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INTERNATIONAL STANDARD

colour inside

Low-voltage switchgear and controlgear assemblies – Part 4: Particular requirements for assemblies for construction sites (ACS)

INTERNATIONAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES –

Part 4: Particular requirements for assemblies for construction sites (ACS)

FOREWORD

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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 61439-4:2012. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC 61439-4 has been prepared by subcommittee 121B: Low-voltage switchgear and controlgear assemblies, of IEC technical committee 121: Switchgear and controlgear and their assemblies for low voltage. It is an International Standard.

This second edition of IEC 61439-4 cancels and replaces the first edition published in 2012. This edition constitutes a technical revision.

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

a) alignment with IEC 61439-1:2020 regarding the structure and technical content, as applicable.

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

Draft	Report on voting
121B/183/FDIS	121B/188/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

This document is to be read in conjunction with IEC 61439-1:2020. The provisions of the general rules dealt with in IEC 61439-1:2020 are only applicable to this document insofar as they are specifically cited. When this document states “addition”, “modification” or “replacement”, the relevant text in IEC 61439-1:2020 is to be adapted accordingly.

Subclauses that are numbered with a 101 (102, 103, etc.) suffix are additional to the same subclause in IEC 61439-1:2020.

Tables and figures in this document that are new are numbered starting with 101.

New annexes in this document are lettered AA, BB, etc.

In this document, terms written in small capitals are defined in Clause 3.

The reader’s attention is drawn to the fact that Annex N lists all of the “in-some-country” clauses on differing practices of a less permanent nature relating to the subject of this document.

A list of all parts of the IEC 61439 series, under the general title *Low-voltage switchgear and controlgear assemblies,* 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be:

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LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES –

Part 4: Particular requirements for assemblies for construction sites (ACS)

1 Scope

NOTE Throughout this document, the abbreviation ACS (assembly for construction site, see 3.1.101) is used for a low-voltage switchgear and controlgear assembly intended for use on construction and similar sites.

This document defines the specific requirements of ACS as follows:

– assemblies for which the rated voltage does not exceed 1 000 V in case of AC or 1 500 V in case of DC;

– assemblies where the nominal primary voltage and the nominal secondary voltage of transformers incorporated in ACS are within the limits specified above;

– assemblies intended for use on construction sites, both indoors and outdoors, i.e. temporary places of work to which the public do not generally have access and where building construction, installation, repairs, alteration or demolition of property (buildings) or civil engineering (public works) or excavation or any other similar operations are carried out;

– transportable (semi-fixed) or MOBILE assemblies with enclosure.

The manufacture and/or assembly ~~may~~ can be carried out by an entity other than by the original manufacturer (see 3.10.1 of IEC 61439-1:2020).

This document does not apply to individual devices and self-contained components, such as motor starters, fuse switches, electronic equipment, etc. which will comply with the relevant product standards.

This document does not apply to assemblies for use in the administrative centres of construction sites (offices, cloakrooms, ~~ASSEMBLY~~ meeting rooms, canteens, restaurants, dormitories, toilets, etc.).

Requirements for electrical protection provided by equipment manufactured according to this document are given in IEC 60364-7-704.

2 Normative references

This clause of IEC 61439-1:2020 is applicable except as follows:

Addition:

IEC 60068-2-27~~:2008~~, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60068-2-42~~:2003~~, *Environmental testing – Part 2-42: Tests – Test Kc: Sulphur dioxide test for contacts and connections*

IEC 60364-7-704:~~2005~~2017, *Low-voltage electrical installations – Part 7-704: Requirements for special installations or locations – Construction and demolition site installations*

~~IEC 61140:2001, *Protection against electric shock – Common aspects for installation and equipment*~~

IEC 61439-1:~~2011~~2020, *Low-voltage switchgear and controlgear assemblies – Part 1: General rules*

IEC 61558-2-23, *Safety of transformers, reactors, power supply units and combinations thereof – Part 2-23: Particular requirements and tests for transformers and power supply units for construction sites*

IEC 61439-4

Edition 2.0 2023-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Low-voltage switchgear and controlgear assemblies –
Part 4: Particular requirements for assemblies for construction sites (ACS)

Ensembles d'appareillage à basse tension –
Partie 4: Exigences particulières pour ensembles de chantiers (EC)



IEC 61439-4:2023-09(en-fr)

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IEC 60068-2-42*, Environmental testing – Part 2-42: Tests – Test Kc: Sulphur dioxide test for contacts and connections*

IEC 60364-7-704:2017, *Low-voltage electrical installations – Part 7-704: Requirements for special installations or locations – Construction and demolition site installations*

IEC 61439-1:2020, *Low-voltage switchgear and controlgear assemblies – Part 1: General rules*

IEC 61558-2-23, *Safety of transformers, reactors, power supply units and combinations thereof – Part 2-23: Particular requirements and tests for transformers and power supply units for construction sites*

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

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ENSEMBLES D'APPAREILLAGE À BASSE TENSION –

Partie 4: Exigences particulières pour ensembles de chantiers (EC)

AVANT-PROPOS

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L'IEC 61439-4 a été établie par le sous-comité 121B: Ensembles d'appareillages à basse tension, du comité d'études 121 de l'IEC: Appareillages et ensembles d'appareillages basse tension. Il s'agit d'une Norme internationale.

Cette deuxième édition de l'IEC 61439-4 annule et remplace la première édition parue en 2012. Cette édition constitue une révision technique.

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

a) alignement sur l'IEC 61439-1:2020 en ce qui concerne la structure et le contenu technique, selon le cas.

Le texte de ce document est issu des documents suivants:

Projet	Rapport de vote
121B/183/FDIS	121B/188/RVD

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

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/publications.

Le présent document doit être lu conjointement avec l'IEC 61439-1:2020. Les dispositions des règles générales traitées dans l'IEC 61439-1:2020 s'appliquent uniquement au présent document dans la mesure où elles sont spécifiquement citées. Lorsque le présent document mentionne "addition", "modification" ou "remplacement", le texte correspondant de l'IEC 61439-1:2020 doit être adapté en conséquence.

Les paragraphes qui sont numérotés avec un suffixe 101 (102, 103, etc.) sont ajoutés au même paragraphe de l'IEC 61439-1:2020.

Les nouveaux tableaux et figures du présent document sont numérotés à partir de 101.

Les nouvelles annexes du présent document sont désignées AA, BB, etc.

Dans le présent document, les termes écrits en petites majuscules sont définis à l'Article 3.

L'attention du lecteur est attirée sur le fait que l'Annexe N énumère tous les articles qui traitent des différences à caractère moins permanent inhérentes à certains pays, concernant le sujet du présent document.

Une liste de toutes les parties de la série IEC 61439, publiées sous le titre général *Ensembles d'appareillage à basse tension*, se trouve sur le site web de l'IEC.

Le comité a décidé que le contenu de ce document ne sera pas modifié avant la date de stabilité indiquée sur le site web de l'IEC sous webstore.iec.ch dans les données relatives au document recherché. À cette date, le document sera

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- amendé.

ENSEMBLES D'APPAREILLAGE À BASSE TENSION –

Partie 4: Exigences particulières pour ensembles de chantiers (EC)

1 Domaine d'application

NOTE Dans le présent document, l'abréviation EC (ensemble de chantier, voir 3.1.101) désigne un ensemble d'appareillage à basse tension destiné à être utilisé sur des chantiers ou sites similaires.

Le présent document définit les exigences particulières des EC comme suit:

– ensembles dont la tension assignée ne dépasse pas 1 000 V en courant alternatif ou 1 500 V en courant continu;
– ensembles dont les valeurs nominales des tensions primaire et secondaire des transformateurs incorporés dans les EC se situent dans les limites spécifiées ci-dessus;
– ensembles destinés à être utilisés sur des chantiers, à l'intérieur comme à l'extérieur, c'est-à-dire des lieux de travail temporaires qui ne sont généralement pas accessibles au public et où sont exécutés des travaux de construction, d'installation, de réparation, de modification ou de démolition d'immeubles (bâtiments) ou d'ouvrage de génie civil (travaux publics) ou encore des travaux de terrassement ou tout autre travail analogue;
– ensembles de type transportable (semi-fixe) ou MOBILE avec enveloppe.

La fabrication et/ou l'assemblage peuvent être réalisés par une entité qui n'est pas le constructeur d'origine (voir 3.10.1 de l'IEC 61439-1:2020).

Le présent document ne s'applique pas aux appareils individuels et aux composants indépendants, tels que les démarreurs de moteurs, fusibles-interrupteurs, matériels électroniques, etc. qui sont conformes aux normes de produit applicables.

Le présent document ne s'applique pas aux ensembles destinés à être utilisés dans les locaux de service des chantiers (bureaux, vestiaires, salles de réunion, cantines, restaurants, dortoirs, locaux sanitaires, etc.).

Les exigences de protection électrique fournies par l'équipement fabriqué selon le présent document sont données dans l'IEC 60364-7-704.

2 Références normatives

L'article de l'IEC 61439-1:2020 s'applique, avec les exceptions suivantes:

Addition:

IEC 60068-2-27, *Essais d'environnement – Partie 2-27: Essais – Essai Ea et guide: Chocs*

IEC 60068-2-42, *Essais d'environnement – Partie 2-42: Essais – Essai Kc: Essai à l'anhydride sulfureux pour contacts et connexions*

IEC 60364-7-704:2017, *Installations électriques à basse tension – Partie 7-704: Exigences pour les installations ou emplacements spéciaux – Installations de chantiers de construction et de démolition*

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