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INTERNATIONAL STANDARD

colour inside

Cable cleats for electrical installations

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CABLE CLEATS FOR ELECTRICAL INSTALLATIONS

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

International Standard IEC 61914 has been prepared by subcommittee 23A: Cable management systems, of IEC technical committee 23: Electrical accessories.

This second edition cancels and replaces the first edition published in 2009. This edition constitutes a technical revision.

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

a) Additional declaration and test for lateral load retention depending on cleat mounting orientation with associated new figures;
b) Additional declaration of the distance between the cable centres in any short-circuit test and associated new figures;
c) Specification of the cable to be used in short-circuit testing and relaxation of the ambient temperature limits for the test;
d) Additional requirement to photograph the short-circuit test arrangement before and after the test and to record more complete details of the cable used;
e) Revised parameters for the test of resistance to UV light.

This edition also includes the following editorial changes with respect to the previous edition:

f) Revised and updated normative references and bibliography;
g) Editorial clarification of definitions;
h) Editorial clarification of procedures for selection of test samples and the testing of cleats designed for more than one cable;
i) Relaxation of some mandrel material requirements;
j) Clarification of the inspection requirements following a short-circuit test and adding the option of either a.c. or d.c. voltage testing following a second short-circuit;
k) Clarification that the resistance to corrosion test applies to all types of fixing;
l) New cleat example illustration;
m) Limitations of use of the formulae in Annex B added.

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

FDIS	Report on voting
23A/786/FDIS	23A/795/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.

In this standard, the following print types are used:

– requirements proper: in roman type;
– *test specifications: in italic type;*
– notes: in smaller roman type.

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CABLE CLEATS FOR ELECTRICAL INSTALLATIONS

1 Scope

This International Standard specifies requirements and tests for cable cleats and intermediate restraints used for securing cable in electrical installations. Cable cleats provide resistance to electromechanical forces where declared. This standard includes cable cleats that rely on a mounting surface specified by the manufacturer for axial and/or lateral retention of cables.

This standard does not apply to:

– cable glands;

– cable ties.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60060-1:~~1989~~ 2010, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60695-11-5:2004, *Fire hazard testing – Part 11-5: Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance*

~~ISO 868:2003, *Plastics and ebonite – Determination of indentation hardness by means of a durometer (Shore hardness)*~~

ISO 4287:1997, *Geometrical product specifications (GPS) – Surface texture: Profile method – Terms, definitions and surface texture parameters*

ISO 4892-2:2006, *Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon-arc lamps*

ISO 9227:~~2006~~ 2012, *Corrosion tests in artificial atmospheres – Salt spray tests*

IEC 61914

Edition 2.0 2015-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Cable cleats for electrical installations

Brides de câbles pour installations électriques

IEC 61914:2015-11(en-fr)

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SOMMAIRE

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

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BRIDES DE CABLES POUR INSTALLATIONS ÉLECTRIQUES

AVANT-PROPOS

1) La Commission Electrotechnique Internationale (IEC) est une organisation mondiale de normalisation composée de l'ensemble des comités électrotechniques nationaux (Comités nationaux de l'IEC). L'IEC a pour objet de favoriser la coopération internationale pour toutes les questions de normalisation dans les domaines de l'électricité et de l'électronique. A cet effet, l'IEC – entre autres activités – publie des Normes internationales, des Spécifications techniques, des Rapports techniques, des Spécifications accessibles au public (PAS) et des Guides (ci-après dénommés "Publication(s) de l'IEC"). Leur élaboration est confiée à des comités d'études, aux travaux desquels tout Comité national intéressé par le sujet traité peut participer. Les organisations internationales, gouvernementales et non gouvernementales, en liaison avec l'IEC, participent également aux travaux. L'IEC collabore étroitement avec l'Organisation Internationale de Normalisation (ISO), selon des conditions fixées par accord entre les deux organisations.
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La Norme internationale IEC 61914 a été établie par le sous-comité 23A: Systèmes de câblage, du comité d'études 23 de l'IEC: Petit appareillage.

Cette deuxième édition annule et remplace la première édition parue en 2009. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

a) Déclaration et test complémentaires pour le maintien latéral à la charge en fonction de l'orientation de montage des brides, et ajout de nouvelles figures associées;
b) Déclaration supplémentaire de la distance entre les centres des câbles pour tout essai de court-circuit, et mise à jour des figures associées;
c) Définition du type de câble à utiliser pour les essais de court-circuit et assouplissement des limites de température ambiante durant les essais;

d) Ajout de photographies illustrant le montage d'essai avant et après l'essai de court-circuit et exigence supplémentaire de consigner les caractéristiques détaillées du câble utilisé;

e) Modifications des paramètres de l'essai de tenue aux rayonnements lumineux ultraviolets.

Cette édition inclut également les modifications éditoriales suivantes par rapport à l'édition précédente:

f) Mise à jour des références normatives et de la bibliographie;

g) Clarification éditoriale des définitions;

h) Clarification éditoriale des règles de choix des échantillons d'essai et des essais de brides de câbles conçues pour plusieurs câbles;

i) Assouplissement de certaines exigences relatives aux matériaux des mandrins;

j) Clarification des exigences de contrôle après un essai de court-circuit et ajout de l'option d'essai en tension alternative ou en tension continue après un deuxième court-circuit;

k) Clarification de l'application de l'essai de tenue à la corrosion à tous les types de fixations;

l) Nouvelle illustration d'exemple de bride de câbles;

m) Limitations de l'utilisation des formules de l'Annexe B.

Le texte de cette norme est issu des documents suivants:

FDIS	Rapport de vote
23A/786/FDIS	23A/795/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette norme.

Cette publication a été rédigée selon les Directives ISO/IEC, Partie 2.

Dans cette norme, les caractères d'imprimerie suivants sont utilisés:

– exigences proprement dites: caractères romains;

– *modalités d'essais: caractères italiques*;

– notes: petits caractères romains.

Le comité a décidé que le contenu de cette publication ne sera pas modifié avant la date de stabilité indiquée sur le site web de l'IEC sous "http://webstore.iec.ch" dans les données relatives à la publication recherchée. A cette date, la publication sera

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BRIDES DE CABLES POUR INSTALLATIONS ÉLECTRIQUES

1 Domaine d'application

La présente Norme internationale spécifie les exigences et essais pour brides de câbles et dispositifs intermédiaires de tenue utilisés pour la fixation de câbles dans des installations électriques. Les brides de câbles fournissent une résistance aux forces électromécaniques lorsque cela est déclaré. La présente norme inclut les brides de câbles qui reposent sur une surface de montage spécifiée par le fabricant pour le maintien axial et/ou latéral des câbles.

La présente norme ne couvre pas:

- les presse-étoupes;
- les colliers.

2 Références normatives

Les documents suivants sont cités en référence de manière normative, en intégralité ou en partie, dans le présent document et sont indispensables pour son application. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60060-1:2010, *Technique des essais à haute tension – Partie 1: Définitions et exigences générales*

IEC 60695-11-5:2004, *Essais relatifs aux risques du feu – Partie 11-5: Flammes d'essai – Méthode d'essai au brûleur-aiguille – Appareillage, dispositif d'essai de vérification et lignes directrices*

ISO 4287:1997, *Spécification géométrique des produits (GPS) – Etat de surface: Méthode du profil – Termes, définitions et paramètres d'état de surface*

ISO 4892-2:2006, *Plastiques – Méthodes d'exposition à des sources lumineuses de laboratoire – Partie 2: Sources à arc au xénon*

ISO 9227:2012, *Essais de corrosion en atmosphères artificielles – Essais aux brouillards salins*