

The certification body of TÜV Informationstechnik GmbH hereby awards this certificate to the company

Ruhr-Universität Bochum
Universitätsstraße 150
44801 Bochum, Germany

to confirm that its security area

Datacenter RUB

fulfils all requirements of

EN 50600, Availability Class 3
Protection Classes 1-3,
Granularity Level 3

using the criteria catalog TSI.EN50600 V2.0 of TÜV Informationstechnik GmbH. The requirements are summarized in the appendix to the certificate.

The appendix is part of the certificate and consists of 4 pages.

The certificate is valid only in conjunction with the evaluation report.



Certificate validity:
2022-09-27 - 2024-09-27

Certificate ID: 66775.22

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Essen, 2022-09-27

Dr. Christoph Sutter
Head of Certification Body

TÜV Informationstechnik GmbH

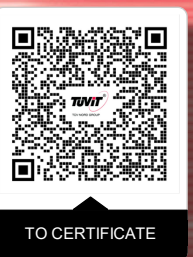
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Certificate



Certification Scheme

The certification body of TÜV Informationstechnik GmbH performs its certification on the basis of the following certification scheme:

- German document: “Zertifizierungsprogramm (nicht akkreditierter Bereich) der Zertifizierungsstelle der TÜV Informationstechnik GmbH”, version 1.1 as of 2020-03-01, TÜV Informationstechnik GmbH

Evaluation Report

- German document: “Prüfbericht – Trusted Site Infrastructure (TSI.EN50600), Datacenter RUB”, version 1.0 as of 2022-09-15, TÜV Informationstechnik GmbH

Evaluation Requirements

The Evaluation Requirements are defined in the following standards:

- EN 50600-1, Information Technology – Data centre facilities and infrastructures – Part 1: General concepts; German version EN 50600-1:2019-08
- EN 50600-2-1, Information Technology – Data centre facilities and infrastructures – Part 2-1: Building construction; German version EN 50600-2-1:2014-09
- EN 50600-2-2, Information Technology – Data centre facilities and infrastructures – Part 2-2: Power supply and distribution; German version EN 50600-2-2:2019-08

- EN 50600-2-3, Information Technology – Data centre facilities and infrastructures – Part 2-3: Environmental control; German version EN 50600-2-3:2019-08
- EN 50600-2-4, Information Technology – Data centre facilities and infrastructures – Part 2-4: Telecommunications cabling infrastructure; German version EN 50600-2-4:2015-07
- EN 50600-2-5, Information Technology – Data centre facilities and infrastructures – Part 2-5: Security systems; German version EN 50600-2-5:2016-08
- EN 50600-3-1, Information Technology – Data centre facilities and infrastructures – Part 3-1: Management and operational information; German version EN 50600-3-1:2016-08

and were checked applying the evaluation requirements:

- “TSI.EN50600 Criteria Catalog, TSI.EN50600 Version 2.0“ as of 2020-04-01, TÜV Informationstechnik GmbH

Evaluation Target

The evaluation target is the security area “Datacenter RUB” of Ruhr-Universität Bochum. It is detailed in the evaluation report.

Evaluation Result

The evaluation target fulfils all applicable requirements of the above-mentioned standards with regard to

- Availability Class 3,
- Protection Classes 1-3,
- Granularity Level 3.

Summary of the Evaluation Requirements

The EN 50600 defines requirements for a data center in the following areas:

- Building construction,
- Power distribution,
- Environmental control,
- Telecommunications cabling infrastructure,
- Security systems,
- Management and operation.

To classify a data center, four availability classes, four protection classes and three levels of granularity for energy monitoring are defined.

Availability Classes

In EN 50600-2-2/-2-3/-2-4 four different grades of availability classes are defined for the entirety of all facilities and infrastructures of the data center. The availability classes have the following characteristics, among others:

- | | |
|-----|--|
| AC1 | Single path layout |
| AC2 | Single path layout with redundancies |
| AC3 | Multi-path design,
solution for repair during operation |
| AC4 | Multi-path design,
fault tolerant except during maintenance |

Protection Classes

Four different protection classes are defined. A protection class is assigned to all areas and supply paths of the data center. They describe physical protection against the following events:

- unauthorized access,
- internal environmental events,
- external environmental events.

With regard to unauthorized access, at least three protection classes must be implemented.

Granularity levels for the measurement of energy consumption

Three levels of granularity are defined for the measurement:

- Level 1: a measuring concept that provides simple, general information for the entire data center.
- Level 2: a measuring concept that provides detailed information for specific facilities and infrastructures within the data center.
- Level 3: a measuring concept that provides granular data for the systems within the areas and supply paths of the data center.