



UPS, BATTERY SYSTEMS AND MODULAR
DATA CENTRE SOLUTIONS



PART 1 ADVANTAGES



KSTAR

MDC - ADVANTAGES OF INTEGRATED DATA CENTRE UNIT (IDU)

- 30 years of industry application
- Self-developed and self-produced
- One-Stop Services

Reliability



- Single Rack\Dual Racks\Multi-Racks
- Optional power distribution module\ Cooling Unit
- Flexible expansion

Flexibility



- Project productization,easy integration
- All self-developed,high compatibility
- Factory pre-integration,delivery fast

Quick Deployment

- High cooling efficiency
- High UPS efficiency
- Intelligent management, high energy-efficiency

Energy-Saving



RELIABILITY



- 5 production lines with MDC modules and precision air conditioners, the production line area is about 8000 square meters
- A full range of product testing laboratories with CNAS certification, including enthalpy, salt spray, sand dust, EMI, EMC, etc

RELIABILITY



- 19 UPS production lines, annual production capacity 3 million units
- YMK3300 series UPS , annual output 7,000 units
- In the past three years, YMK3300 series UPS has shipped a total of about 13,000 units

RELIABILITY



- Fully automated production line , annual production capacity 3 GWh
- Automatic TTP welding ,improve battery consistency
- Group, welding, voltage, current, internal resistance, capacity, life and other comprehensive advanced testing equipment

RELIABILITY



- Advanced sheet metal processing equipment, cabinets annual total production capacity 2.3 million sets

FLEXIBILITY



Single Rack



Dual Racks



Multi-Racks (3-9)

Flexible Optional Equipment

- ① rack-mounted
- ② In-row cooling
- ③ UPS
- ④ Mains power module
- ⑤ UPS power module
- ⑥ Battery pack
- ⑦ Monitoring cooling
- ⑧ Firefighting

INTELLIGENT & ENERGY SAVING



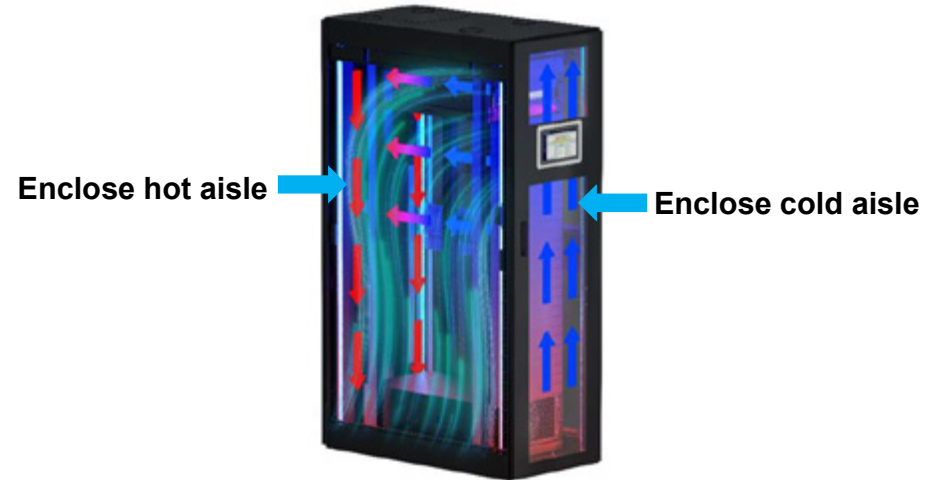
INTELLIGENT & ENERGY SAVING

Fully enclosed integrated cabinet

- Cabinet integration molding, better sealing
- Separated Hot/Cold sealed Aisle, high-usage of cooling capacity
- Compatible with In-row & rack mounted precision air-conditioner



Airflow-distribution in cabinet



QUICK DEPLOYMENT

Design, production, pre-installation,
pre-commissioning in factory



Packaging, transportation, lifting,
goods to the site



Standard fixed, installed and finished
directly on site



30 Working days

From order to delivery

< One week

Normal implementation period

**PART
2
SOLUTIONS**



KSTAR

INTEGRATED DATA CENTRE UNIT (IDU)

Seven standard systems

UPS



- Modular UPS
- 1~150kVA, optional capacity
- 19inch Rack-mounted installation

Battery



- Rack-mounted battery pack
- Battery cabinet

Power distribution



- Rack-mounted power module
- Maximum power distribution with 150kW load
- Standard mains power\UPS power and expansion power modules

Cooling

- In-Row, Rack-mounted
- 3.5~25kW
- Close to the heat source, accurate cooling



Cabinet

- Mesh Door/Sealed Door
- Depth: 1200/1400mm
- Different accessories



Firefighting

- Rack-mounted module
- FM200\NOVEC1230
- Fire control linkage



Monitoring

- Centralized monitoring system
- Realize the function of no-person on duty



APPLICATION SCENARIO



Integrated data center unit

- Small and micro data center solutions with air-cooling
- Financial industry, bank branches
- Government industry, district and county computer room
- Education industry, schools
- Communication industry, communication site
- Others, shopping mall, hospital, ect.

UPS SYSTEM



A wide range of UPS capacity options, flexible for all types of small sites, edge data sites, ICT convergence sites and other scenarios

High efficiency UPS power module, up to 96%, modular design, easy installation; power module, monitoring module and bypass module can be hot swappable

Matched with rack mounted lead-acid battery, saving installation space, safe and stable, and long service life

UPS SYSTEM



Rack-mounted single phase



Rack-mounted triple phase



Subrack modular UPS

Series	Type	Capacity	Height
MP-RT	Rack-mounted	1/2/3/6/10KVA	2U
MP-RT-Li(built-in Lithium BAT)	Rack-mounted	1/2/3kVA	2U
HPM3300-RT	Rack-mounted	15/20/30kVA 40/50kVA	3U 4U
HPM3300-Modular	Subrack	20-150kVA (10/15/20/25/30kVA 40/50kVA)	8U/13U/17U 14U

BATTERY SYSTEM



MP-RT (Built-in battery)

Series	Type	Capacity	Height	Built-in battery
MP-RT (Built-in Lead-Acid battery)	Rack-mounted	1KVA	2U	24VDC, 2Pcs 12V/9AH
	Rack-mounted	2KVA	2U	48VDC, 4Pcs 12V/9AH
	Rack-mounted	3KVA	2U	72VDC, 6Pcs 12V/9AH
MP-RT-Li (Built-in Lithium battery)	Rack-mounted	1kVA	2U	25.6VDC, 3AH/3.2V 8S3P
	Rack-mounted	2kVA	2U	76.8VDC, 3AH/3.2V 24S2P
	Rack-mounted	3kVA	2U	76.8VDC, 3AH/3.2V 24S3P

BATTERY SYSTEM

Battery Pack



◆ **MP-RT 3kVA Battery pack**

12Pcs 12V/9AH,72VDC,2 groups(2U)

◆ **MP-RT 6/10kVA Battery pack**

20Pcs 12V/9AH,±120V,1 group(3U)

◆ **HPM3320-50kVA Battery pack**

40Pcs 12V/9AH,±240V,1 group(4U)

Battery Cabinet



◆ **Mesh/sealed door:**

600mm*1200mm*2000mm

◆ **36Pcs 100AH/12V**

BATTERY SYSTEM

FM Series



Capacity:1.2AH~28AH

Float charging design life:5 years

Application:small capacity UPS,1-40kVA



Capacity:33AH~250AH,with Leakproof tray

Float charging design life:12 years

Application:High-power UPS

FMH Series



Capacity: 50AH -150AH

Float charging design life:12 years

Application:Cabinet

POWER SYSTEM



Power cabinet

Power distribution module



Integrated power module
Standard matching 3-10kVA UPS

Standard, Modular, Pre-fabricated



Mains power module
Maximal matching 120kVA UPS

Redundancy designing with high quality
breakers



UPS power module
Maximal matching 120kVA UPS

Real-time Monitoring, Intelligent electricity
meter, Flexible match

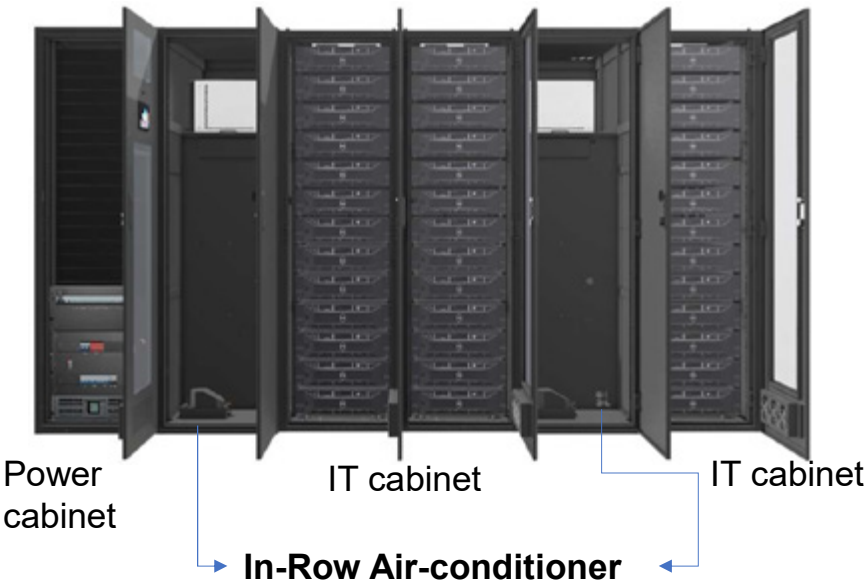
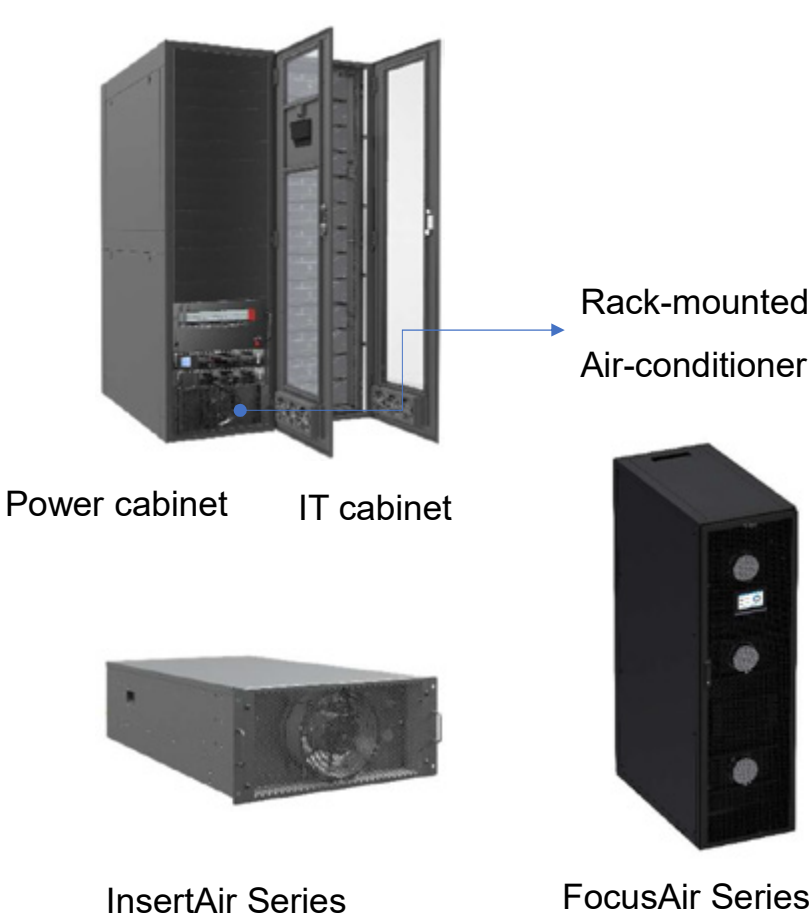


Expansion power module

POWER SYSTEM

Power Distribution Module			
Integrated power module	Mains power module	UPS power module	Expansion power module
	 	 	 
4U Matching 3-10kVA UPS	4U/8U Matching 10-120kVA UPS	4U/8U Matching 10-120kVA UPS	4U 8/12/6/20 Outputs

COOLING SYSTEM



Series	Type	Capacity	Dimension	Certification
IS	Rack-mounted (Integrated)	3.5KW	Height 8U	/
IS	Rack-mounted (Separated)	3.5/7/12.5KW	Height 5U/7U/10U	CE(7kW)
FS	In-Row	7.5/12.5KW 25.5KW	Width: 300(600)mm Depth: 1200/1400mm Height: 2000mm	CE

COOLING SYSTEM



InsertAir Series
Rack-mounted Air-conditioner

Integrated

Cooling capacity: 3.5kW, without outdoor unit



Separated

Cooling capacity: 3.5kW/7kW/12.5kW, with outdoor unit

COOLING SYSTEM



FocusAir Series In-Row Air-conditioner

Cooling capacity
7.5KW/12.5KW/25.5KW

EC fan adjusts the air output according to load changes automatically

High efficiency variable frequency compressor, flexible output precisely to match heat load changes

Electronic expansion valve, strong adaptability, energy saving effect in cold areas

Variable frequency outdoor fan, reliable operation, energy saving, low noise

Optional fluorine pump, make full use of natural cold source, reduce compressor power consumption

CABINET SYSTEM



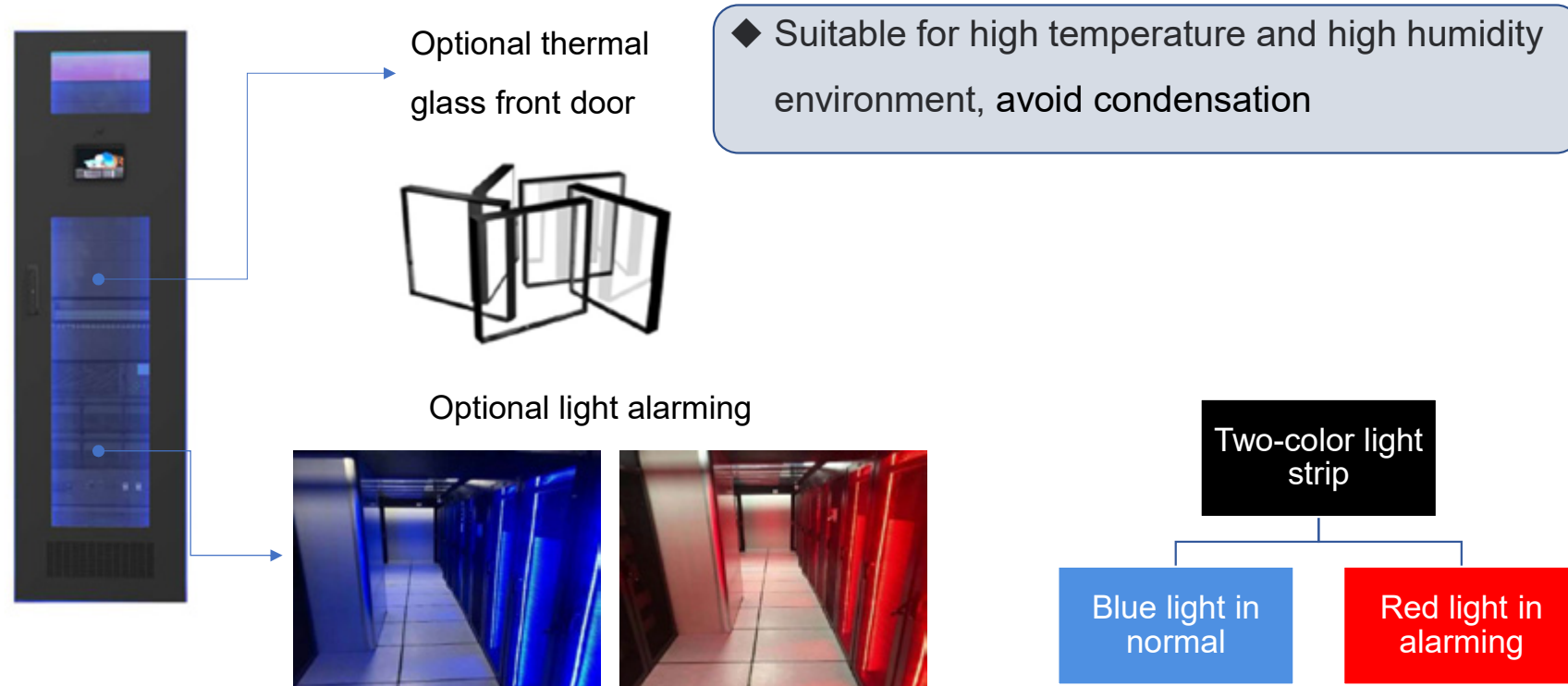
Mesh door cabinet



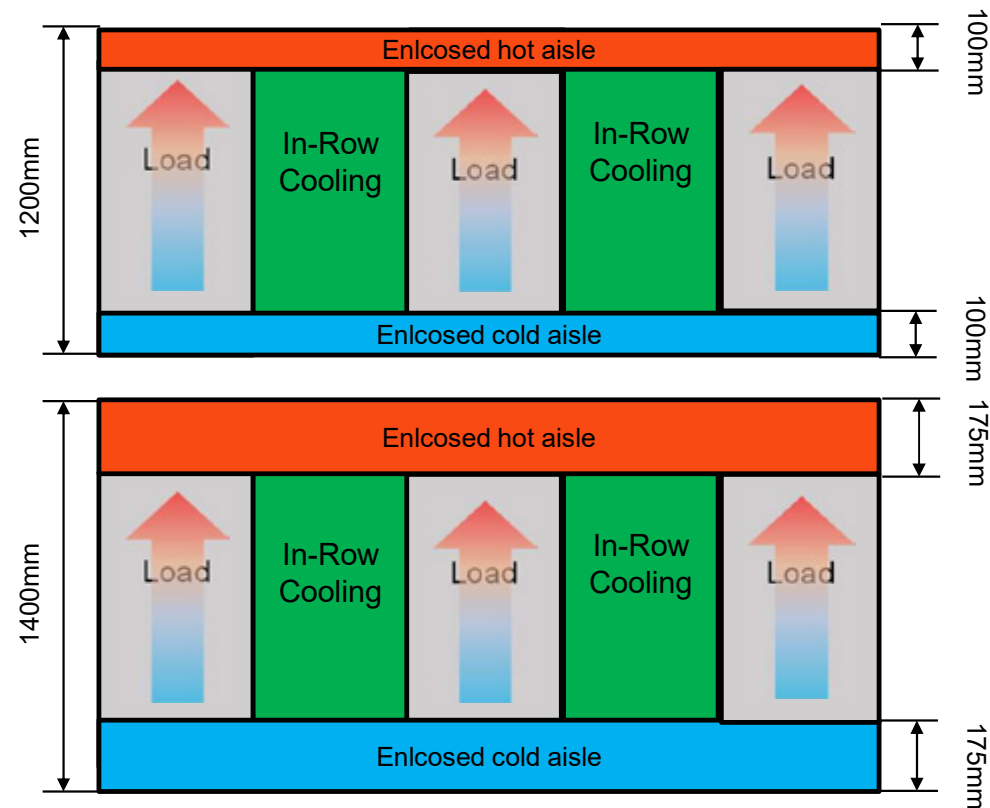
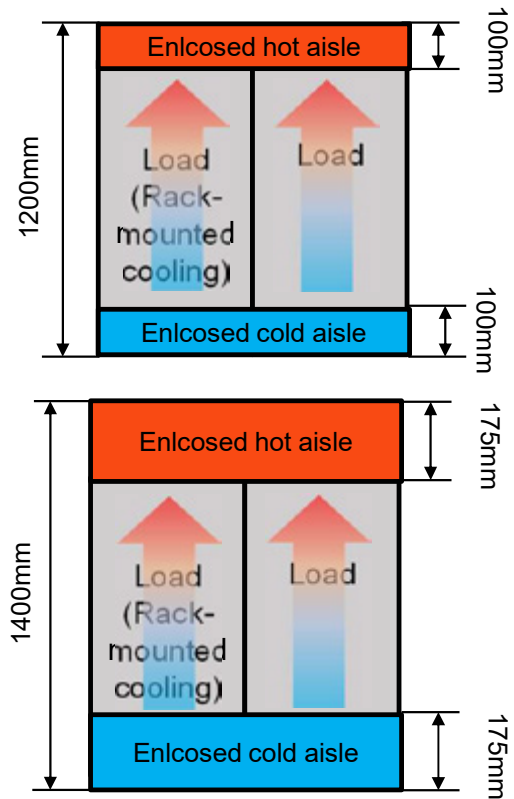
Sealed door cabinet

Cabinet System	
Dimension	600(W)*1200(D)*42U(H) 600(W)*1400(D)*42U(H)
	800(W)*1200(D)*42U(H) 800(W)*1400(D)*42U(H)
Accessories	PDU\Cable management slot\Tray\L-shaped supporter\Blank panel

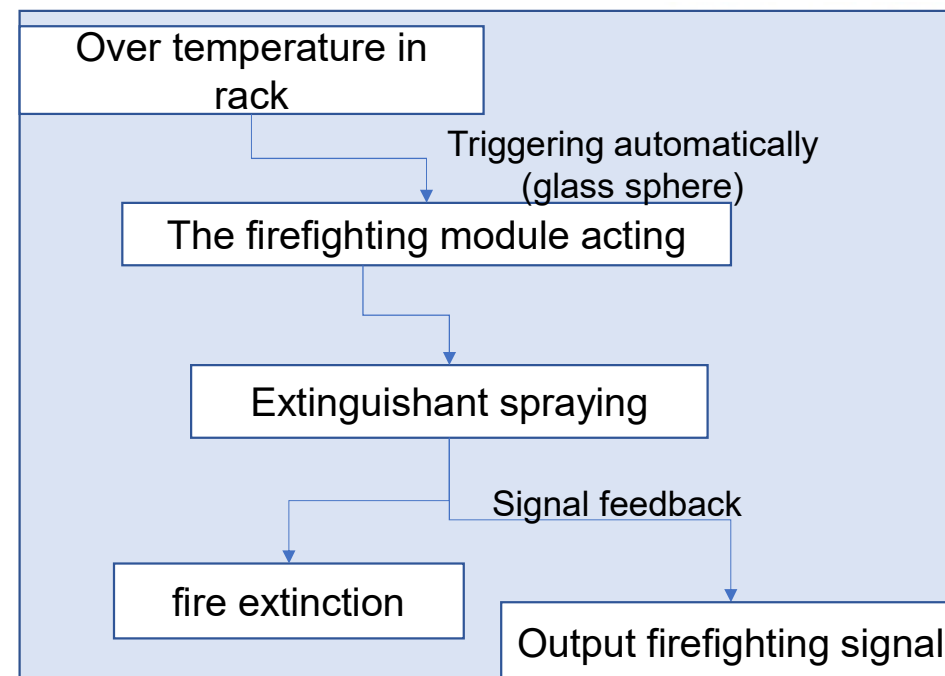
CABINET SYSTEM



ENCLOSED COLD/HOT AISLE



FIREFIGHTING SYSTEM



- Integrated fire detection and fire extinction
- Temperature & smoke detecting system, alarming temperature threshold can be setting customized
- Extinguishant spraying in 10s, outfire quickly
- The firefighting signal will be transmit to the monitoring system on time

FIREFIGHTING SYSTEM

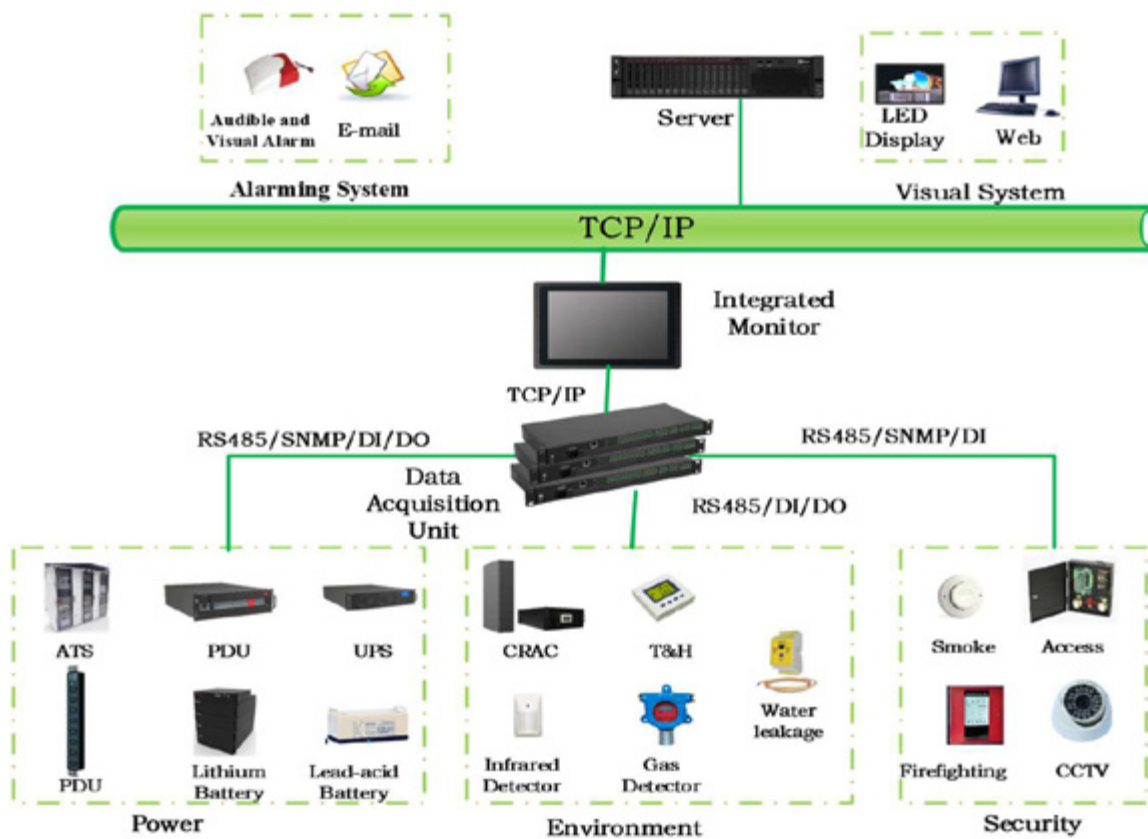


Pop-Up door system interwork with the monitoring system, while the T&H sensor detect high temperature over settled threshold before, the monitoring system will send the signal to the Pop-Up door system, controlling the states of sealed door.

Pop-Up door

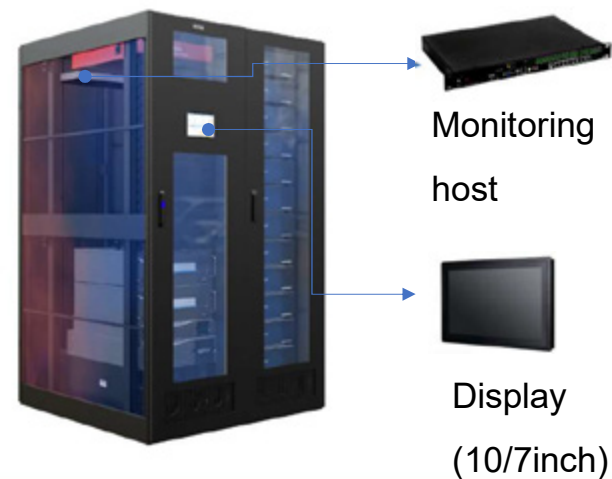


MONITORING SYSTEM



IDU Monitoring Topology Diagram

- ◆ Monitoring hosts are centrally monitored the power distribution module, UPS, cooling unit, environment (temperature/humidity), access control, CCTV, etc.
- ◆ Free northbound interface, all equipment operating conditions presenting in local display, or in remote monitoring platform.



ACCESSORIES



Low-temp kit

- ◆ Used for $\geq -40^{\circ}\text{C}$ Outdoor temperature



Copper pipe extension kit

- ◆ Length of connecting pipe for indoor and external unit $\geq 30\text{m}$, or Height of positive drop $\geq 10\text{m}$



Pop-Up door unit



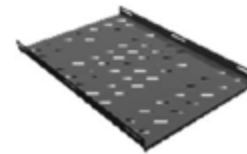
Thermal glass front door



Face recognition access controller



Camera



Tray

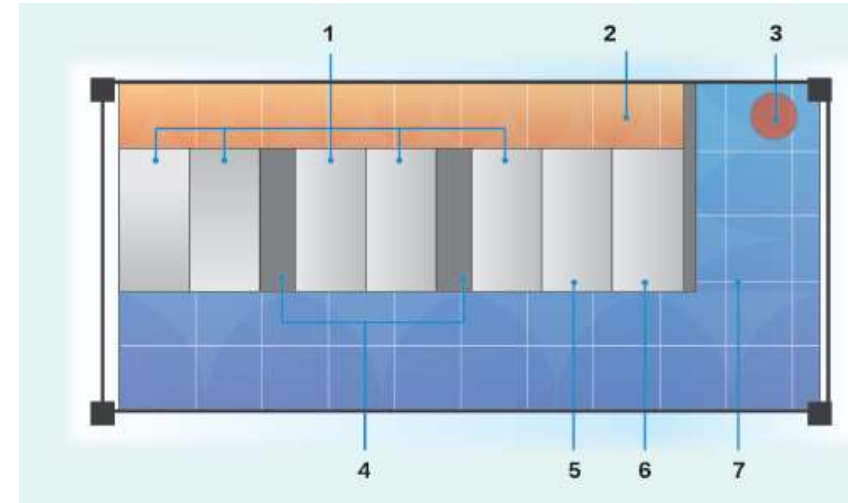
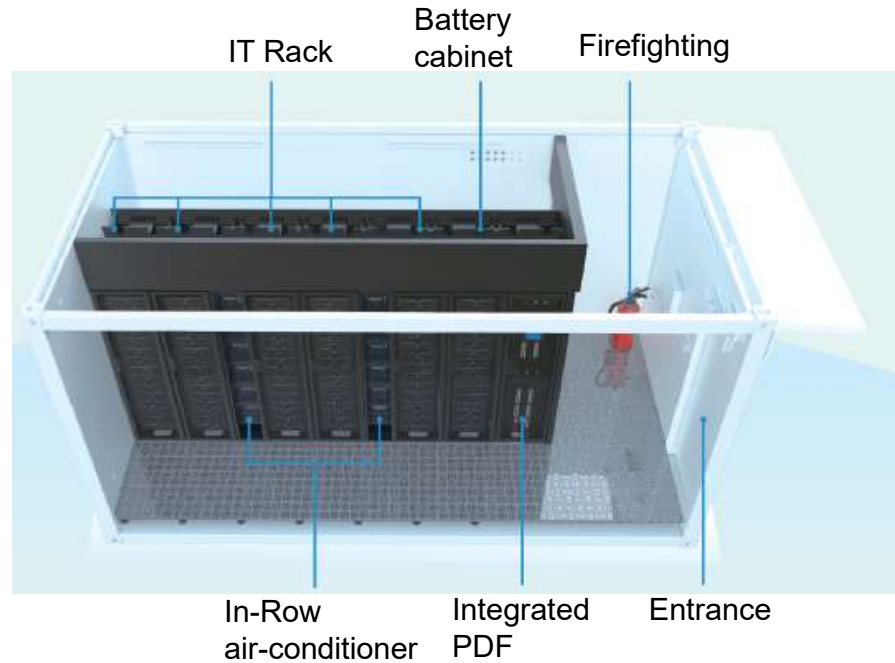


Cable management slot

CONTAINER DATA CENTRE SOLUTION - IDB



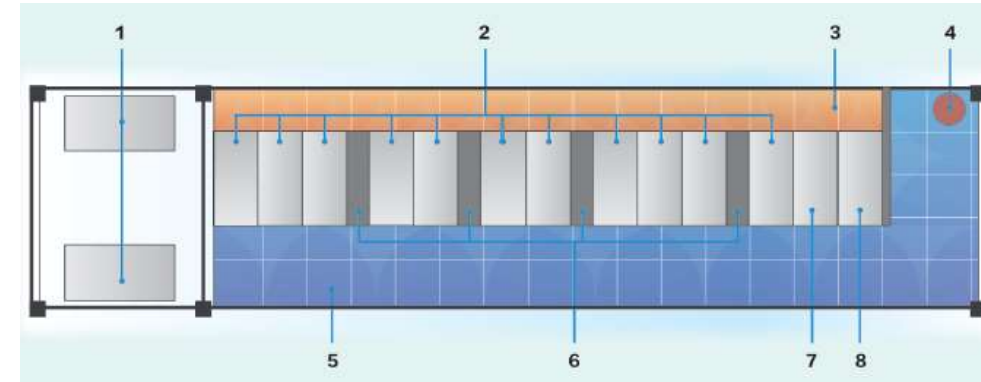
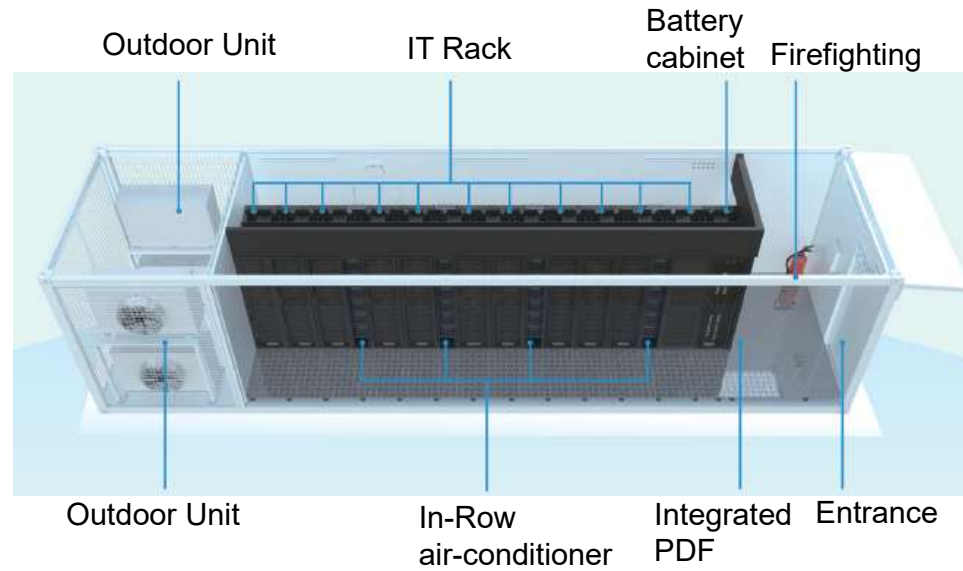
CONTAINER DATA CENTRE SOLUTION - 20FT IDB



- ① IT Rack
- ② Sealed hot aisle
- ③ Firefighting
- ④ In-Row air-conditioner
- ⑤ Battery cabinet
- ⑥ Integrated PDF
- ⑦ Sealed cold aisle

- Dimensions(mm):6058W×3100D×2896H (20FT)
- Maximal **8Pcs Racks**(Width 600mm)
- Reserve pipe ports and feeder windows

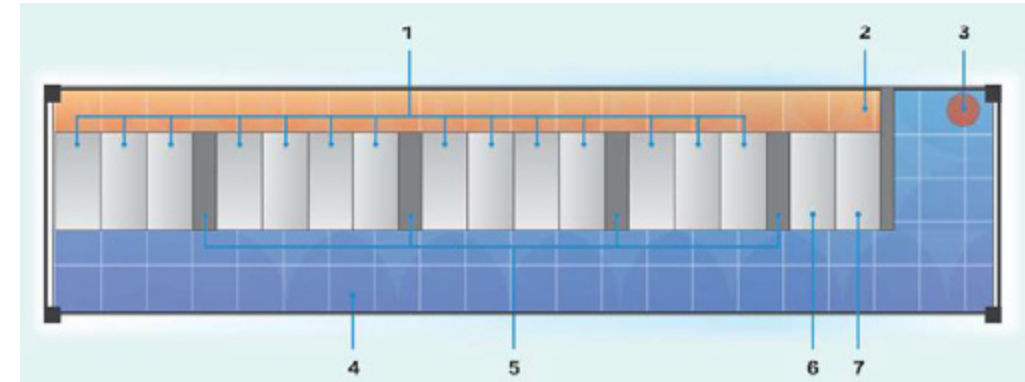
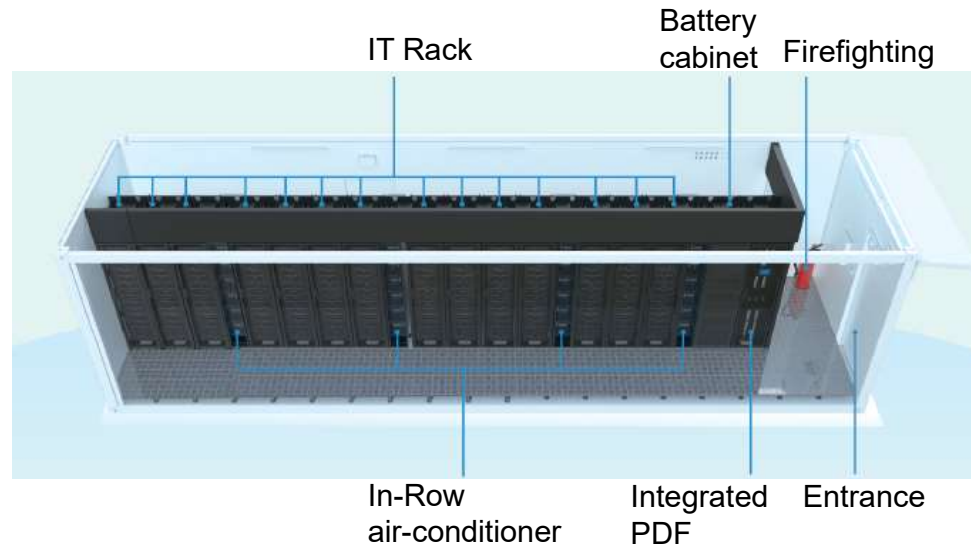
CONTAINER DATA CENTRE SOLUTION - 40FT IDB-A



- | | | |
|-------------------|--------------------------|------------------|
| ①Outdoor Unit | ④ Firefighting | ⑦Battery cabinet |
| ② IT Rack | ⑤ Sealed cold aisle | ⑧Integrated PDF |
| ③Sealed hot aisle | ⑥ In-Row air-conditioner | |

- Dimensions(mm):12192W×3100D×2896H (40FT)
- Maximal **14Pcs Racks**(Width 600mm)
- Reserve pipe ports and feeder windows

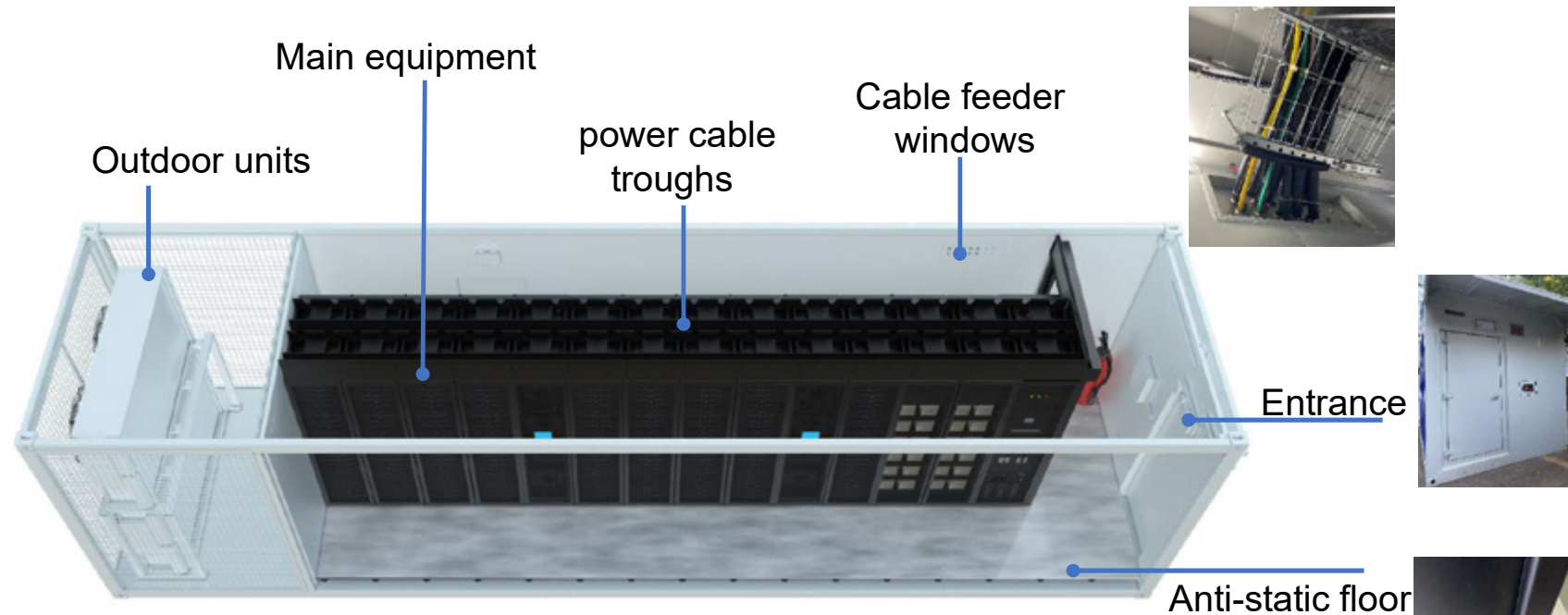
CONTAINER DATA CENTRE SOLUTION - 40FT IDB-B



- ① IT Rack
- ② Sealed hot aisle
- ③ Firefighting
- ④ Sealed cold aisle
- ⑤ In-Row air-conditioner
- ⑥ Battery cabinet
- ⑦ Integrated PDF

- Dimensions(mm):12192W×3100D×2896H (40FT)
- Maximal **17Pcs Racks**(Width 600mm)
- Reserve pipe ports and feeder windows

LAYOUT IN IDB

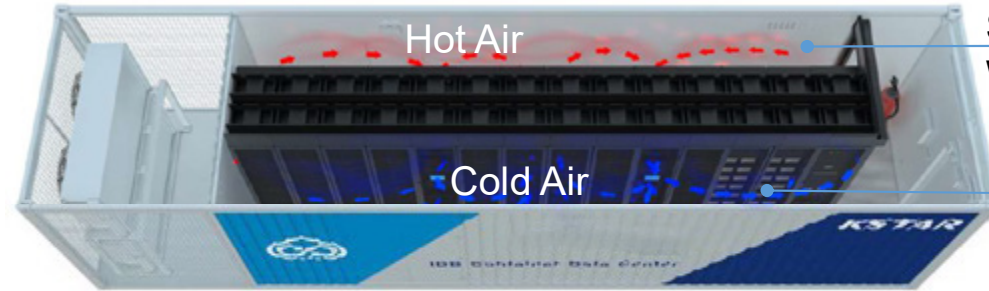


- ◆ Inlet and outlet interfaces and air conditioning pipeline interfaces are reserved; Anti-static floor is installed inside
- ◆ The protection class of the box is IP55, with moisture-proof, salt spray proof (600-hour salt spray test), anti-mold

AIR FLOW DISTRIBUTION IN IDB

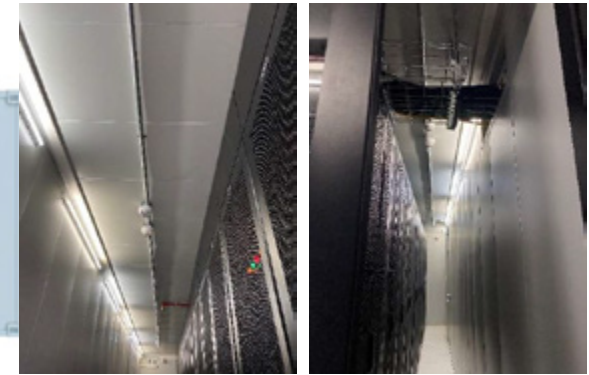


In-Row
Air-conditioner



Sealed hot aisle
Width 600mm

Sealed cold aisle
Width 1200mm

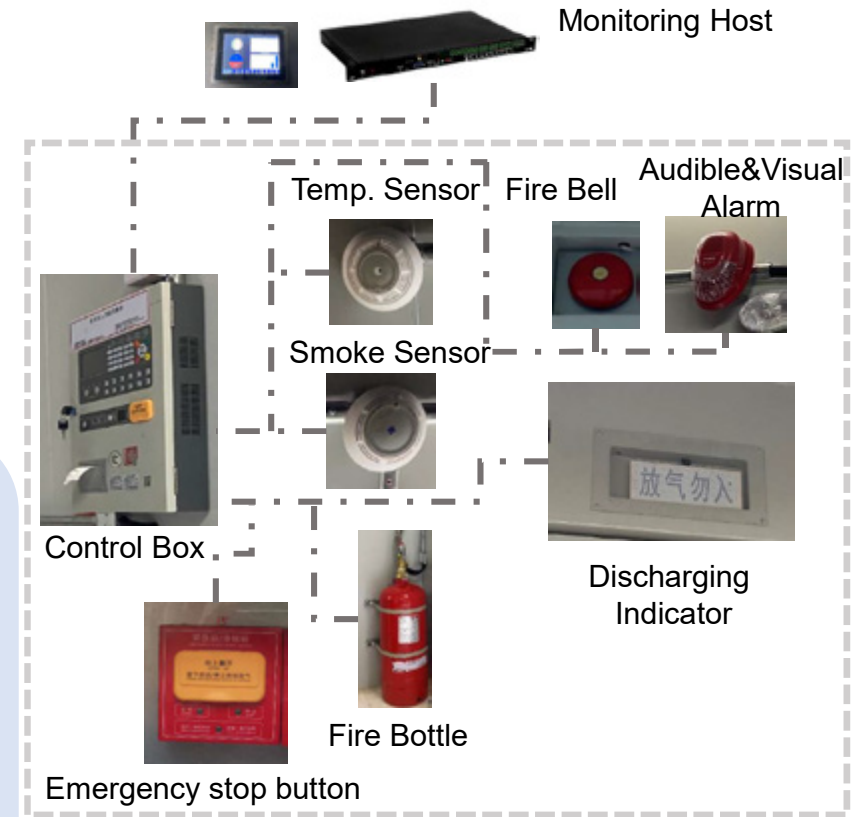


- ◆ Forward air supply, back air return, cold/hot aisle isolation
- ◆ Uniform temperature and wind pressure in the closed passage to avoid local hot spots
- ◆ Close to the heat source of the cabinet, accurate air supply, reduce the loss of cooling capacity, improve the utilization rate of cooling capacity, energy saving and consumption reduction

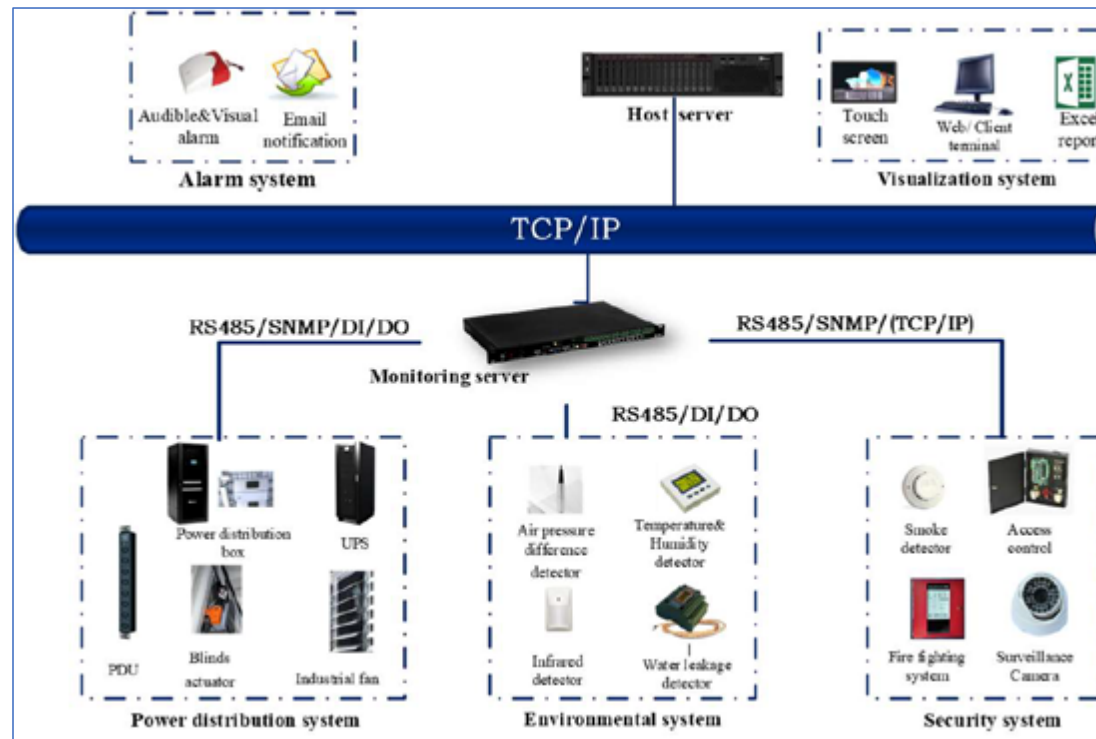
FIREFIGHTING SYSTEM IN IDB



- ◆ Automatic fire extinguishing system is adopted. Fire extinguishing pipes\ fire sprinklers installed in the cold/hot aisles in the container
- ◆ Equipped with smoke and temperature sensors, fire alarm bell, sound and light alarm, and fire control controller, fire bottles.
- ◆ Emergency stop button, manual/automatic switch, audible and visual alarm, fire alarm bell, air discharge indicator, and fire extinguishing indicator are installed on the outside of the container.



MONITORING SYSTEM IN IDB



- Integrated monitoring system, including power system, cooling system, firefighting system, lighting, etc
- Supporting multiple alarm ways, such as Email, Audible&Visual
- Free northbound interface, supporting operate with the third-party platform, remote monitoring
- Integrated access control system、 CCTV

OUTDOOR UNIT INSTALLATION



In the
container

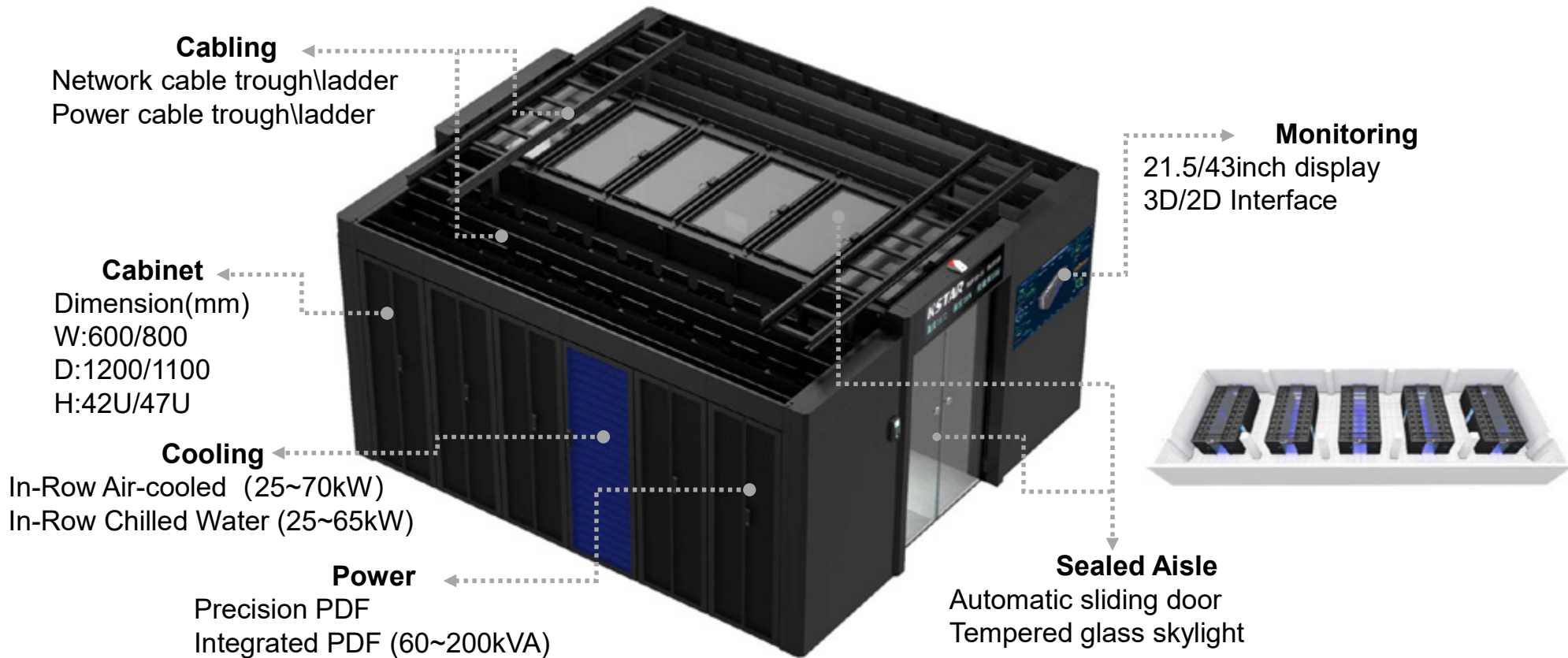


On top of the container

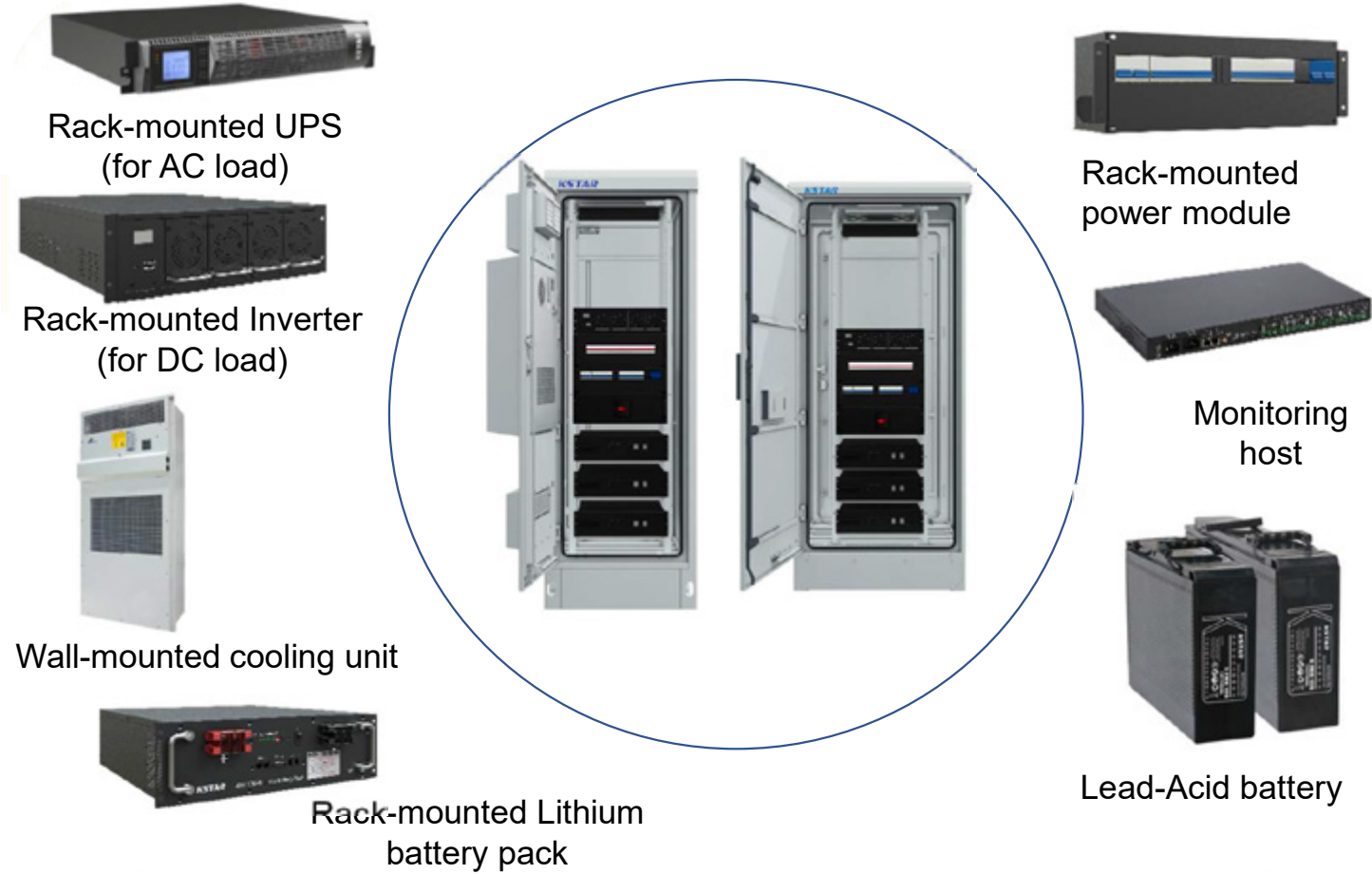


On the
ground

INTEGRATED DATA CENTRE MODULE (IDM)



INTEGRATED OUTDOOR UNIT (IOU)



PART

3

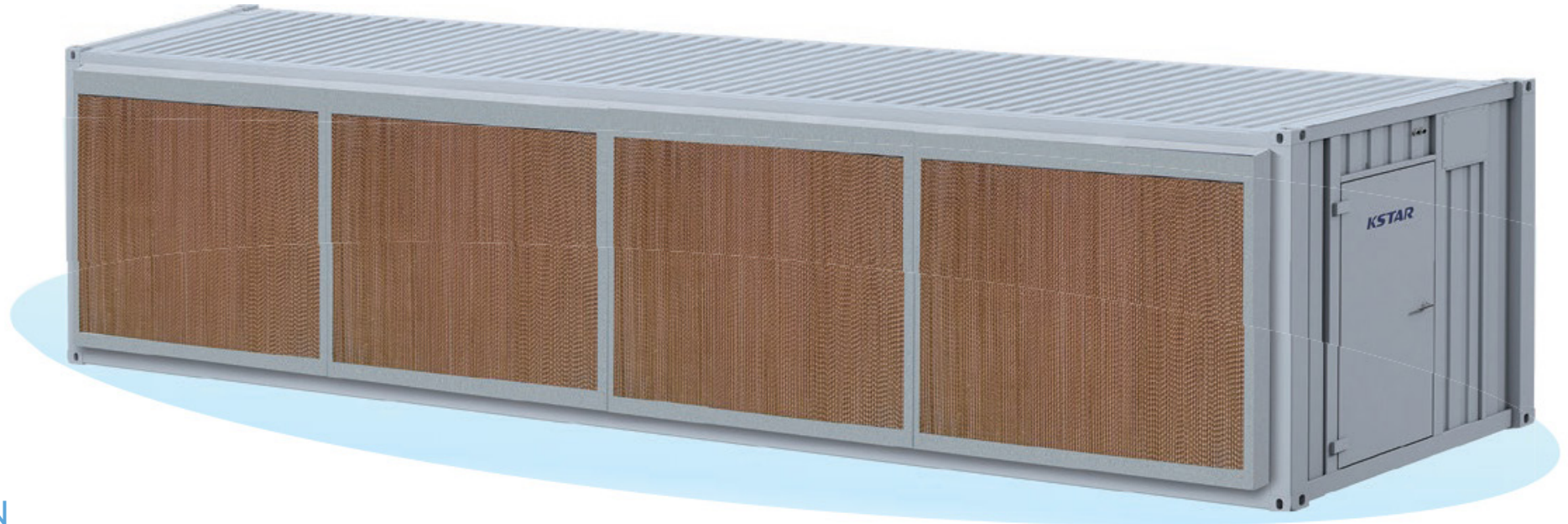
**DATA CENTRE
INFRASTRUCTURE
SOLUTIONS**

- CUSTOMISED RACK SYSTEM
- MODULAR DESIGN
- FLEXIBLE EXPANSION



KSTAR

IDB DATA FORTRESS SOLUTION



INTRODUCTION

DATA FORTRESS is a container data center infrastructure solution that responds to high computing power and low PUE requirements. It has unique advantages for high computing performance cluster equipment with strong environmental tolerance. The box integrates power distribution, cooling, rack, monitoring, and fire protection systems, and is prefabricated in the factory to achieve rapid deployment and complete new data center construction or capacity expansion in a short time.

APPLICATION SCENARIOS



HPC
(High Performance Computing)



Block-chain computing

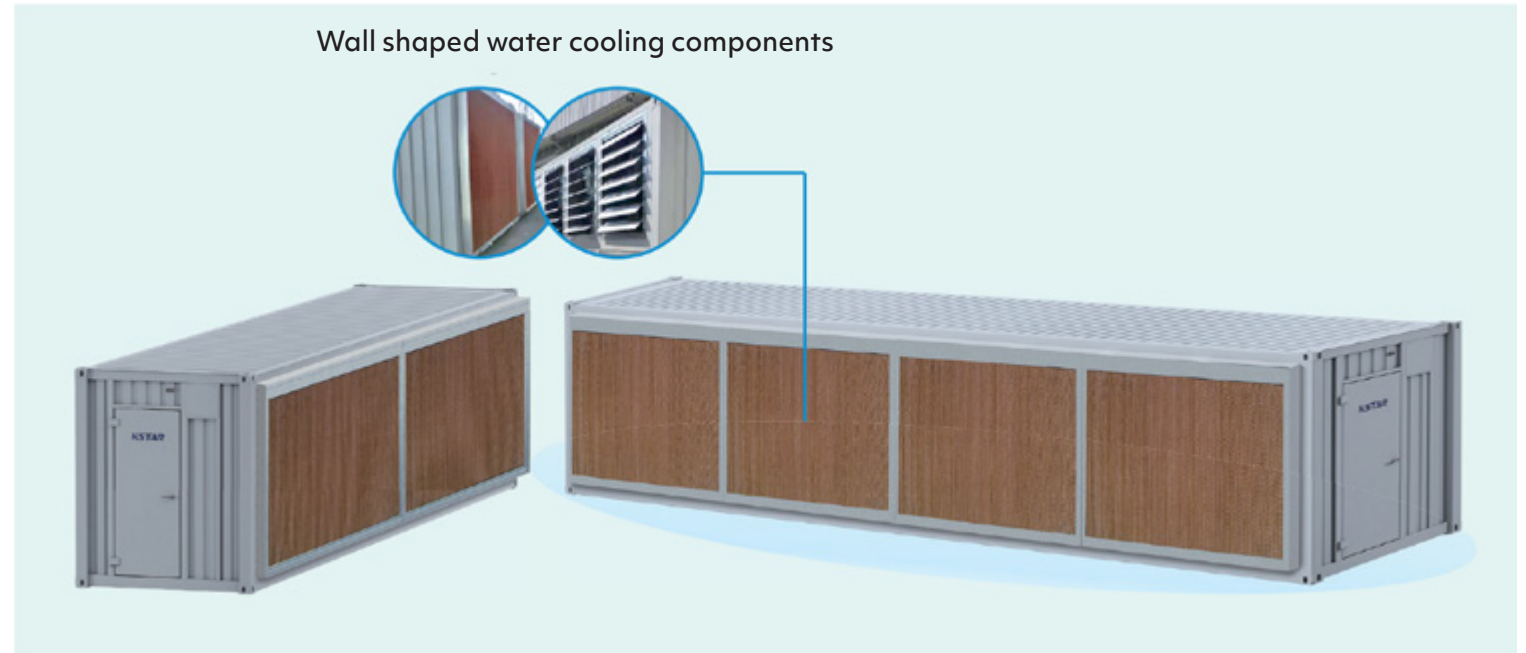


Edge computing

PRODUCT SPECIFICATIONS

CONTAINER STRUCTURE

- The blinds on both sides are designed to be automatically controlled according to the inside/outside environment (temperature and humidity), and the cabinet has an outdoor protection level of IPX4.
- The cabinet has a reserved wire-feeding window, independent optical fiber inlet holes, pre-assembled circuit routing inside the cabinet, and strong and weak current separation.
- Mesh panels and rain shields are distributed on the hot air outlet side to prevent rodents, insects, and rain.



PRODUCT SPECIFICATIONS

NATURAL AIR COOLING, HIGH EFFICIENCY AND ENERGY SAVING

- The natural cold air enters the sealed cold aisle through the wall shaped air filter, and after heat exchange with the equipment, the hot air flows out of the cabinet through the back plate mesh to achieve cold and heat exchange, and the system PUE value can be reduced to less than 1.05.
- Removable wall shaped air filter, which can be reused after cleaning, saving cost and convenient maintenance.
- Support installation of wall shaped water cooling as optional kit.
- Support installation of submerged liquid-cooling system as optional kit.



Wall shaped water cooling



Automatically controlled blinds

PRODUCT SPECIFICATIONS

LARGE LOADING CAPACITY, PRECISION POWER DISTRIBUTION

- The power distribution capacity of a single cabinet can be up to 1.5MW. The power distribution unit is assembled as a modular, which is convenient to apply and flexible when expansion needed.
- Employed with smart power distribution boxes and smart PDUs, it can detect the operating parameters of the power
- distribution system such as voltage and current in real time.



Rack-mounted PDU



Smart power cabinet

INTELLIGENT MONITORING SYSTEM

- Integrated intelligent access control system, video system, infrared detection, temperature and humidity detection, water leakage detection, internal and external air pressure difference detection (used for filter clogging monitoring), smoke detection and fire alarm, sound and light alarm and other monitoring equipment, which can monitor the internal environment in real time.
- Able to remotely control the blinds (on/off, opening & closing angle) either manually or automatically based on the data, temperature, humidity, water leakage, fire alarm, etc... obtained in the monitoring system.



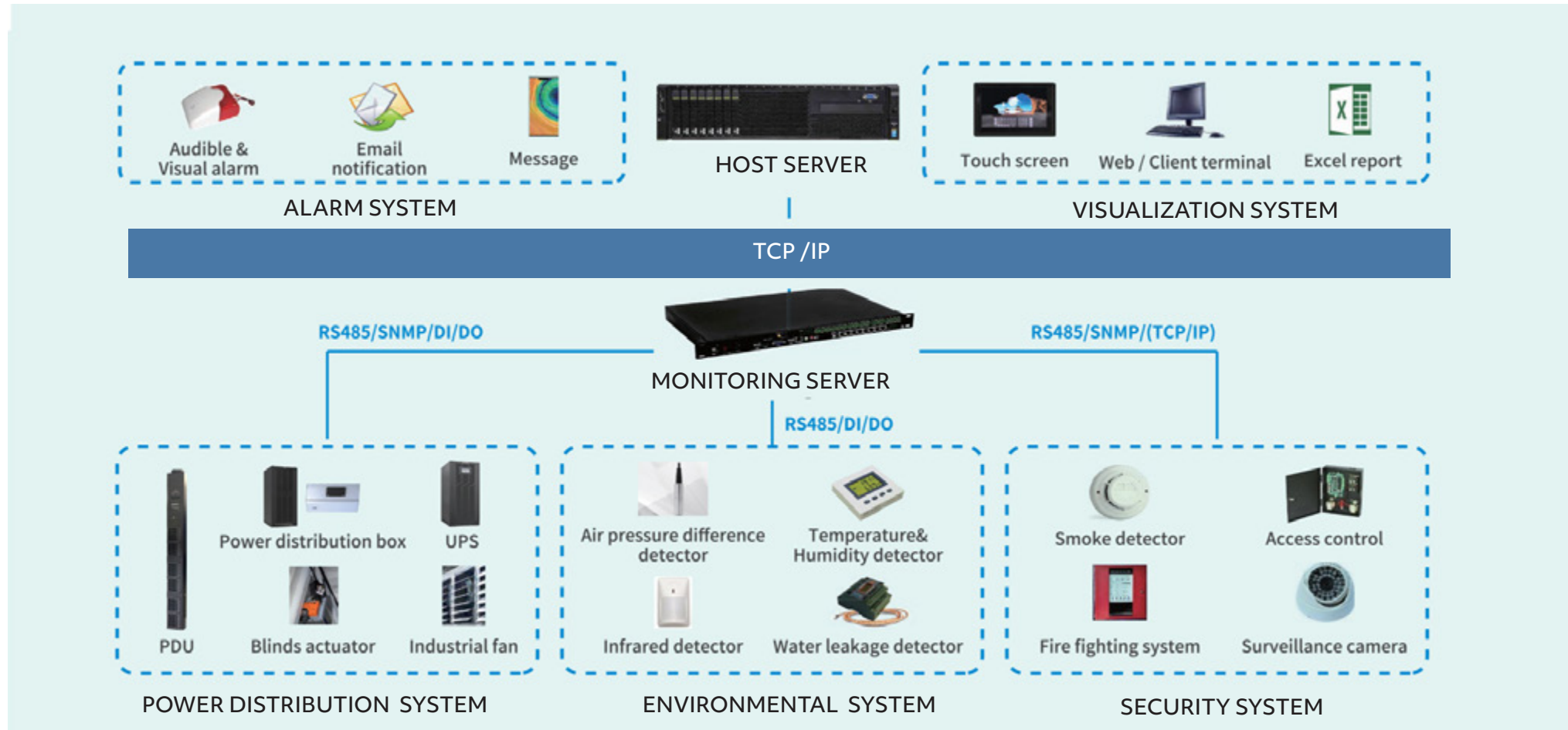
INTELLIGENT MONITORING SYSTEM

- The power supply link is monitored throughout the whole process, and the power status and energy consumption output of each device can be directly obtained, so that power supply demand can be adjusted in time.
- Accurate energy consumption calculation, real-time display of PUE value.
- Able to achieve multi-site unified monitoring and management, remote access to the management platform enables 24x7 hours unattended operation, in order to minimize operation and maintenance costs.



INTELLIGENT MONITORING SYSTEM

MONITOR SYSTEM TOPOLOGY



CUSTOMIZED RACK SYSTEM

- For various types of HPC cluster equipment, customized processing can be performed according to its power density and occupied space.

MODULAR DESIGN, FLEXIBLE EXPANSION

- The cabinet integrates power distribution system, heat dissipation system, monitoring system, and fire fighting system, which simplifies on-site engineering installation and shortens delivery time.
- Multi-site modular deployment enables rapid expansion.



Customized rack

TECHNICAL PARAMETERS

CONTAINER SIZE		40FT	20FT
{LXWXH}mm		12192 X 2438(3000) X 2896(3500)	6096 X 2438(3000) X 2896(3500)
Rack system		Customized rack(Liquid cooling pool)	
POWER DISTRIBUTION SYSTEM			
Total power distribution capacity {kW)		Up to 1500	
Power distribution architecture		Single/Dual mains power supply, integrated power cabinet/PDU	
Uninterruptible power		UP S/HVDC+ battery	
COOLING SYSTEM			
Cooling method		Naturally cooled by air (Submerged liquid cooling)	
Hot and cold aisle		Cold aisle/hot aisle isolation (Liquid cooling pool)	
SURVEILLANCE SYSTEM			
Monitoring and management		The monitoring host can realize the monitoring of internal power distribution, environment, access control, video, blinds, fire protection, etc., support sound and light, email alarm methods, and support remote monitoring	

TECHNICAL PARAMETERS

Environmental monitoring	Integrate intelligent access control system, video system, infrared detection, temperature and humidity detection, water leakage detection, internal and external air pressure difference detection (used for filter blockage alarm), smoke detection and fire alarm, sound and light alarm and other monitoring equipment to monitor the internal environment in real time
Access control system	Support IC card+ password+ fingerprint three-in-one access control system, facial recognition optional

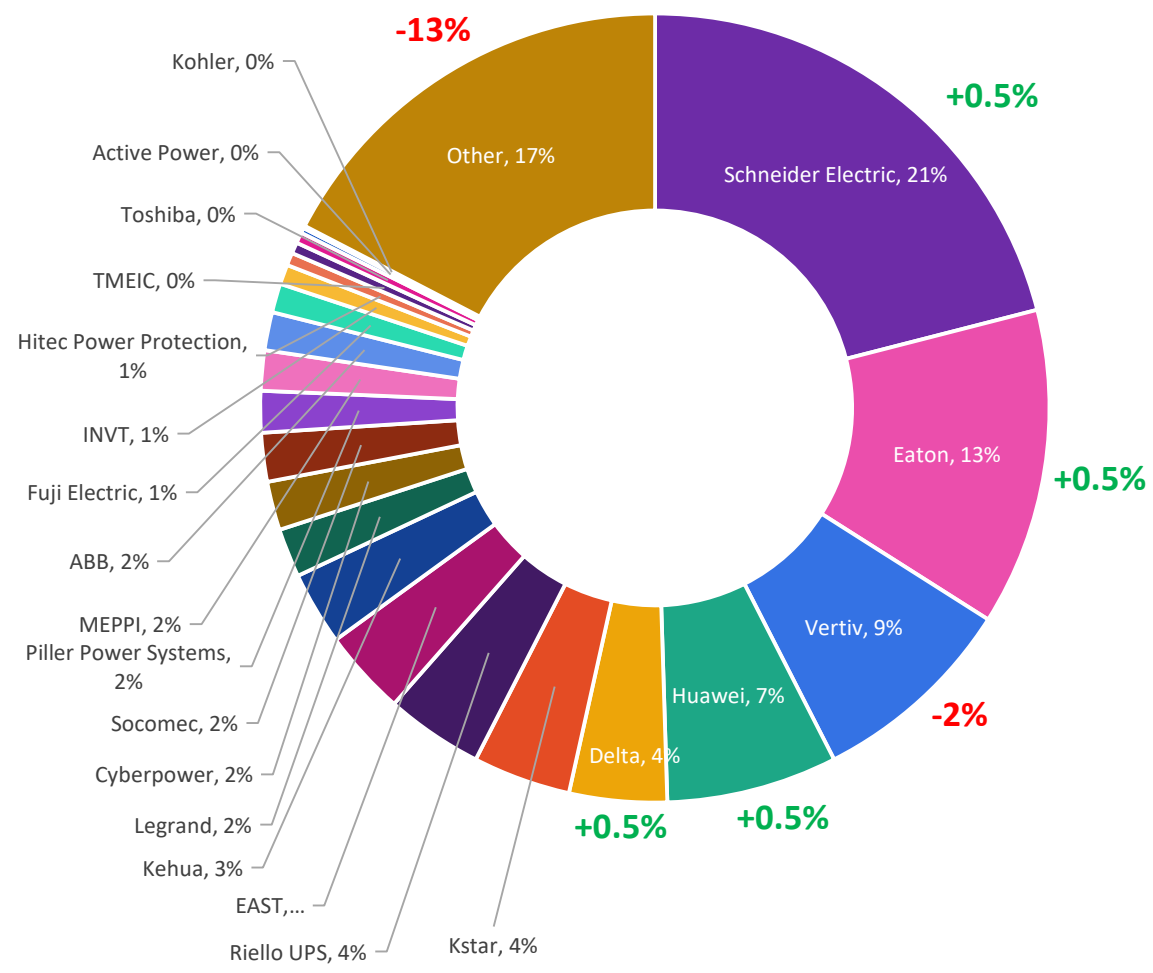
FIRE FIGHTING SYSTEM

Fire extinguishing system	The automatic fire fighting system automatically controls the release of fire-extinguishing gas through the fire-fighting linkage, supports sound and light alarm, gas release alarm, and able to turn on manually when emergency occurs
Fire extinguishing gas	FM200/NOVEC1230 optional
Weight of the Container (kg)	5000 Max. {20FT) 11000 Max. {40FT)

COMPLIANCE

Container Transportation Compliance	CCS
Core components in the container	UL,CE

UPS MARKET IS FRAGMENTED BUT MARKET CONCENTRATION GROWING



\$10445m
UPS REVENUE IN 2023

PART
4
ABOUT KSTAR



KSTAR

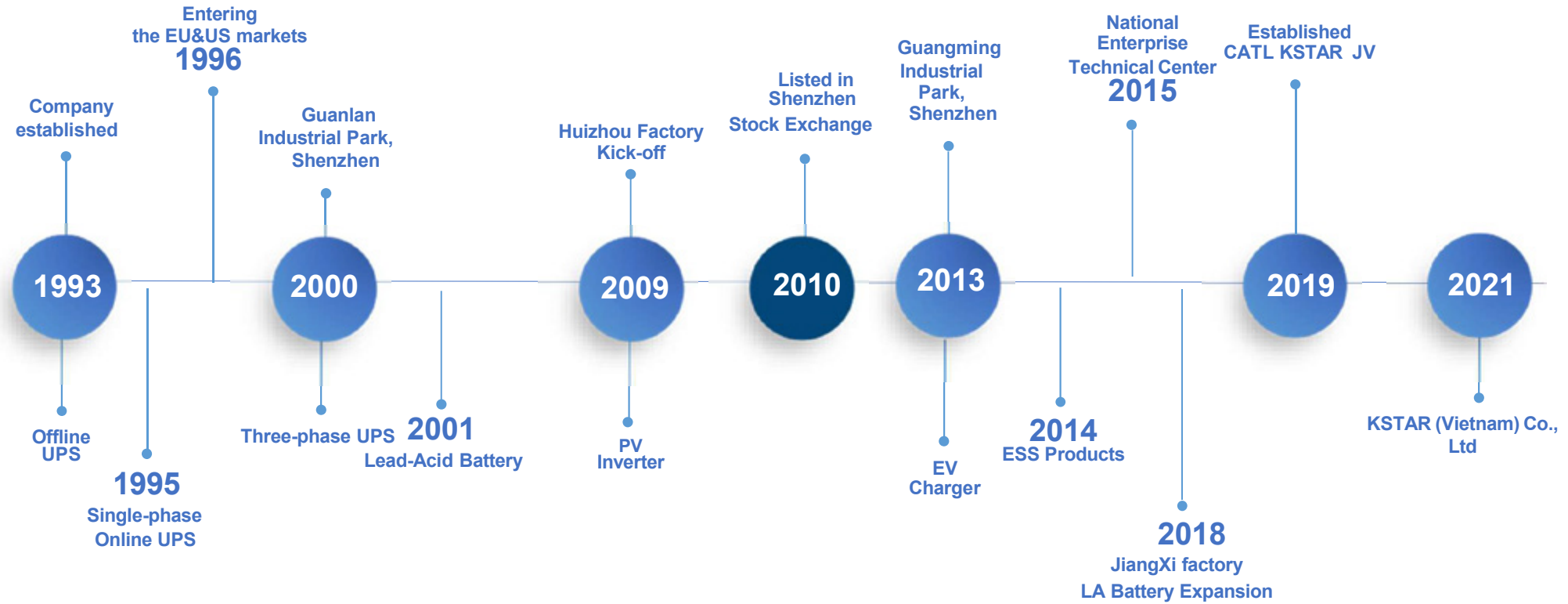
INTRODUCTION



KSTAR, established in **1993** and listed on Shenzhen Stock Exchange in 2010. It has a **National Enterprise Technology Center**.

KSTAR focuses on data center and photovoltaic solar energy products, R&D and manufacturing of electric vehicle charging products and energy storage products and is a global advanced supplier of above solutions.

DEVELOPMENT MILESTONES



INDUSTRIAL PRESENCE



2 R&D Centers

Guangming, Shenzhen
Fuzhou, Fujian



6 Major Manufacturing Basis

Guangming, Shenzhen
Guanlan, Shenzhen
Huizhou, Guangdong
Yichun, Jiangxi
Ningde, Fujian
Haiphong, Vietnam



Headquarter
Nanshan, Shenzhen



R&D, Manufacturing center
Guangming, Shenzhen



Manufacturing center
Zhongkai, Huizhou



Manufacturing center
Yichun, Jiangxi



CATL-KSTAR
Ningde, Fujian



Kstar Vietnam
Haiphong



Manufacturing center
Guanlan, Shenzhen



R&D center,
Fuzhou



INDUSTRIAL PRESENCE



INDUSTRIAL PRESENCE



 **Kstar Zhongkai Industrial Park**

 Established on:
2009

 Main business:
R&D and production of UPS, solar inverter and sheet metal.

- With an area of 97,000m², equipped with 4*SMT lines, 7*Coating lines and 16*Assembly lines, the sheet metal workshop equipped the most advanced bending/punching/laser cutting machine tool in the region of South China.
- All the 1 Phase UPS are manufactured in our HZ plant

INDUSTRIAL PRESENCE



→  **Jiangxi CGS Power Supply Co., Ltd**

 Established on:
2018

 Main business:
R&D and production of sealed
lead acid battery.

With an area of 160,000m², the annual production capacity of battery products reaches 3.0M/kVAh, equipped with 5 automatic production lines.

INDUSTRIAL PRESENCE



 **CATL-KSTAR Science & Technology Co., Ltd**

 Established on:
2019

 Main business:
R&D, production and sales of
energy storage products such
as converters, battery packs
and etc.

**With an investment of US\$138m, area of 207,000m²,
the current annual production capacity of energy storage
products reaches 4.2GWh.**

INDUSTRIAL PRESENCE



OVERVIEW

180+

Countries &
Regions

4200+

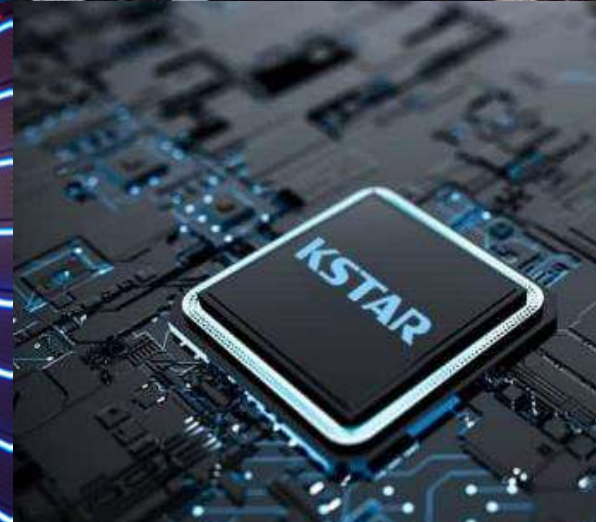
Employees

630+

R&D
Personnel

556

Patents



SPECIALISTS IN PROVIDING QUALITY POWER SOLUTIONS

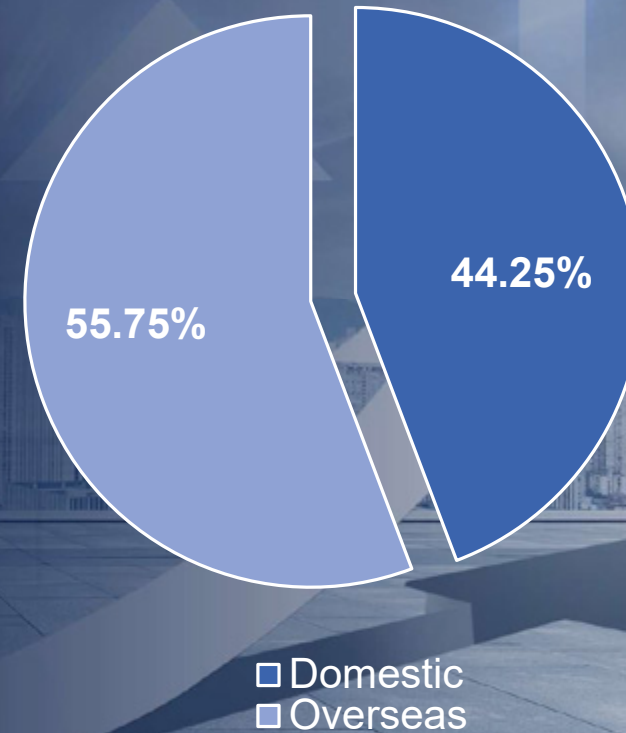
KSTAR

TURNOVER

FY2022

638M USD (FX @ 6.9)

- An increase of 56.84% from 2021
- More than 5.3% of annual turnover invest on R&D during last 3 years



CERTIFICATION

ISO 9001
Quality Management
System Certification

ISO 14001
Environmental Management
System Certification

ISO 45001
Occupational health & Safety
Management System
Certification

IECQ QC080000
Hazardous substance
Process Management
System Certification



PRODUCTION CAPABILITY

PCBA Workshop



PRODUCTION CAPABILITY

UPS Workshop



PRODUCTION CAPABILITY

PAC Workshop



PRODUCTION CAPABILITY

MDC Workshop



PART
5
ABOUT LPINZ



KSTAR



PROTECTING THE SKY TOWER SINCE 2010
PRODUCTS AND SERVICES OVERVIEW

UPS, GENERATORS, POWER ANALYSERS

- Active Harmonic Filters
- Power Factor Correction and SVG
- Capacitor and Current Transformer
- Portable and Fixed Power Analysers
- On-Site Power Audit and Report
- UPS up to 1000kVA
- UPS Services
- Batteries and Load Banks
- Commissioning and Services
- Generators



EV CHARGERS

- Wall Box and Pedestal
- Floor Mount and Outdoor
- AC Fast Chargers from 12kW to 43kW
- DC Fast Chargers from 12kW to 400kW
- RFID, Wi-Fi, 4G, Bluetooth Connectivity
- Dynamic Load Management
- User Management and Billing
- Solar Canopy for EV Chargers
- Parking Guidance Systems
- OCCP Protocol and MID Meters



CIRCONTROL
Mobility & eMobility



COSMOS

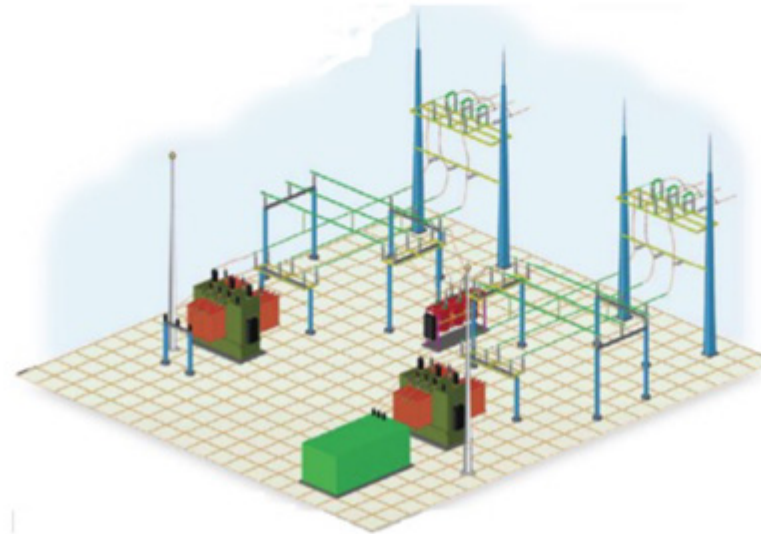


HV EQUIPMENT

- Supply of Earthing, Grounding and Bonding Equipment
- Lightning Protection Design for HV Power Facilities
- Substation Earthing Design
- Exothermic Welding Equipment
- HV and MV Capacitors
- Power factor Correction and Harmonics Mitigation
- Power Plants - turn Key and Equipment Supply
- Koncar Transformers up to 1000mVA
- HVDC Power Transformers up to 550kV



HVDC converter transformer delivered to New Zealand for Transpower



LIGHTNING AND SURGE PROTECTION

- Active Lightning Protection
- (NFC / IEC Compliant)
- AS / NZS 1768 Compliant Lightning Protection / Smoothweave LP
- Risk Assessment Reports
- Design and consultancy
- On-site Maintenance and Inspections
- Surge Diverter and Surge Filter with Bluetooth Monitoring App
- Lightning Warning System
- Chemical Rod



EARTHING AND EXOTHERMIC WELDING

- Copper Tape and Copper Bars
- Copper, Galv and Stainless Steel Earth Rods
- Earth bars and Earth Pits
- Rebar Clamps and Connectors
- Ground Enhancement Materials (GEM)
- Chemical Rod
- Rebarcons (Wricon Equivalent)
- Exothermic Weld, Graphite Molds, Weld Metal Pods, E-Ignitors
- Exothermic Welding Training



SERVICES

- Data Logger / Power Analyser Hire
- Power Quality Audits
- Harmonic / PFC Analysis
- PFC / Harmonic Filter Maintenance
- UPS Servicing and Maintenance
- Lightning Protection Risk Assessment
- Lightning Protection Design
- Soil Sensitivity Testing
- Earth Resistance Testing
- Earthing Design





THANK YOU FOR YOUR INTEREST.
FOR FURTHER INFORMATION ABOUT THIS PRESENTATION,
PLEASE CONTACT:

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