

Rittal – The System.

Faster – better – everywhere.

► Data Centre In A Box



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP



Data Centre In A Box

Rittal's Data Centre In A Box replicates all of the key data centre capabilities but on a smaller scale.



The Data Centre In A Box mitigates risk and provides compelling CAPEX and OPEX benefits:

“Rittal – The System.” stands for efficient system solutions for the IT industry thanks to modular and scalable infrastructures. The ever increasing demands on permanently available IT systems call for customised data centre solutions from a single source. As a long-standing, experienced system partner and supplier to the IT industry, Rittal has the relevant expertise for this sector’s very specific issues and requirements.

A Data Centre facility is used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes redundant or backup power supplies, redundant data communications connections, environmental controls (e.g. air conditioning, fire suppression) and security devices.

- The “Data Centre in a Box” concept enables equipment to be deployed in non-traditional Data Centre environments
- Standardised infrastructure supports simple operation for IT staff
- TS-IT rack platform ensures speed of deployment for active and passive equipment
- Demand-orientated climate control ensures efficiency and low PUE
- Compact nature facilitates easy deployment and redeployment
- Fire detection and suppression system can protect the critical infrastructure (optional)
- System monitoring enables instant messages to be sent to forewarn of upcoming issues
- Intelligent power rails enable remote power cycling in the event of hardware issues (optional)
- Back up power supply provides resilience in the event of poorly conditioned power/total failure (optional)
- A complete solution ensures peace of mind from point of purchase, through installation and on-going maintenance

Rittal’s innovative solutions for the IT environment ensure reliability, availability and optimum cost-efficiency for server/network technology and data centre construction.

- On-premise cloud infrastructure
- Remote/Branch office environments
- Retail
- Finance & banking sector
- Warehouse/Logistics Hubs
- Oil /Gas/Mining
- National and Local Government
- IAAS (Infrastructure as a service) component
- Small and medium enterprises
- Network rooms
- Office communication rooms
- Manufacturing
- Process automation in harsh environments
- Edge Computing

Technology Features:

TS IT Rack

The ideal platform for all network and server technology requirements. The TS IT rack from Rittal also promises top quality in terms of safety and reliability.

- High load capacity - Load capacity of up to 1,500 kg
- Individual configuration - The ideal basis for all network and server technology requirements
- Variable interior installation
- Greater confidence - Variants with protection category IP 55, both with and without interior installation
- Tool-free installation - System accessory mounting using new, time-saving snap-in technology
- Intelligent cable management - Multi-functional roof for side cable entry, ensures maximum user-friendliness and free air flow for active components
- Quick-assembly side panel - Divided with quick release fasteners, integral lock and internal latch
- Intelligent accessories - Simple and quick selection of system accessories using the new TS IT concept



PDU - Power

With the compact PDU, any TS IT rack may be easily equipped with a professional power distribution system.

- Compact design
- Easy to assemble
- Flexible mounting options
- Power-saving design, minimal consumption by the PDU itself, thanks to the use of bistable relays and OLED display with power-saving function
- Energy measurement per phase, i.e. output requirement of an entire IT rack
- Reliable protection against unauthorised access by covering any outputs that are not required
- High-end IT rack, power distribution with energy measurement and monitoring functions for each individual output slot
- Bistable relays ensure minimum inherent power consumption by the PDU
- Connection options for CMC III sensors (temperature, humidity, access)



Data Centre in a Box - TopTherm Cooling



Data Centre in a Box - Option 1

TopTherm cooling

- Active climate control of individual enclosures for heat losses of up to 3kW. Target temperature-controlled control of the server inlet temperature.

Optional Upgrades:

- **POWER RAILS:**
Upgrade to monitored & switched 16A or 32A rails
- **UPS:**
3kW Double conversion UPS, with a minimum of 5 minutes autonomy at full load. Additional battery packs are also available
- **FIRE DETECTION & SUPPRESSION:**
Very early smoke detection alarm system with Novec1230 gas suppressant
- **MONITORING:**
Additional temperature, humidity and vandalism sensors
- **RACK ACCESS:**
Electronic locking with keypad and network access

Top Therm (Roof Mounted) Cooling Capacity 3KW

Rack size H (U) x W (mm) x D (mm)	Rack Spec	Power	Service
42U 800 x 1200	TS IT Rack Glass Front Door Rear Steel Door Air Baffles Side Panels	Basic PDU 16A Single Phase 24 x C13 / 4 x C19	Full Rack configuration, power and cooling commissioning and 2 PM visits

Optional Extras:

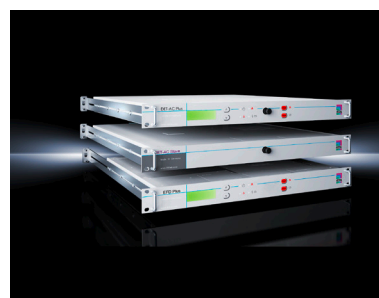
MONITORING & ACCESS CONTROL

- Temperature and humidity sensors
- Vandalism - Manage access to the rack
- Electronic locking with keypad and network access
- Simple integration with Rittal DCIM platform RiZone or third party management software via SNMP and OPC-UA protocols

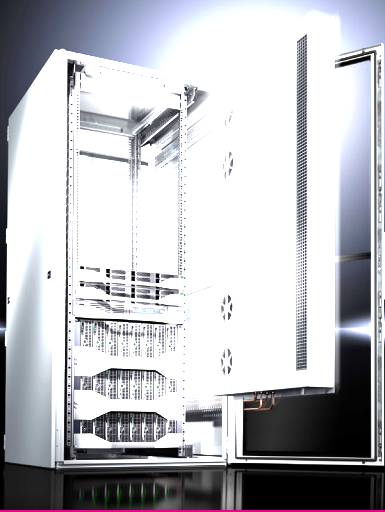


FIRE DETECTION & SUPPRESSION

- Fire detection at a very early stage (pyrolysis phase)
- Compact system with only 1 RU rack footprint
- Automatic door opening kit for front and rear doors
- Automatic extinguishing with the innovative extinguisher gas
- NOVEC 1230



Data Centre in a Box - Liquid Cooling Unit



Data Centre in a Box - Option 2

LCU Cooling Unit

- Refrigerant-based enclosure cooling in single version for TS IT or Micro Data Center without heating up the installation room. With two output categories 3 kW and 6.5 kW, the ideal cooling solution for smaller IT applications.

Optional Upgrades:

- **POWER RAILS:**
Upgrade to monitored & switched 16A or 32A rails
- **UPS:**
3/6KW UPS System double conversion UPS, with a minimum of 5 minutes autonomy at full load. Additional battery packs are also available
- **FIRE DETECTION & SUPPRESSION:**
Very early smoke detection alarm system with Novec1230 gas suppressant
- **MONITORING:**
Additional temperature, humidity and vandalism sensors
- **RACK ACCESS:**
Electronic locking with keypad and network access

Liquid Cooling Unit - LCU Cooling Capacity 3.5KW or 6.5KW

Rack size H (U) x W (mm) x D (mm)	Rack Spec	Power	Service
42U 800 x 1000	TS IT Rack Glass Front Door Rear Steel Door Air Baffles Side Panels	Basic PDU 16A or 32 A Single Phase 24 x C13 / 4 x C19	Full Rack configuration, power and cooling commissioning and 2 PM visits

Optional Extras:

MONITORING & ACCESS CONTROL

- Temperature and humidity sensors
- Vandalism - Manage access to the rack
- Electronic locking with keypad and network access
- Simple integration with Rittal DCIM platform RiZone or third party management software via SNMP and OPC-UA protocols



FIRE DETECTION & SUPPRESSION

- Fire detection at a very early stage (pyrolysis phase)
- Compact system with only 1 RU rack footprint
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- Automatic extinguishing with the innovative extinguisher gas
- NOVEC 1230



Data Centre in a Box - Liquid Cooling Package



Data Centre in a Box - Option 3

LCP Cooling Package

- Cooling via high-performance compact impellers. The LCP draws in the air at the sides of the rear of the server enclosures and blows the cooled air back into the front part of the server enclosure at the sides.

Optional Upgrades:

- **POWER RAILS:**
Upgrade to monitored & switched 16A or 32A rails
- **UPS:**
12KW UPS System double conversion UPS, with a minimum of 5 minutes autonomy at full load. Additional battery packs are also available
- **FIRE DETECTION & SUPPRESSION:**
Very early smoke detection alarm system with Novec1230 gas suppressant
- **MONITORING:**
Additional temperature, humidity and vandalism sensors
- **RACK ACCESS:**
Electronic locking with keypad and network access

Liquid Cooling Package - LCP Cooling Capacity 12KW

Rack size H (U) x W (mm) x D (mm)	Rack Spec	Power	Service
42U 800 x 1000	TS IT Rack Glass Front Door Rear Steel Door Air Baffles Side Panels	Basic PDU 16A Single Phase 24 x C13 / 4 x C19	Full Rack configuration, power and cooling commissioning and 2 PM visits

Optional Extras:

MONITORING & ACCESS CONTROL

- Temperature and humidity sensors
- Vandalism - Manage access to the rack
- Electronic locking with keypad and network access
- Simple integration with Rittal DCIM platform RiZone or third party management software via SNMP and OPC-UA protocols



FIRE DETECTION & SUPPRESSION

- Fire detection at a very early stage (pyrolysis phase)
- Compact system with only 1 RU rack footprint
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- Enclosures
- Power Distribution
- Climate Control
- IT Infrastructure
- Software & Services

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