Tescom®

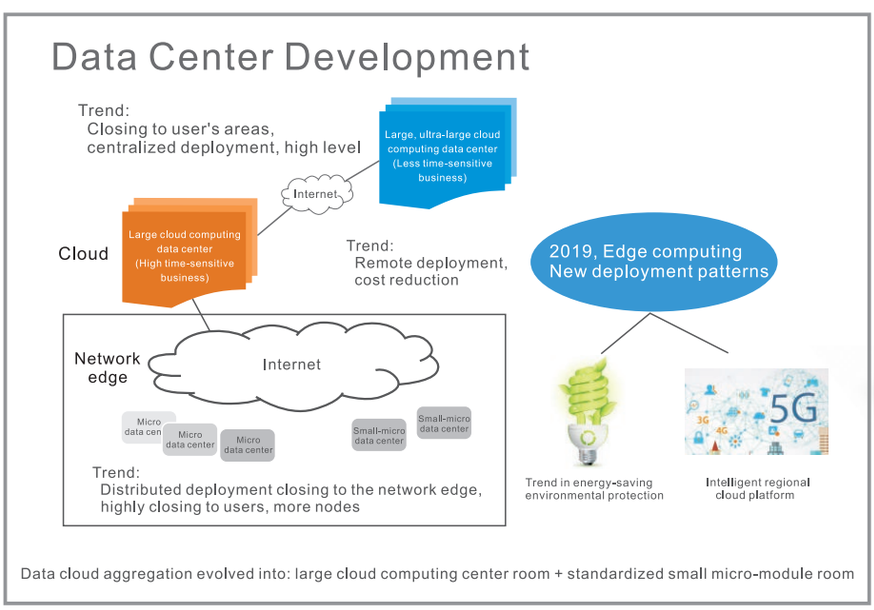
DATA CENTER SOLUTIONS

EASY CUBE i9 MICRO DATA CENTER

Micro Edge-Computing Product

Integrated Small-Size Indoor Energy Management System

Easy Cube i9 series micro edge-computing energy system solution is integrated with PDU, UPS system, battery bank, integrated precision air conditioning, monitoring system, cabinet channel system and wiring. The system is equipped with a closed cold aisle, which achieves the optimal cooling and energy saving effect with rack-mounted air conditioning and civil air conditioning. The cabinet is an IT room. All components are factory prefabricated, pre-assembled and pre- debugged. Field installation takes 1 hour to make plug-and-play. It comes with a 15-inch large screen display and remote Web interface control monitoring function to make single network, multiple network centralized monitoring and unified management.



Data cloud aggregation evolved into: large cloud computing center room + standardized small micro-module room

Applications:

Business outlets of finance, telecoms and energy

Small branch of government departments

Commercial retail

Industry 4.0, intelligent manufacturing

Smart education,campus security

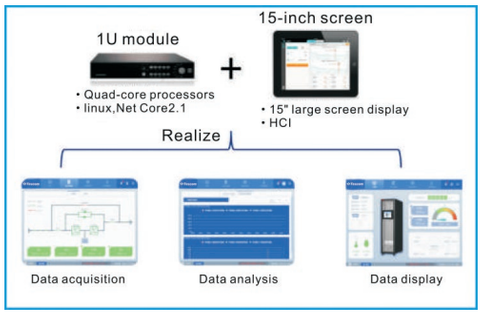
Smart community, smart villa,primary care

Cabinet System

A standard 19-inch rack, GB/T3047.2-92
Tempered glass/meshes for front door of the rack(600*1200*2000mm)
Back door with meshes, ventilation rate at 75% ~ 80%
Material: cold-rolled steel, thickness of the angle gauge at 2.0mm
Color: black (RAL9004)

- Flange cover: 1 U
- Rail: 19-inch, black, maximum stroke 800 mm
- Tray: 19-inch, W 480* D 800 mm, black
- Door contact & Spring door device

Monitoring System



PDU

UPS

- UPS/Battery bank unit： 1-10kW;
- 2 ~ 3 U modular design;
- Output power factor 0.9;
- DC cold start, switching on the UPS with battery;
- Frequency conversion function, supporting 50 Hz input/60 Hz output or 60 Hz input/50 Hz output;
- Intelligent monitoring, flexible setting of battery low voltage protection.

Refrigeration System

2 kW All-In-One (Standard glass door)

- Input : AC 220V
- Refrigerant : R134a
- Refrigerating capacity : 2kW
- Internal circulating air : 600m3/h
- Noise : 58dB(A)
- Mounting: Rack-mounted 7 U, Depth 800 mm
  (a clearance of 1 U at the top and bottom is required for ventilation)
- Weight : 41.5kg

Power Distribution System

Intelligent PDU:

- 3 U modular design
- Intelligent power acquisition: mains input voltage/current/frequency/power
- Branch output voltage/current/frequency/power, electric parameters, breakers ON/OFF status
- Schneider switches, class C SPD 20 kA

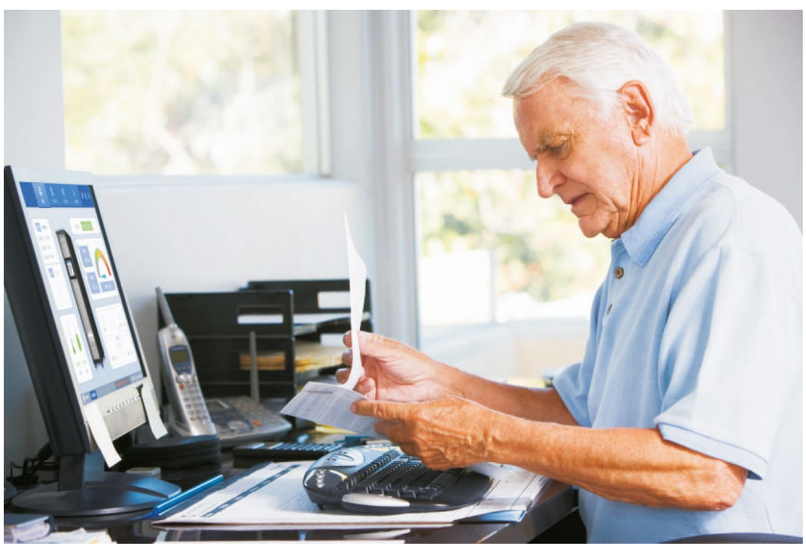
Three advantageous Value-Added Services

Fast Delivery

- The cabinet is an IT room
- Air conditioning, power distribution, UPS, monitoring, sensors and others are pre-assembled and pre-debugged Only need one mains power cable entry
- No need to install the outdoor unit
- The installation and test of a single cabinet only takes 1 hour, saving the installation cost and realizing a quick launch service

Environmental-friendly

- Cold aisle containment, making optimal refrigeration effect
- Integrated refrigeration equipment guarantees at the front end, make full use of civil air conditioning at the back end, realizing the best energy saving Integration, saving space
- Intelligent power detection and management, cost-effective

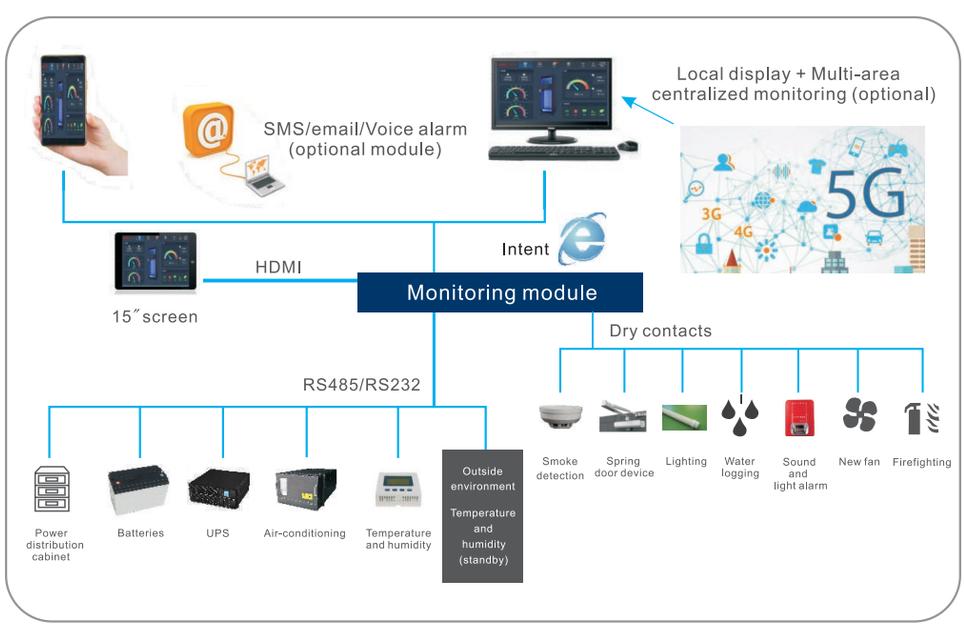


ONE SCREEN CONTROL

Intelligent Management

- 15″ display screen, Linux operation system, quad-core processors, smooth and stable system
- Real-time monitoring of the UPS, temperature and humidity, water logging, door contacts,smoke detection of the system to provide effective emergency alarm protection scheme and ensure that the equipment operates in a reliable infrastructure environment
- Logging in IP address via remote Web interface can access the modules and power and environment system, realizing remote operation and maintenance, centralized monitoring of multiple modules and unified cloud platform management
- Ability to monitor the IP equipment and any IP terminals, achieving unified network management for the IT room
- Remote mobile operation and maintenance via WeChat-miniprogram, SMS and telephone, no matter when and where can make real-time monitoring and unattended operation Access cloud escort, your operation and maintenance can be outsourced to us

Monitoring - Power & Environment Control System



Traditional financial network room

Cabinet type data center

Comparison of traditional financial network room with cabinet type data center

Item	Traditional financial network room	Cabinet type data center
Design and construction	Required and more complicated: multi-suppliers, approach in batc-hes, taking a lot of effort to coordinate and communicate	Not required: factory overall debugging, direct approach to use
Construction costs	Including decoration and other additional costs, the total cost is higher	Compared with the traditional network room, its overall construction cost is lower
Construction period	1-2 months (including decoration)	1 day for installation and debugging
Relocating	The network room relocation can't reuse the old equipment	Whole relocation is available
Manageability	Multiple management,maintenance inconvenience	Unified networking management
Power distribution system	Independent design, wall mounting, generally no lightning protectio	System built-in, modularity, including lightning protection, taking up only 6-8 U of space
Air-conditioning system	The outdoor unit cannot be installed	Integrated air conditioning, no need of outdoor units
Cable Installation	Field laying, long distance, easy to cause waste and reliability prob-lems	Engineering integrated, economy and reliability 1.5–
Footprint	10-20 m^2 network room, very low utilization	2 m^2/cabinet, high utilization
System aesthetics	Size/style/color are difficult to unify	The overall appearance is unified, harmonious and high-end
Monitoring system	Each intelligent device monitoring is independent, the interfaces are not unified, the compatibility is poor	The factory integrally debugs and tests the monitoring system, provides local or remote management scheme, and makes unattended service.
After-sales service	Different manufacturers, different warranty period, different service interface	Full life cycle service, unified brand, unified service

TECHNICAL SPECIFICATIONS

Single Cabinet	Easy Cube i9 Configuration and Parameters	
System	Function cabine	Standard configuration, 42 U, a maximum of available space 26 U
	IT cabinet	Optional configuration, 42 U, a maximum of available space 40 U
	Aisle type	Cold aisle containment
	Power density range	3 kW
	Battery deployment mode	Battery banks, battery cabinets, battery racks
	Backup time	3-90 min (depends on batteries)
	Installation method	Cement floor/elevated floor
	Power supply system	Single /single-phase
	IP rating	IP20
Cabinet	Dimensions	600 × 1200 × 2000 mm (excluding casters and anchor)
	Front door	Glass door, Spring door device
	Back door	Mesh door
Refrigeration system	Input power supply	220 ~ 230Vac / 50~60 Hz
	Refrigerating capacity	2.0 kW
	Space	8 U
	Sensible heat factor	1
	Communication interface	485
	Air supply method	Supply air in front and return air in the rear
	Refrigerant	R134a
	Installation	Integrated rack-mounted
Emergency fan system	Input power	220 Vac
	Function	Temperature control can be realized
	Cold aisle at the top	Downside air supply
	Installation	Install at the top of cabinet
Monitoring system	Monitoring system	Linux
	Display screen	15-inch touch screen
	Installation	1 U embedded
	Water logging	Standard configuration, SMS or email alarms (Optional SMS Modem is required)
	Sound and light system	Standard configuration, placed in front of the cold aisle inside the cabinet
	Smoke detection	Standard configuration, SMS or email alarms (Optional SMS Modem is required)
	Temperature and humidity	Standard configuration
	Door contacts	Standard configuration
	Spring door device	Standard configuration
	PDU monitoring	Support
	UPS monitoring	Support
	Air conditioner monitoring	Support
	Fire monitoring	Support
	Lighting Rope light in cabinet	Standard configuration, mounting on the top, lights on when the door opens, off when the door closes
	Communication interface	RJ 45
	Protocol format	Modbus TCP/IP
Power distribution	Distribution switch	Schneider switches + class C SPD
	Mains/UPS feeding branch	Three-way mains feeding(one-way air-conditioning + two-way IT) /two -way UPS feeding(two-way IT)
	Power acquisition	Intelligent power detection, mains branches off to make data acquisition
	Installation	3 U, rack-mounted
PDU	Vertical common model	Standard configuration, standard model with 12 ways
	Vertical smart model	Optional, 10 ways
Firefighting	Firefighting module	Optional
Installation	Flange cover	Standard configuration, 1 U*15
	Tray	Standard configuration, 1 set
	Rail	Standard configuration, 1 set sets
	Cable accessories	Standard configuration, communication cables/power cables