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BSI Standards Publication

Mechanical structures for electrical and electronic equipment — Aisle containment for it cabinets

Part 3: Aspects of operational and personal safety

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National foreword

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MECHANICAL STRUCTURES FOR ELECTRICAL AND ELECTRONIC EQUIPMENT – AISLE CONTAINMENT FOR IT CABINETS –

Part 3: Aspects of operational and personal safety

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Technical Specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

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IEC TS 62966-3, which is a Technical Specification, has been prepared by subcommittee 48D: Mechanical structures for electrical and electronic equipment, of IEC technical committee 48: Electrical connectors and mechanical structures for electrical and electronic equipment.

The text of this Technical Specification is based on the following documents:

DTS	Report on voting
48D/725/DTS	48D/731/RVDTS

Full information on the voting for the approval of this Technical Specification can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62966 series, published under the general title *Mechanical structures for electrical and electronic equipment – Aisle containment for IT cabinets*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
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INTRODUCTION

This Part 3 of IEC 62966 serves as a guide for a consideration from a safety viewpoint of the dimensional and air conditioning aspects of cold and hot aisle containments in data centres described in IEC 62966-1 and IEC 62966-2.

Where aspects of this Technical specification conflict with national regulations and laws of the member states concerned, the provisions of these national regulations shall apply.

Consideration is given to safety-related aspects, such as:

a) escape and evacuation plans;

b) escape routes;

c) emergency exits;

d) functional aspects of escape doors;

e) lighting conditions;

f) lighting and signposting of escape routes;

g) fire protection;

taking into account the existing stringent requirements placed on the protection of IT equipment and the availability of the data the equipment contains.

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MECHANICAL STRUCTURES FOR ELECTRICAL AND ELECTRONIC EQUIPMENT – AISLE CONTAINMENT FOR IT CABINETS –

Part 3: Aspects of operational and personal safety

1 Scope

This part of IEC 62966 defines the requirements for operational and personal safety of aisle containments for IT cabinets.

The aim is to provide physical security for the IT equipment installed in the containment using the criteria “availability” and “safety”.

The requirements apply to all operational, working and maintenance procedures.

This document does not apply to ordinary persons, when using installations and equipment.

The requirements described herein are also intended to ensure that it is possible for authorized personnel to enter and remain in the containment (as accessible equipment) and to maintain or upgrade the systems installed in the containment without risk. It should also be possible to evacuate the containment quickly and safely at any time, especially in the event of a fire or any other hazardous situation, whilst reducing the health risk to personnel to a minimum.

Aspects relating to computing, data processing, data storage, building protection or the data centre itself do not fall within the scope of this document. Only those additional aspects arising from the integration of an aisle containment are considered.

The design and positioning of an aisle containment, which is integrated in the data centre, has influence on the following different aspects of operational safety:

a) escape and evacuation plans;

b) escape routes;

c) emergency exits;

d) functional aspects of escape doors;

e) lighting conditions

f) lighting and signposting of escape routes;

g) fire protection.

In this document, these operational safety requirements and recommendations are considered.

To achieve the highest effectiveness, all these requirements are considered as much as possible during the design of an aisle containment.

This document applies to normal operations, not to the initial installation of the containment.

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