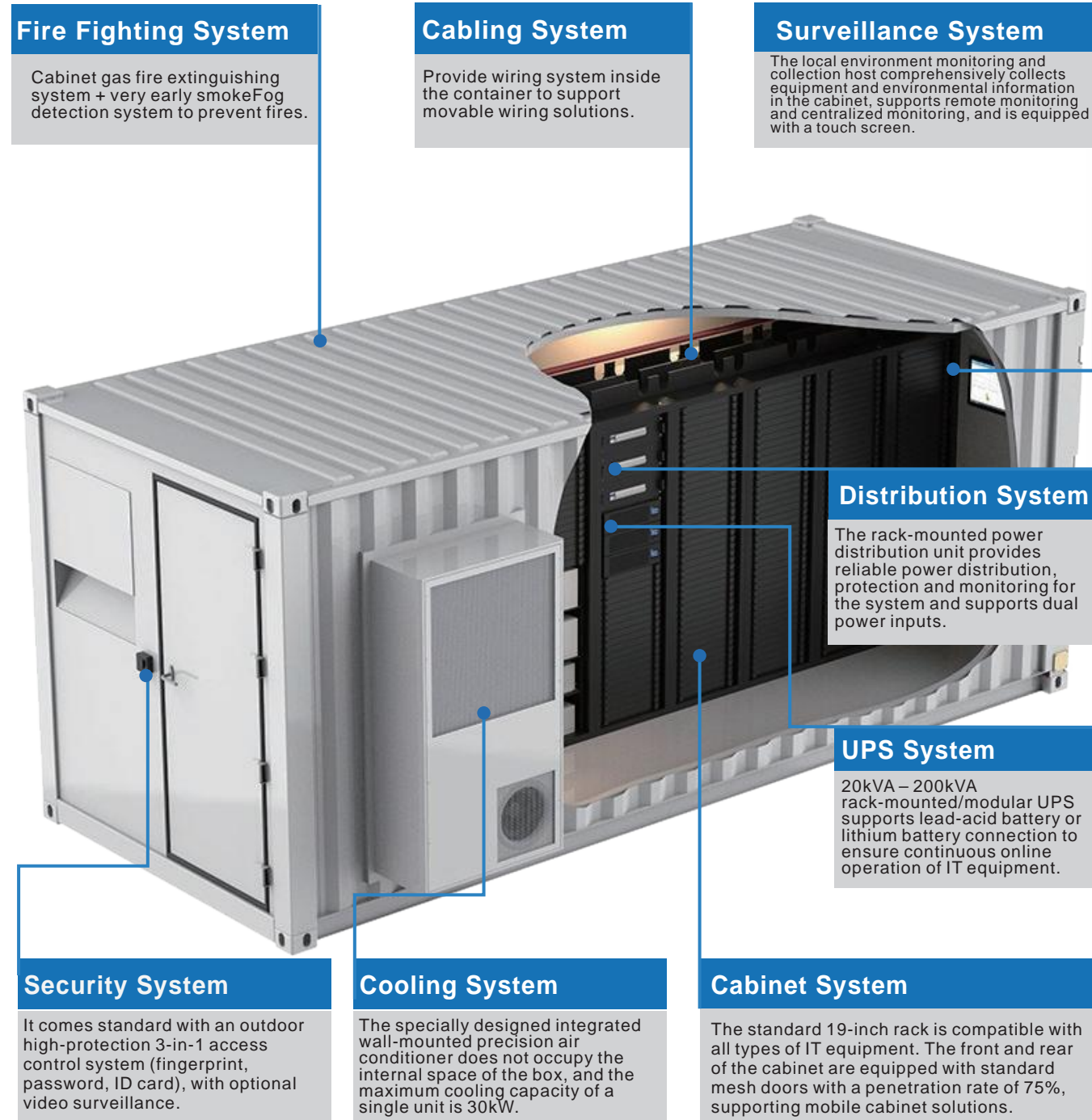| Model CNM		200/50	300/50	400/50	500/50	600/50
Rate Power		200kVA	300kVA	400kVA	500kVA	600kVA
Main Input						
Input		3P				
Rate Voltage		380/400/415Vac				
Rate Voltage		304 - 478VAC(L-L)full load; 304 - 228VAC (L-L) power derate from 100% to 75%				
Frequency Range		50/60Hz				
Input PF		>0.99				
Inverter						
Output		3P				
Rated Voltage		380/400/415Vac				
Output PF		1				
Voltage Accuracy		±1%				
Crest Factor		3:1				
Frequency		50/60Hz				
Recovery Time		<20ms (0%- 100% -0% step load)				
Overload		110%,1 hour;125%,10 mins; 150%,1 min; >150%,200ms				
THDu		<1%(linear load),<5%(non-linear load according to IEC 62040-3)				
Efficiency						
AC Mode		> 96%				
Power Modules						
Module Capacity		30KVA	50KVA	50KVA	50KVA	50KVA
Number of fully loaded modules		5	4	6	8	10
Battery						
Rate Voltage		380/400/415VAC (L-L); 220/230/240VAC(L-N)				
Voltage Range		Range:-40%-+25%,Settable,default-20%~+15%				
Environment						
Working Environment		0~40℃,0-95%RH (no condensation)				
Storage Environment		25~25℃,0-95%RH (no condensation)				
Physical Parameters						
Dimensions (W*D*H) mm	Cabinet	600x1000x1600	600x1000x2000	600x1100x2000	1200x1100x2000	
	Module	442x659x174				
Weight (kg)	Cabinet	185	248	250	578	
	Module	41				

MetaCuber Container Solution

The container-type outdoor prefabricated data center solution supports a variety of ISO standard box specifications to meet global land and sea transportation needs. The box has excellent protection capabilities and can be adapted to various outdoor application scenarios.

The container integrates racks, UPS power supply and distribution, integrated wall-mounted air conditioners, monitoring, wiring, security, fire protection, lighting and other key IT infrastructure, making it plug-and-play on-site.

Supports in-depth customization to meet the specific needs of various application scenarios.

Fire Fighting System
Cabinet gas fire extinguishing system + very early smokeFog detection system to prevent fires.

Cabling System
Provide wiring system inside the container to support movable wiring solutions.

Surveillance System
The local environment monitoring and collection host comprehensively collects equipment and environmental information in the cabinet, supports remote monitoring and centralized monitoring, and is equipped with a touch screen.

Distribution System
The rack-mounted power distribution unit provides reliable power distribution, protection and monitoring for the system and supports dual power inputs.

UPS System
20kVA – 200kVA rack-mounted/modular UPS supports lead-acid battery or lithium battery connection to ensure continuous online operation of IT equipment.

Security System
It comes standard with an outdoor high-protection 3-in-1 access control system (fingerprint, password, ID card), with optional video surveillance.

Cooling System
The specially designed integrated wall-mounted precision air conditioner does not occupy the internal space of the box, and the maximum cooling capacity of a single unit is 30kW.

Cabinet System
The standard 19-inch rack is compatible with all types of IT equipment. The front and rear of the cabinet are equipped with standard mesh doors with a penetration rate of 75%, supporting mobile cabinet solutions.

MetaCuber Container Solution

Features

High Power Density
Highly efficient integrated power supply and distribution, enclosed hot and cold aisles, leading the industry in power density and energy efficiency.

Rapid Deployment
Containerized design for easy relocation, enabling quick and agile deployment based on data requirements.

Flexible Expansion
Configurable on demand, capable of meeting enterprise data center expansion needs at any time.

Easy Site Selection
Unrestricted by climate and geographical conditions, deployable in challenging areas.

Energy Saving
Low PUE, significantly conserving power resources and reducing carbon emissions, promoting energy savings and environmental protection.

Intelligent Management
Intelligent monitoring system to enhance equipment reliability, reduce the number of maintenance personnel, minimize workload, and improve maintenance efficiency.
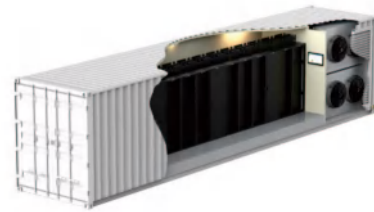
MetaCuber Container Solution

Support custom-made in various sizes

With its highly professional R&D and manufacturing capabilities, Coolnet can customize container data center for customers. Including system availability, protection capabilities, cabinet size, power supply system, cooling type and other special requirements.

20ft cabinet   40ft cabinet   Non-standard assembled cabinet

Product Parameters	ICDC20	ICDC40
Container Size	20'HQ	40'HQ
Rack Specification	600*1000*2000	600*1000*2000
Single Rack Capacity	42U	42U
Rack Quantity	4pcs	4pcs
Single Rack Max. Capacity	6KW	6KW
IT Equipment Total Capacity	24KW	48KW
UPS	25KVA*2 N+1 Modular UPS	25KVA*3 N+1 Modular UPS
Monitoring System	10 Minutes	10 Minutes
Cooling Pattern	Inrow Air Condition	Inrow Air Condition
Monitoring System	YES	YES
Door Security System	YES	YES
Fire alarm and gas fire extinguishing system	YES	YES
Video Monitoring System	YES	YES
EPO	YES	YES
Transportability	Support	Support
Stackable	Support	Support
Application	Outdoor Type	Outdoor Type
Diesel Generator Module	Extra Position	Extra Position

MetaCuber Container Solution

Cabinet System

Multi-functional cabinet developed for large, medium and small data centers. It has the advantages of sturdy structure, strong load-bearing capacity, noble and elegant and assembling structure design. Cabinet integrated three major solutions (power management solution, cable management solution, heat dissipation management solution), It can be used as a modular equipment installation infrastructure, cabinet-type power distribution cabinet, rack mounted battery box, Cabinet integrated user equipment, power distribution, UPS, battery box, and monitoring system, greatly save the equipment area in the computer room.
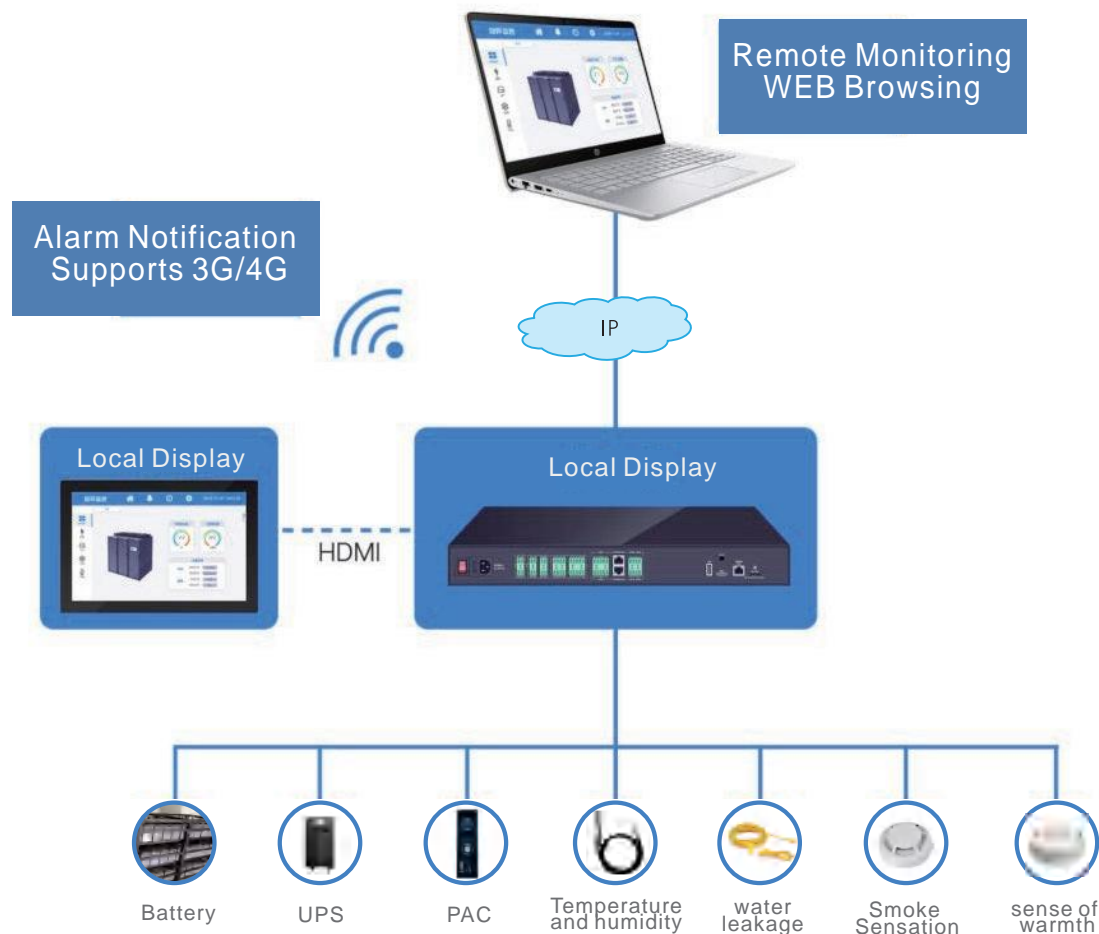

Features »

- It adopts a10-fold profile welded frame structure with high strength and a static load of 1800KG.
- The flat high-density hexagonal mesh door enhances ventilation and heat dissipation, meets the requirements for mechanical protection and external observation of equipment operating status, with a ventilation rate of 75%.
- Integrated assembly structure design, the U-pillar for equipment installation can be adjusted front and back, making it easy to install other power distribution modules, with a static load of 1800KG.

- Various sizes, width 600/800mm, depth 600~1200mm, height 42/47/52U optional.
- Rich optional accessories: PDU, blind panels, shelves, L-shaped guide rails, cable management boards, cable troughs, ventilation fans, electronic access control, ambient lights, etc.
- The surface of the cabinet is degreased, phosphated, and electrostatically sprayed to ensure that the cabinet is strong, reliable, and resistant to acid and alkali corrosion.

MetaCuber Container Solution
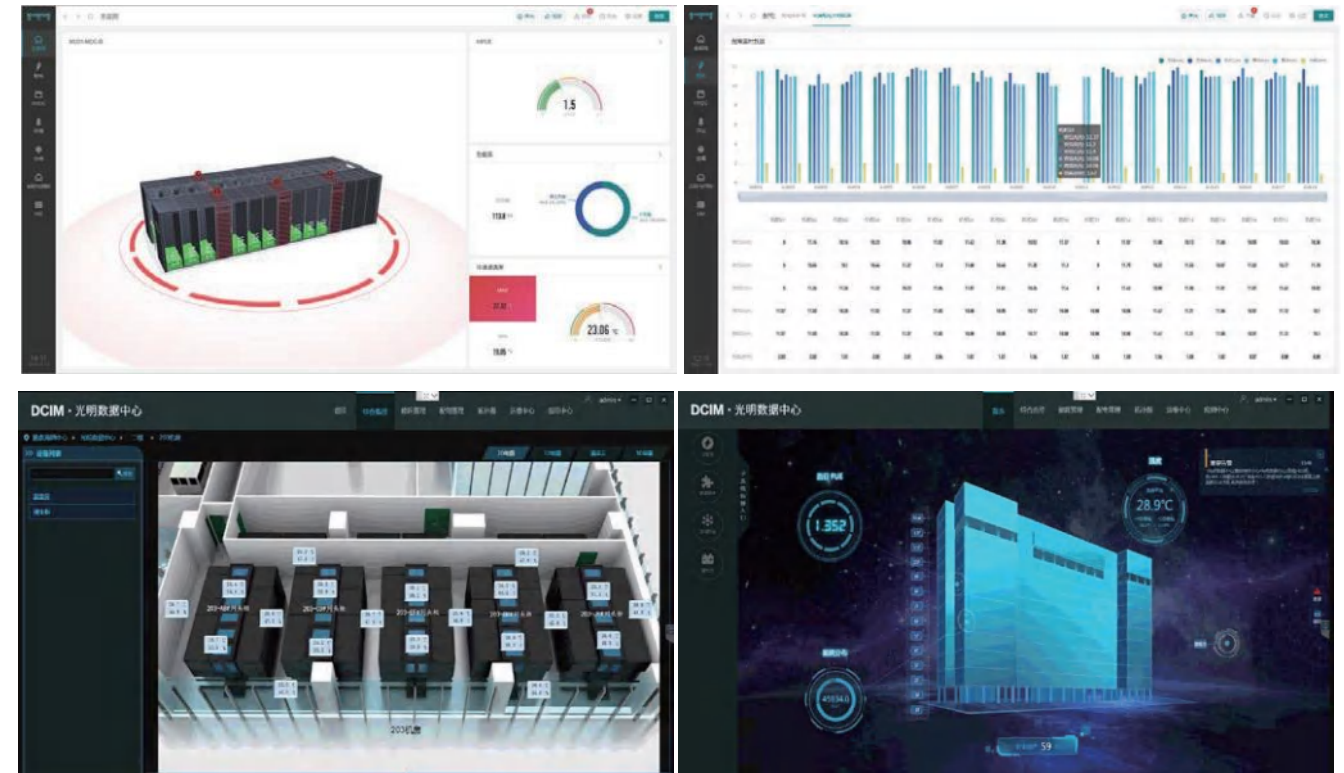
Precision Air Conditioning System

Remote Monitoring WEB Browsing

Alarm Notification Supports 3G/4G

IP

Local Display

Local Display

HDMI

| Battery | UPS | PAC | Temperature and humidity | water leakage | Smoke Sensation | sense of warmth |

Monitoring Host »

- The monitoring host uses Cortex-A8 CPU chip, 1G memory, and 8GFlash storage.

- Highly integrated monitoring software and hardware products, with high integration and rich interfaces, various monitored equipment and sensors can be installed directly through plug-in terminals, plug-and-play, and easy to construct.

- Supports dual 220V AC power supply.
- Support ZigBee wireless collection extension.

- Can support 4G wireless transmission expansion plug-in module.

- Optional SMS alarm module and phone voice alarm module are available.
- Full RJ45 interface design, unified standard, interface with power supply, simple and convenient wiring.

- The bottom hardware is photoelectrically isolated, has strong anti-interference and has lightning protection function.

MetaCuber Container Solution

DCIM Monitoring System

Features »

Centralized Monitoring

Multiple computer rooms are connected to the Internet, with centralized access to power, environment, refrigeration, security and other equipment for unified real-time monitoring;

Remote Access

Client, browser, APP, convenient for users to access the system at any time and obtain the monitoring status of the computer room at any location;

Fault Warning

Multi-level flexible threshold strategies, timely reminders before equipment failure, to minimize the occurrence of faults and alarm storms;

Alarm Notification

Multi-channel alarm notification, flexible combination of sound and light, SMS, phone and email notification, and hierarchical push notification strategy, so that stakeholders can know the fault in time;

Energy Efficiency Statistics

Supports automatic calculation and real-time display of the PUE index of the computer room, and provides energy consumption analysis data.

3D Display

It has the function of automatic slide show of 3D configuration diagram of the computer room. No mouse click is required. The software automatically plays the real-time status of each room.