

DIN EN 50600

Question and Answers



Data center certification according to DIN EN 50600

EN 50600 represents the first European standard that uses a holistic approach to make comprehensive specifications for the new construction and operation of a data center. It defines requirements for the construction, power supply, air conditioning & ventilation, cabling, security systems, and defines criteria for the operation of data centers. Created by CENELEC (European Committee for Electrotechnical Standardization), EN 50600 offers various degrees of freedom, and can to a certain extent be understood as a modular system. First and foremost, EN 50600 represents a standard that is applicable during the construction of new data centers. It defines the assessment reports and analyses that are necessary in advance of the design and construction work.

While the ISO management standards, e.g. ISO/IEC 27001, are equally relevant to the data center setting and focus on the organizational and procedural level, the requirements of EN 50600 are focused on physical security and availability of mechanical systems. As one of a wide range of guidelines and best practices, this standard is valid throughout Europe.

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Previously there have been a various guidelines for the design, construction and operation of data centers. Even when they were combined, they made a holistic view virtually impossible. The European standard EN 50600 has been ensuring clarity internationally since 2016, and provides incentives, both for enterprise and colocation data centers, as well as for their customers.

What is the scope of EN 50600?

The standard is divided into four parts:

- Part 1: General concepts
- Part 2: Physical aspects of structural issues relating to the building, up to and including energy, cabling and security aspects
- Part 3: Management
- Part 4: Efficiency aspects such as KPIs, energy consumption and renewable energies

EN 50600 has been rolled out since 2012 in ten parts and subsections:

- EN 50600-1: General aspects for design and specifications
- EN 50600-2-1: Building construction
- EN 50600-2-2: Power distribution
- EN 50600-2-3: Environmental control
- EN 50600-2-4: telecommunications cabling infrastructure
- EN 50600-2-5: Security systems
- EN 50600-3-1: Management and operational information
- EN 50600-4-1: Overview of and general requirements for key performance indicators
- EN 50600-4-2: Power Usage Effectiveness
- EN 50600-4-3: Renewable Energy Factor

Can data centers be certified according to EN 50600?

EN 50600 is written as a guideline. If this guideline is complemented by a criteria catalogue which interprets the requirements of the EN 50600 standard then an evaluation and certification process can be put on top.

One such certification scheme in widespread use is TSI (Trusted Site Infrastructure), a criteria catalog developed since 2001 by TÜViT, which since 2016 has additionally taken into consideration the requirements of EN 50600. Because TSI.STANDARD is particularly about high availability and clear comparability between data centers, it makes more detailed and supplementary specifications in certain areas. A dedicated criteria catalog has therefore additionally been developed, in order to provide certification requirements native according to EN 50600.

EN 50600 certification based on the new criteria catalog TSI.EN50600 is the TÜViT response to the growing demand for EN 50600 certificates. TSI.EN50600 adopts the proven systematics from the TSI.STANDARD criteria catalog, and substantially describes all shall-requirements resulting from EN 50600, Part 1-3, in its audit criteria. Thus, TSI.EN50600 makes the European standard auditable and certifiable. The certificates document that the data center

- complies with EN 50600,
- has realized one of four availability classes,
- has implemented at least the protection classes 1-3 and
- demonstrates energy efficiency capabilities under one of three granularity levels.

What are the benefits of EN 50600?

With the help of EN 50600, the operators of data centers have access for the first time to an international and comprehensive standard. The norm enables data center operators to sustainably design, operate and expand their data centers in accordance with the state of art.

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