



SLOVENSKI STANDARD

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Nadomešča:
SIST EN 60439-5:2007

Nizkonapetostne stikalne in krmilne naprave - 5. del: Sestavi za distribucijo električne energije v javnih omrežjih (IEC 61439-5:2010)

Low-voltage switchgear and controlgear assemblies - Part 5: Assemblies for power distribution in public networks (IEC 61439-5:2010)

Niederspannungs-Schaltgerätekombinationen - Teil 5: Schaltgerätekombinationen in öffentlichen Energieverteilungsnetzen (IEC 61439-5:2010)

Ensembles d'appareillage à basse tension - Partie 5: Ensembles pour réseaux de distribution publique (CEI 61439-5:2010)

Ta slovenski standard je istoveten z: EN 61439-5:2011

ICS:

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29.240.99	Druga oprema v zvezi z omrežji za prenos in distribucijo električne energije	Other equipment related to power transmission and distribution networks

SIST EN 61439-5:2011

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61439-5

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Supersedes EN 60439-5:2006

English version

**Low-voltage switchgear and controlgear assemblies -
Part 5: Assemblies for power distribution in public networks
(IEC 61439-5:2010)**

Ensembles d'appareillage
à basse tension -
Partie 5: Ensembles pour réseaux de
distribution publique
(CEI 61439-5:2010)

Niederspannungs-
Schaltgerätekombinationen -
Teil 5: Schaltgerätekombinationen in
öffentlichen Energieverteilungsnetzen
(IEC 61439-5:2010)

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This European Standard was approved by CENELEC on 2011-01-03. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

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Foreword

The text of document 17D/422/FDIS, future edition 1 of IEC 61439-5, 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 was approved by CENELEC as EN 61439-5 on 2011-01-03.

This European Standard supersedes EN 60439-5:2006.

This EN 61439-5:2011 includes the following significant technical changes with respect to EN 60439-5:2006:

- alignment on EN 61439-1 regarding the structure and technical content, as applicable;
- introduction of new verifications, accordingly;
- harmonisation of the requirements of substation cable distribution boards and cable distribution cabinets, thereby eliminating the need to identify and define two categories of assembly;
- simpler standard as a result of a reduction in the number of assembly types defined and the acronyms used to identify the different assemblies.

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

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2011-10-03
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2016-01-03

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 5 that are new are numbered starting with 101.

New annexes in this Part 5 are lettered AA, BB, etc.

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

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 2004/108/EC. See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61439-5:2010 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.

Annex ZA of Part 1 applies with the following additions.

Addition:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60269-1	-	Low-voltage fuses - Part 1: General requirements	EN 60269-1	-
IEC 60695-11-10	1999	Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods	EN 60695-11-10	1999
IEC 61439-1 (mod)	2009	Low-voltage switchgear and controlgear assemblies - Part 1: General rules	EN 61439-1	2009
ISO 6506-1	-	Metallic materials - Brinell hardness test - Part 1: Test method	EN ISO 6506-1	-
ISO 9223	1992	Corrosion of metals and alloys - Corrosivity of atmosphere - Classification	-	-

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 Directive 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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Edition 1.0 2010-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Low-voltage switchgear and controlgear assemblies –
Part 5: Assemblies for power distribution in public networks**

**Ensembles d'appareillage à basse tension –
Partie 5: Ensembles pour réseaux de distribution publique**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES –**Part 5: Assemblies for power distribution in public networks**

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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- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 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 61439-5 has been prepared by subcommittee 17D: Low-voltage switchgear and controlgear assemblies, of IEC technical committee 17: Switchgear and controlgear.

This first edition of IEC 61439-5 cancels and replaces the second edition of IEC 60439-5 (2006), and constitutes a technical revision.

This edition of IEC 61439-5 includes the following significant technical changes with respect to the latest edition of IEC 60439-5:

- alignment on IEC 61439-1 regarding the structure and technical content, as applicable;
- introduction of new verifications, accordingly;
- harmonisation of the requirements of substation cable distribution boards and cable distribution cabinets, thereby eliminating the need to identify and define two categories of assembly;
- simpler standard as a result of a reduction in the number of assembly types defined and the acronyms used to identify the different assemblies.

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

FDIS	Report on voting
17D/422/FDIS	17D/430/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 5 that are new are numbered starting with 101.

New annexes in this Part 5 are lettered AA, BB, etc.

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

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 5: Assemblies for power distribution in public networks

1 Scope

This clause of Part 1 applies with the following additions.

Addition:

This standard gives specific requirements for public electricity network distribution assemblies (PENDAs), which are stationary assemblies verified by verification tests, as defined in this standard. These ASSEMBLIES are used for the distribution of electrical energy in three-phase systems (see Figure 101 for a typical distribution network). Open type ASSEMBLIES are not covered by this standard.

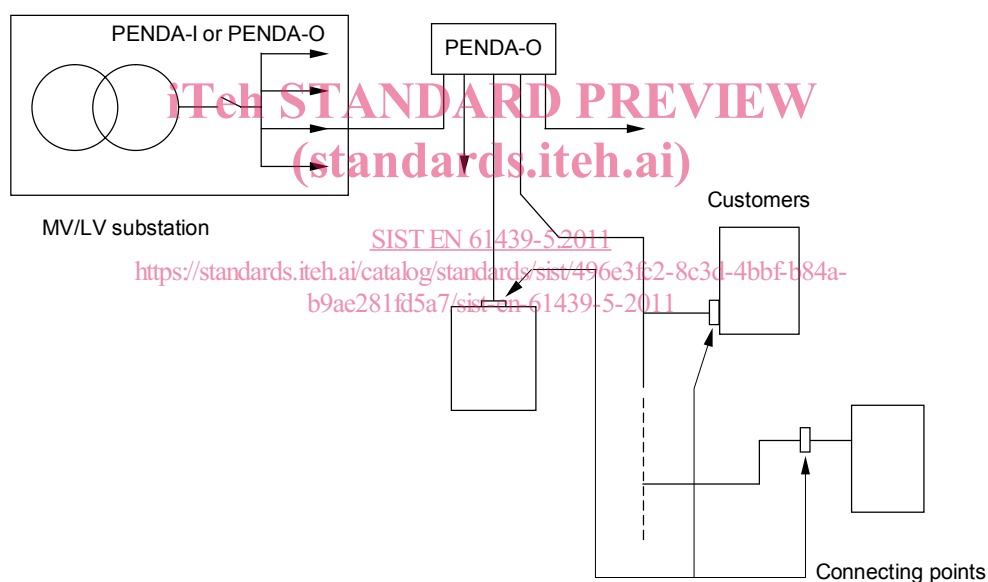


Figure 101 – Typical distribution network

The object of this standard is to state the definitions and to specify the service conditions, construction requirements, technical characteristics and tests for PENDAs. Network parameters may require tests at higher performance levels.

NOTE 1 If a PENDA is equipped with additional equipment (for example meters), in such a way that the main function is changed considerably, then other standards may also apply as agreed between user and manufacturer (see 8.5).

NOTE 2 Where local regulations and practices permit, a PENDA according to this standard may be used in other than public networks.

PENDAs are suitable for installation in places where only skilled persons have access for their use, however, outdoor types may be installed in situations that are accessible to ordinary persons.

2 Normative references

This clause of Part 1 applies with the following additions.

Addition:

IEC 60269-1, *Low-voltage fuses – Part 1: General requirements*

IEC 60695-11-10:1999, *Fire hazard testing – Part 11-10: Test flames – 50 W horizontal and vertical flame test methods*

IEC 61439-1:2009, *Low-voltage switchgear and controlgear assemblies – Part 1: General rules*

ISO 6506-1, *Metallic materials – Brinell hardness test – Part 1: Test method*

ISO 9223:1992, *Corrosion of metals and alloys – Corrosivity of atmospheres – Classification*

3 Terms and definitions

This clause of Part 1 applies with the following modifications.

3.1 General terms

Additional terms:

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3.1.101

public electricity network distribution ASSEMBLY
PENDA

ASSEMBLY, generally for installation in a public electricity network which in use, receives electrical energy from one or more supplies and distributes that energy through one or more cables to other equipment

NOTE 1 A PENDA is installed, operated and maintained solely by skilled persons.

NOTE 2 Some forms of a PENDA were previously known as a cable distribution cabinet (CDC).

3.1.101.1

outdoor public electricity network distribution ASSEMBLY
PENDA-O

cubicle type public electricity network distribution ASSEMBLY that is suitable for outdoor installation in places that may, or may not, be accessible to the public

3.1.101.2

indoor public electricity network distribution ASSEMBLY
PENDA-I

public electricity network distribution ASSEMBLY suitable for installation indoors, generally without an enclosure, but including all structural parts necessary to support busbars, functional units and other ancillary devices, necessary to complete the ASSEMBLY

3.3 External design of ASSEMBLIES

3.3.1

open-type ASSEMBLY

This term of Part 1 does not apply.