Madalpingelised aparaadikoosted. Osa 5: Avalike elektrivõrkude elektrijaotuskoosted

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

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 61439-5:2011 sisaldab Euroopa standardi EN 61439-5:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 61439-5:2011 consists of the English text of the European standard EN 61439-5:2011.
Standard on kinnitatud Eesti Standardikeskuse 28.02.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 28.02.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 21.01.2011.	Date of Availability of the European standard text 21.01.2011.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 29.130.20

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61439-5

January 2011

ICS 29.130.20

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)

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 61439-5:2011 E

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 catagories 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:

Publication	Year	Title	EN/HD	Year
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.

CONTENTS

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.

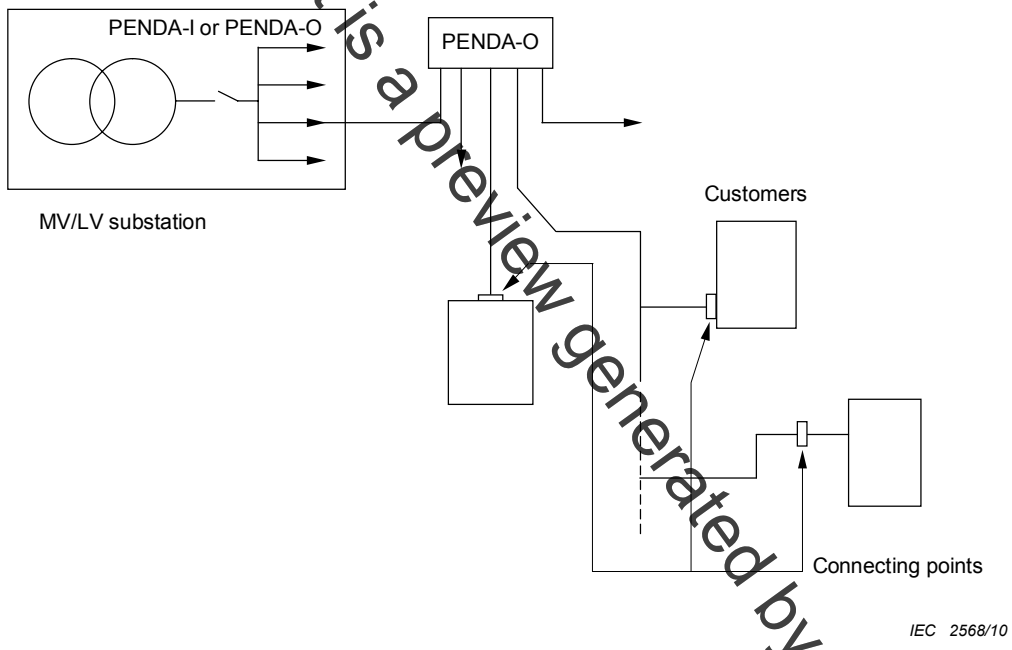

Figure 101 – Typical distribution network

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:

3.1.101
public electricity network distribution ASSEMBLY
PENDA
ASSEMBLY, generally for installation in a public electricty 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 previoulsy 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.