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STANDARD

IEC  
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**60364-7-729**

First edition  
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2007-07

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**Low-voltage electrical installations –**

**Part 7-729:**

**Requirements for special  
installations or locations –**

**Operating or maintenance gangways**

**(standards.iteh.ai)**

**Installations électriques à basse tension –**

[IEC 60364-7-729:2007](https://standards.iteh.ai/standards/sist/b3d0051a-972c-419a-8d29-c049a00e4e3a/iec-60364-7-729-2007)

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**Règles pour les installations**

**et emplacements spéciaux –**

**Passages d'entretien ou de service**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

**Part 7-729: Requirements for special installations or locations –  
Operating or maintenance gangways**

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International Standard IEC 60364-7-729 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock.

The text of this standard is based on the following documents:

FDIS	Report on voting
64/1595/FDIS	64/1603/RVD

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

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

The reader's attention is drawn to the fact that Annex B lists all of the "in-some-country" clauses on differing practices of a less permanent nature relating to the subject of this standard.

A list of all the parts in the IEC 60364 series, under the general title *Low-voltage electrical installations*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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## 729.0 Introduction

The requirements of this part of IEC 60364 supplement, modify or replace certain of the general requirements of the other parts of IEC 60364.

The clause numbering of Part 7-729 follows the pattern and corresponding references of IEC 60364. The numbers following the particular number of Part 7-729 are those of the corresponding parts or clauses of IEC 60364.

The absence of reference to a part, clause or subclause means that the corresponding general requirements are applicable.

For operating and maintenance gangways measures of protection against direct contact is covered by this section which replaces clause 481.2.4 of IEC 60364-4-481 – Measures of protection against direct contact.

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## LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

### Part 7-729: Requirements for special installations or locations – Operating or maintenance gangways

#### 729.1 Scope

The requirements of this part of IEC 60364 apply to basic protection and other aspects in restricted access areas with switchgear and controlgear assemblies, including requirements for operating or maintenance gangways.

#### 729.2 Normative references

The following normative documents contain provisions which through reference in this text, constitute provisions of this part of IEC 60364. For dated references, subsequent amendments to, or revisions of any of these publications do not apply.

IEC 60364-1:2005, *Low-voltage electrical installations – Part 1: Fundamental principles, assessment of general characteristics, definitions*

IEC 60364-4-41, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*

#### 729.30 Assessment of general characteristics

Add the following requirements:

For restricted access areas the following apply:

- restricted access areas shall be clearly and visibly marked by appropriate signs;
- unauthorized persons shall not have access to restricted access areas;
- door(s) provided for closed restricted access areas shall allow easy evacuation to the outside by opening without the use of a key, tool or any other device which is not part of the opening mechanism.

#### 729.410.3.7

Replace the paragraph with the following requirements:

In restricted access areas where it is not reasonably practicable to provide protective measures for basic protection (protection against direct contact) in accordance with IEC 60364-4-41, minimum distances are required.

NOTE 1 See Clause 30 of IEC 60364-1 for assessment of general characteristics when deciding to use this method of protection.

NOTE 2 In cases of protective devices with high ratings, such as a large circuit-breaker, greater distances may be necessary to permit withdrawal of the device.

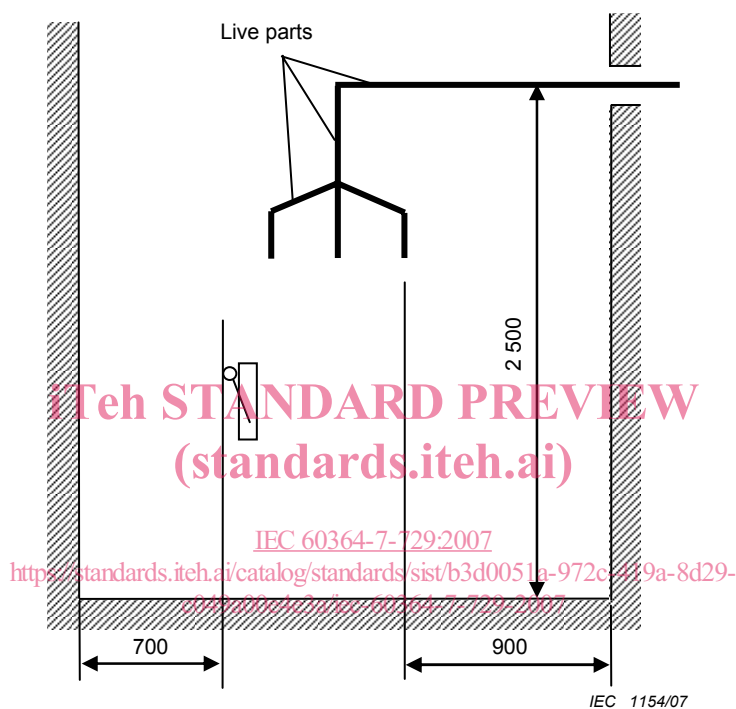


**729.410.3.7.1**

Where the gangway has unprotected live parts arranged on one side only (see Figure 729.1), the minimum distances shall be:

- |  |           |
|--|-----------|
| a) width of gangway between the wall and live parts  | 900 mm;   |
| b) free passage in front of controls (handles, etc.) | 700 mm;   |
| c) height of live parts above the floor              | 2 500 mm. |

*Dimensions in millimetres*



The 2 500 mm height above the floor given as the minimum distance to live parts applies only in the gangway where it is possible for persons to stand or walk.

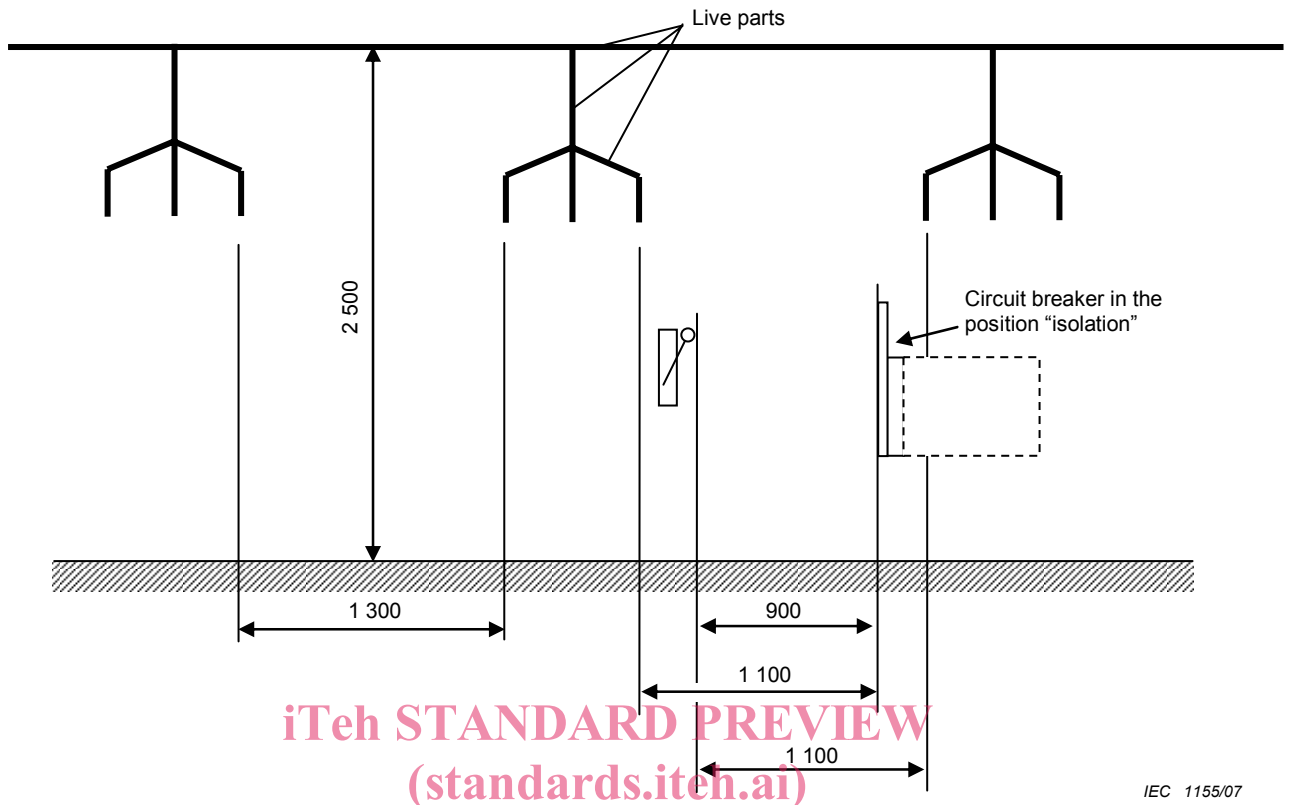
**Figure 729.1 – Gangways in installations with live parts on one side**

**729.410.3.7.2**

Where the gangway has live parts on both sides (see Figure 729.2), the minimum distances shall be:

- |  |           |
|--|-----------|
| a) width of gangway between live parts   | 1 300 mm; |
| b) minimum distance between the front of the handle and the live parts on the opposite side of the gangway | 1 100 mm; |
| c) minimum free passage in front of controls (handles, isolation position of circuit-breakers, etc.)       | 900 mm;   |
| d) height of live parts above the floor  | 2 500 mm. |

Dimensions in millimetres



IEC 1155/07

The 2 500 mm height above the floor given as the minimum distance to live parts applies only in the gangway where it is possible for persons to stand or walk.

Figure 729.2 – Gangways in installations with live parts on both sides

### 729.513 Accessibility

Add the following paragraphs:

#### 729.513.2 Requirements for operating and maintenance gangways

The width of gangways and access areas shall be adequate for work, operational access, emergency access, emergency evacuation and for the movement of equipment.

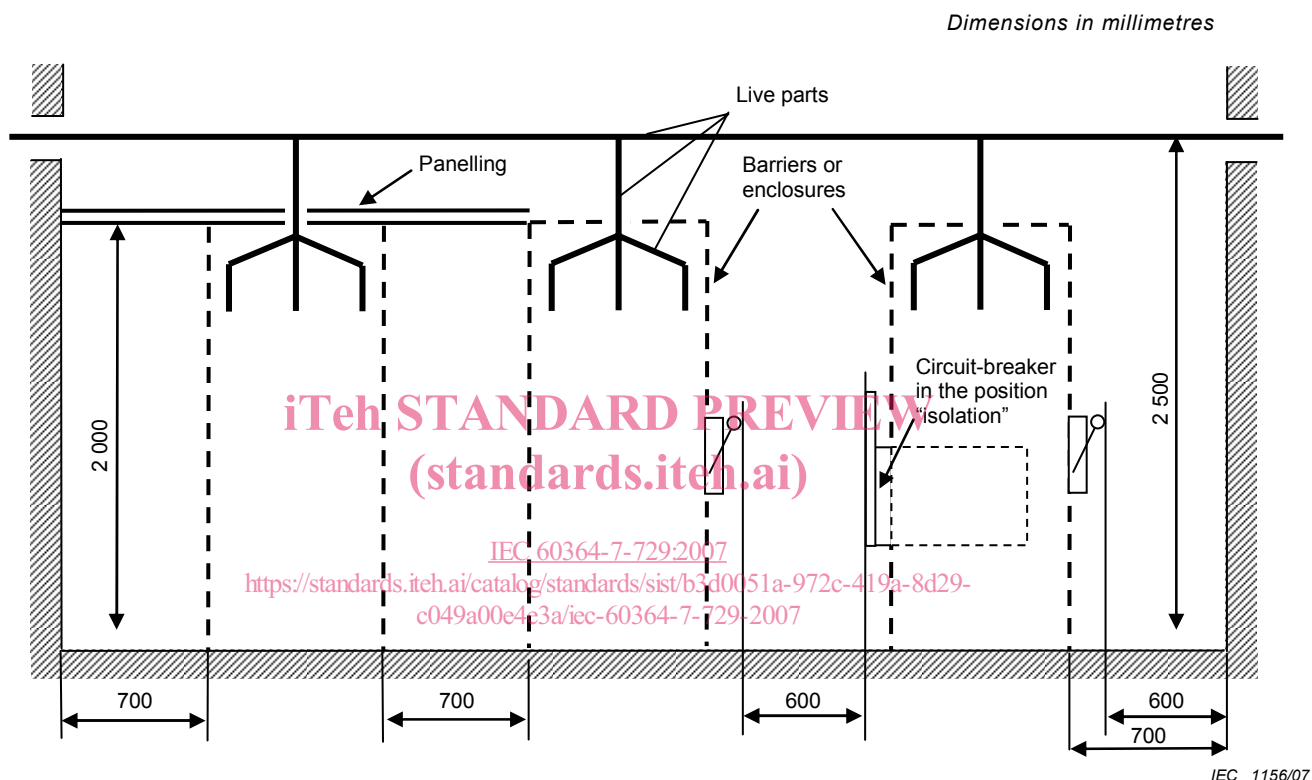
Gangways shall permit equipment doors or hinged panels to be opened to at least 90° (see also Annex A, Clause A.1).

##### 729.513.2.1 Restricted access areas where the protective measure of barriers or enclosures applies

Where the protective measure is provided by barriers or enclosures in accordance with IEC 60364-4-41, the following minimum distances apply (see Figure 729.3):

- |   |           |
|---|-----------|
| a) width of gangways with barriers or enclosures between switch handles and circuit-breakers in position "isolation" or switch handles and the wall | 600 mm    |
| b) width of gangway between barriers or enclosures and other barriers or enclosures, or barriers or enclosures and the wall                         | 700 mm    |
| c) height of panelling above the floor  | 2 000 mm; |
| d) height of live parts above the floor   | 2 500 mm. |

NOTE 1 Where additional workspace is needed e.g. for special switchgear and controlgear assemblies, larger dimensions may be required.



**Figure 729.3 – Gangways in installations where the protective measure of barriers or enclosures applies**

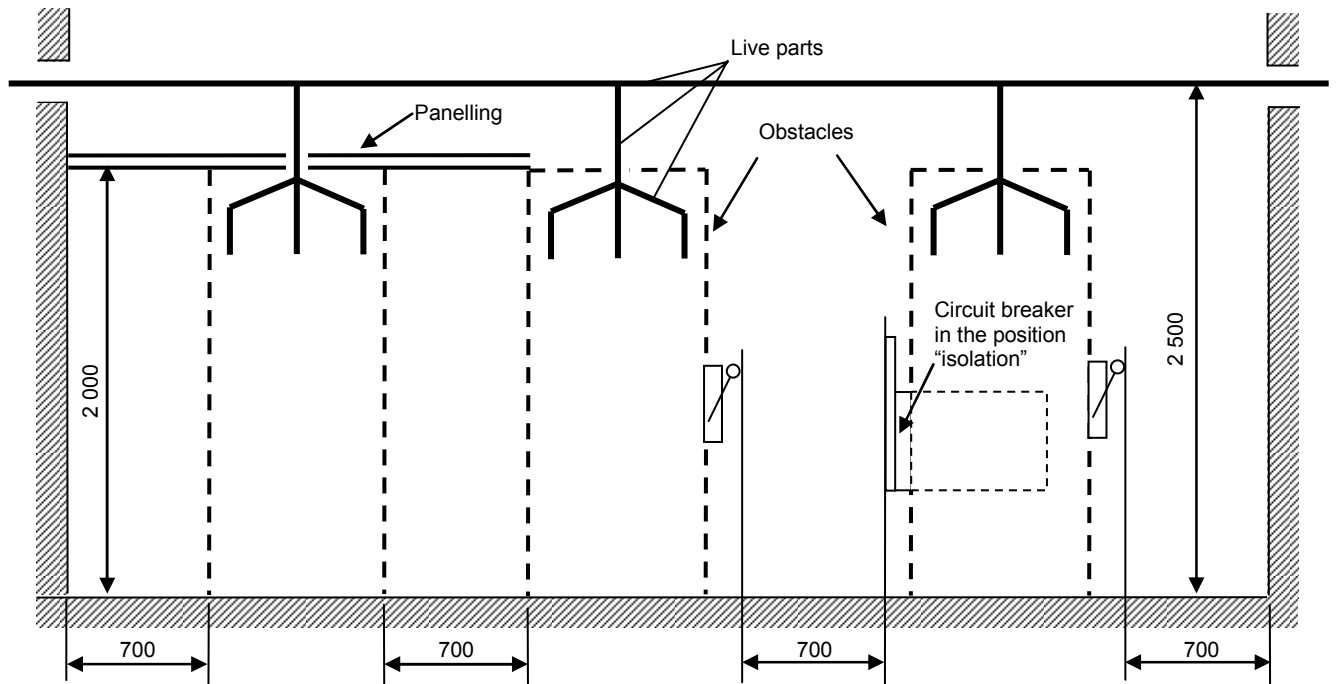
NOTE 2 The above dimensions apply after all parts of the panelling have been mounted and closed and to circuit-breakers in the position "isolation".

#### 729.513.2.2 Restricted access areas where the protective measure of obstacles applies

Where the protective measure of obstacles applies in accordance with IEC 60364-4-41, the following minimum distances apply (see Figure 729.4):

- |   |          |
|---|----------|
| a) width of gangway between obstacles and switch handles, or obstacles and the wall, or switch handles and the wall | 700 mm   |
| b) height of panelling above the floor  | 2 000 mm |
| c) height of live parts above the floor   | 2 500 mm |

Dimensions in millimetres



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**Figure 729.4 – Gangways in installations where the protective measure of obstacles**

**IEC 60364-7-729:2007**

<https://standards.iteh.ai/catalog/standards/sist/b3d0051a-972c-419a-8d29-41909a7301c6/60364-7-729-2007>

NOTE The above dimensions apply after all parts of the panelling have been mounted and closed and to circuit-breakers in the position "isolation".

**729.513.2.3 Access of gangways**

Gangways longer than 10 m shall be accessible from both ends.

NOTE 1 This may be accomplished by placement of the equipment a minimum of 700 mm from the end walls (see Figure 729.5) or by providing an access door, if needed, on the opposite end wall.

Closed restricted access areas with a length exceeding 20 m shall be accessible by doors from both ends.

NOTE 2 For closed restricted access areas with a length exceeding 6 m, accessibility from both ends is recommended.