

# FRA4

**CyrusOne Data Center  
Frankfurt - Sossenheim  
Willhelm Fay Strasse  
Frankfurt am Main  
Germany**

**Latitude: 50 07 57.56 N  
Longitude: 8 34 43.03 E**

**CyrusOne FRA4** is a brand-new purpose-built data center offering cloud providers, systems integrators and multinational corporations customised, secure and resilient data center solutions within a key business hub.

The facility is strategically located in Sossenheim, the preferred location for data centers in Frankfurt, Germany's "Digital City". It sits just 500 meters from CyrusOne **FRA3** delivering 11 MW of IT power to 5,380 sq m (57,910 sq ft) of world-class technical space, with each data suite customised to individual client specifications.



## Overview

- 11 MW of IT power delivered to 5,380 sq m (57,910 sq ft) of world-class technical space within a four storey data center
- Active / Active 20 kV dual redundant power supplies with fully flexible IT power solutions
- Connection to the European high voltage grid via two independent substations
- Low PUE through the use of adiabatic free cooling chillers
- Highly resilient, concurrently maintainable power and cooling to Tier III
- Carrier neutral access and diverse fibre connectivity to active A&B Meet Me Rooms from multiple telecommunication providers
- Bespoke and scalable data halls
- Multilayer industry-leading levels of physical and electronic security
- Dedicated offices, buildroom and/or ancillary space adjacent to each hall
- Dedicated distributed redundant electrical infrastructure to each data hall
- Secure managed delivery bay with five tonne goods lift
- 24/7 year round onsite support

## Power

- Mains power supplied via 100% rated A&B 20KV incomers diversely routed active / active with a capacity of 20 MVA
- All IT power metered and charged as consumed
- 2.75 MW distributed redundant topology with three independent and compartmentalised blocks
- 99.999% reliability with the ability for concurrent maintainability
- IT power supplies derived from primary and reserve feeds from each block creating a meshed IT distribution topology between all three blocks
- Distributed redundant UPS topology with ten-minute battery back-up as standard two UPS systems per block
- Fully rated N+1 MV back-up generators with 48-hour fuel autonomy, capable of continuous running
- Re-fuelling contracts to ensure timely replacement

## Cooling

- Cooling configured on a resilient ring chilled water system
- 2.75 MW IT capacity cooling solution per floor
- N+1 adiabatic free cooling air chillers
- Computer room air handling units at N+50%
- Circulation pumps N+1
- Low PUE due to cooling solution and optimum chilled water temperatures to maximise the free cooling hours
- Cooling infrastructure individually managed and linked to BMS
- Independently regulated temperature and humidity
- Power supplies to cooling equipment for full redundancy configured in a distributed redundant topology

## Energy Efficiency

- Scalable UPS capable of ECO and sequence modes
- Variable speed drive chilled water pumps
- Variable speed drive CRAH units fans
- 25+/-2 °C supply air control band
- 20%RH to 80%RH supply air control band
- Air cooled plantrooms when conditions permit
- Adiabatic free cooling chillers
- Low PUE through the use optimum chilled water temperatures

## Connectivity

- Carrier neutral access and diverse fibre connectivity to active A&B Meet Me Rooms from multiple telecommunication providers including euNetworks and Zayo
- Megaport point of presence available onsite providing network access to services without a cloud on-ramp

## Fire Detection and Suppression

- Three stage fire detection systems into data halls and UPS plant areas
- VESDA (Very Early Smoke Detection Apparatus) in data halls and UPS plant rooms for early warning
- Fire detection in all rooms, ceiling return air plenums and in voids as required
- Nitrogen based centralised gas suppression system to data halls and UPS rooms
- Fire detection and suppression systems interconnected to central BMS

## Building & Energy Management Systems (BMS & EMS)

- Power and building monitoring systems to provide alarms
- Power surge management
- 24/7 year-round on-site M&E engineers undertaking Planned Preventative Maintenance (PPM) programmes
- Real-time monitoring of electrical and mechanical systems

## Compliance (Operated to International Standards)

- ISO 14001 Environmental Management
- ISO 27001 Information Security Management
- ISO 9001 Quality Management
- ISO 50001 Energy Management

## Security

- 3 metre high secure perimeter fence to CPNI base specification
- External CCTV
- PAS68 rated gates to protect from vehicle attack
- 24/7 year-round on-site security located in secure control room
- Extensive CCTV and access control throughout the facility
- Progressive layers of security to restrict access through the site
- Mantraps with biometric readers into data halls if required

## State-Of-The-Art Engineering

- Air cooled UPS modules
- Sequence and variable mode UPS modules dedicated to each hall
- Integrated A&B MV infrastructure along with N+1 MV generators and N+N generator panels for increased resilience
- Phasing to allow for subtle changes in each hall/tenant specification/requirements
- Dual redundant networks and BMS servers for resilience

## Typical Floor Plan

