IEC 60715

Edition 2.0 2017-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

HORIZONTAL STANDARD

NORME HORIZONTALE

Dimensions of low-voltage switchgear and controlgear – Standardized mounting on rails for mechanical support of switchgear, controlgear and accessories

Dimensions de l'appareillage à basse tension – Montage normalisé sur profilés-supports pour le support mécanique des appareillages et de leurs accessoires

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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DIMENSIONS OF LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR – STANDARDIZED MOUNTING ON RAILS FOR MECHANICAL SUPPORT OF SWITCHGEAR, CONTROLGEAR AND ACCESSORIES

FOREWORD

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International Standard IEC 60715 has been prepared by subcommittee 121A: Low-voltage switchgear and controlgear, of IEC technical committee 121: Switchgear and controlgear and their assemblies for low voltage.

This second edition cancels and replaces the first edition published in 1981 and Amendment 1:1995. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) the electrical function of the rail for protective earthing is covered by the relevant product standard.
b) The document has been editorially updated to bring it into compliance with the ISO/IEC Directives, Part 2:2016, and drawings have been updated to bring them in compliance with ISO tolerancing and drawing standards.

It has the status of a horizontal standard in accordance with IEC Guide 108.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
121A/153/FDIS	121A/163/RVD

Full information on the voting for the approval of this International Standard 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.

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- withdrawn,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
- amended.

INTRODUCTION

This document is provided as a horizontal standard. It is necessary to define standardized mounting on rails for mechanical support of low-voltage switchgear and controlgear, electrical accessories, and similar devices.

The user wants them to be easy to fix, remove and rearrange.

Two methods are used for fixing a device on a rail:

– either directly by clipping on the rail (this method is particularly suitable for "top hat" rails or "G" rails);
– or by means of a variety of accessories such as sliding nuts and hooked or T-headed bolts (this method is particularly suitable for "C" rails).

In the case of "G" rails, the first of these methods has been mainly used for mounting terminal blocks which snap in and out of position and are clamped in rows by adjustable end stops.

The rail can take the form of a standard section as an integral part of the enclosure.

Rails are also available of composite sections that combine, for example, "top hat" and "C" section sizes thus accepting devices with various arrangements for mounting.

One or more rails can be used as necessary for fixing devices.

Since rail mounting can affect the performance of equipment, it can be advisable for equipment manufacturers to give guidance in their literature on the suitability for this form of mounting.

DIMENSIONS OF LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR – STANDARDIZED MOUNTING ON RAILS FOR MECHANICAL SUPPORT OF SWITCHGEAR, CONTROLGEAR AND ACCESSORIES

1 Scope

This document specifies dimensional and functional requirements for the compatible mounting of switchgear, controlgear and accessories on some types of rails.

The object of this document is to specify those dimensions that are critical for the correct design of mounting rails and equipment.

The following sections are covered by this document:

– "top hat" section;

– "C" section;

– "G" section.

NOTE 1 Mounting compatibility does not imply functional interchangeability.

Annexes deal with specific steel mounting rails satisfying the requirements of this document, and give additional dimensional data and loading requirements applicable to such rails.

NOTE 2 The detailed design and material of specific steel rails is given in the annexes.

NOTE 3 Other shapes of rails complying with this document not listed in Annex A can be used.

Mounting rails used as a protective conductor using a conducting connection to a protective conductor terminal block are specified in IEC 60947-7-2. In other applications where the mounting rail is used as earthing conductor, the relevant product standard applies.

This document has the status of a horizontal standard in accordance with IEC Guide 108:2006.

This horizontal standard is primarily intended for use by technical committees in the preparation of standards in accordance with the principles laid down in IEC Guide 108.

One of the responsibilities of a technical committee is, wherever applicable, to make use of horizontal standards in the preparation of its publications. The contents of this horizontal standard will not apply unless specifically referred to or included in the relevant publications.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60947-7-2, *Low-voltage switchgear and controlgear – Part 7-2: Ancillary equipment – Protective conductor terminal blocks for copper conductors*