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Standards

Irish Standard  
I.S. EN 61439-2:2011

# Low-voltage switchgear and controlgear assemblies -- Part 2: Power switchgear and controlgear assemblies (IEC 61439-2:2011 (EQV))

## I.S. EN 61439-2:2011

*Incorporating amendments/corrigenda issued since publication:*

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61439-2**

October 2011

ICS 29.130.20

Supersedes EN 61439-2:2009

English version

**Low-voltage switchgear and controlgear assemblies -  
Part 2: Power switchgear and controlgear assemblies  
(IEC 61439-2:2011)**

Ensembles d'appareillage  
à basse tension -  
Partie 2: Ensembles d'appareillage de  
puissance  
(CEI 61439-2:2011)

Niederspannungs-  
Schaltgerätekombinationen -  
Teil 2: Energie-  
Schaltgerätekombinationen  
(IEC 61439-2:2011)

This European Standard was approved by CENELEC on 2011-09-23. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## I.S. EN 61439-2:2011

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### Foreword

The text of document 17D/440/FDIS, future edition 2 of IEC 61439-2, prepared by SC 17D, "Low-voltage switchgear and controlgear assemblies", of IEC/TC 17, "Switchgear and controlgear" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61439-2:2011.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-06-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-09-23

This document supersedes EN 61439-2:2009.

EN 61439-2:2011 includes the following significant technical changes with respect to EN 61439-2:2009:

- clarification of the scope;
- revision of requirements for withdrawable and removable parts;
- revision of mechanical impact test (10.2.6);
- extension of Table 101;
- review of Table BB.1 to reflect modified requirements and verifications;
- general editorial review.

This standard is to be read in conjunction with EN 61439-1. The provisions of the general rules dealt with in EN 61439-1 (hereinafter referred to as Part 1) are only applicable to this standard insofar as they are specifically cited. When this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

Subclauses that are numbered with a 101 (102, 103, etc.) suffix are additional to the same subclause in Part 1.

Tables and figures in this Part 2 that are new are numbered starting with 101.

New annexes in this Part 2 are lettered AA, BB, etc.

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

NOTE Throughout the EN 61439 series of standards, the term ASSEMBLY (see 3.1.1 of Part 1) is used for a low-voltage switchgear and controlgear assembly.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive see informative Annex ZZ, which is an integral part of this document.

### Endorsement notice

The text of the International Standard IEC 61439-2:2011 was approved by CENELEC as a European Standard without any modification.

## **Annex ZA** (normative)

### **Normative references to international publications with their corresponding European publications**

The following referenced documents are indispensable for the application 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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

#### ***Addition to Annex ZA of EN 61439-1:***

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60947-3	2008	Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch- disconnectors and fuse-combination units	EN 60947-3	2009
IEC 61140	-	Protection against electric shock - Common aspects for installation and equipment	EN 61140	-
IEC 61439-1	2011	Low-voltage switchgear and controlgear assemblies - Part 1: General rules	EN 61439-1	2011

**Annex ZZ**  
(informative)

**Coverage of Essential Requirements of EC Directive 2004/108/EC**

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Article 1 of Annex I of the EC Directive 2004/108/EC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directives concerned.

**WARNING:** Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES –**

#### **Part 2: Power switchgear and controlgear assemblies**

### 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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- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61439-2 has been prepared by subcommittee 17D: Low-voltage switchgear and controlgear assemblies, of IEC technical committee 17: Switchgear and controlgear.

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

This second edition includes the following significant technical changes with respect to the last edition of IEC 61439-2:

- clarification of the scope;
- revision of requirements for withdrawable and removable parts;
- revision of mechanical impact test (10.2.6);
- extension of Table 101;



- review of Table BB.1 to reflect modified requirements and verifications;
- general editorial review.

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

FDIS	Report on voting
17D/440/FDIS	17D/445/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.

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

Subclauses that are numbered with a 101 (102, 103, etc.) suffix are additional to the same subclause in Part 1.

Tables and figures in this Part 2 that are new are numbered starting with 101.

New annexes in this Part 2 are lettered AA, BB, etc.

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

NOTE Throughout the IEC 61439 series of standards, the term ASSEMBLY (see 3.1.1 of Part 1) is used for a low-voltage switchgear and controlgear assembly.

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 publication will remain unchanged until the stability 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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES –

### Part 2: Power switchgear and controlgear assemblies

#### 1 Scope

NOTE 1 Throughout this part, the abbreviation PSC-ASSEMBLY (see 3.1.101) is used for a power switchgear and controlgear ASSEMBLY.

This part of IEC 61439 defines the specific requirements of power switchgear and controlgear assemblies (PSC-ASSEMBLIES) as follows:

- ASSEMBLIES for which the rated voltage does not exceed 1 000 V in case of a.c. or 1 500 V in case of d.c.;
- stationary or movable ASSEMBLIES with or without enclosure;
- ASSEMBLIES intended for use in connection with the generation, transmission, distribution and conversion of electric energy, and for the control of electric energy consuming equipment;
- ASSEMBLIES designed for use under special service conditions, for example in ships and in rail vehicles provided that the other relevant specific requirements are complied with;

NOTE 2 Supplementary requirements for ASSEMBLIES in ships are covered by IEC 60092-302.

- ASSEMBLIES designed for electrical equipment of machines. Supplementary requirements for ASSEMBLIES forming part of a machine are covered by the IEC 60204 series.

This standard applies to all ASSEMBLIES whether they are designed, manufactured and verified on a one-off basis or fully standardised and manufactured in quantity.

The manufacture and/or assembly may be carried out other than by the original manufacturer (see 3.10.1).

This standard 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 standard does not apply to the specific types of ASSEMBLIES covered by other parts of IEC 61439. For ASSEMBLIES not covered by other parts this part applies.

#### 2 Normative references

This clause of Part 1 is applicable except as follows.

*Addition:*

IEC 60947-3:2008, *Low-voltage switchgear and controlgear – Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units*

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

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