

Sestavi nizkonapetostnih stikalnih in krmilnih naprav – 5. del: Posebne zahteve za sestave, predvidene za zunanjo postavitve na javnih mestih – Kabelske razdelilne omare (CDC) za elektroenergetska omrežja

Low-voltage switchgear and controlgear assemblies -- Part 5: Particular requirements for assemblies intended to be installed outdoors in public places - Cable distribution cabinets (CDCs) for power distribution in networks

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Niederspannung-Schaltgerätekombinationen -- Teil 5: Besondere Anforderungen an Niederspannung-Schaltgerätekombinationen, die im Freien an öffentlich zugängigen Plätzen aufgestellt werden - Kabelverteilerschränke in Energieversorgungsnetzen

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Ensembles d'appareillage à basse tension -- Partie 5: Règles particulières pour les ensembles destinés à être installés à l'extérieur, en des lieux publics - Ensembles d'appareillage pour réseaux de distribution (ERD)

Ta slovenski standard je istoveten z: EN 60439-5:1996

ICS:

29.130.20	Nizkonapetostne stikalne in krmilne naprave	Low voltage switchgear and controlgear
29.240.99	Öi v * aA] i ^ { aA Á ç ^ : aA [{ i ^ 0 aA aA i ^ } [• / aA åã dã v & aA A i \ dã } ^ A } ^ i * aA	Other equipment related to power transmission and distribution networks

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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60439-5

April 1996

ICS 29.120.60

Descriptors: Electrical equipment, low voltage switchgear, bank of electric equipment, installation, exterior, electric power distribution, equipment specification, design, electrical properties, safety requirement, protection against electric shock, degree of protection, test

English version

**Low-voltage switchgear and controlgear assemblies
Part 5: Particular requirements for assemblies intended to
be installed outdoors in public places
Cable distribution cabinets (CDCs) for power distribution in networks
(IEC 439-5:1996)**

Ensembles d'appareillage à basse
tension
Partie 5: Règles particulières pour
les ensembles destinés à être installés
à l'extérieur, en des lieux publics
Ensembles d'appareillage pour
réseaux de distribution (ERD)
(CEI 439-5:1996)

Niederspannung-
Schaltgerätekombinationen
Teil 5: Besondere Anforderungen
an Niederspannung-
Schaltgerätekombinationen, die im
Freien an öffentlich zugängigen
Plätzen aufgestellt werden
Kabelverteilerschränke in
Energieversorgungsnetzen
(IEC 439-5:1996)

This European Standard was approved by CENELEC on 1996-03-05. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 17D/161/FDIS, future edition 1 of IEC 439-5, 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 60439-5 on 1996-03-05.

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) 1996-12-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1996-12-01

For products which have complied with the relevant national standard before 1996-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2001-12-01.

Annexes designated "normative" are part of the body of the standard.
In this standard, annexes A and ZA are normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 439-5:1996 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)**Normative references to international publications
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 68-2-11	1981	Basic environmental testing procedures Part 2: Tests - Test Ka: Salt mist	HD 323.2.11 S1	1988
IEC 68-2-30	1980	Part 2: Tests - Test Db and guidance: Damp heat, cyclic (12 + 12 hour cycle)	HD 323.2.30 S3 ¹⁾	1988
IEC 238 (mod)	1991	Edison screw lampholders	EN 60238 ²⁾ + corr. July	1992 1992
IEC 269-1	1986	Low-voltage fuses Part 1: General requirements	EN 60269-1	1989
IEC 439-1	1992	Low-voltage switchgear and controlgear assemblies Part 1: Type-tested and partially type-tested assemblies	EN 60439-1 ³⁾ + corr. August + corr. February + A11	1994 1994 1995 1996
IEC 529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
IEC 707	1981	Methods of test for the determination of the flammability of solid electrical insulating materials when exposed to an igniting source	HD 441 S1	1983
IEC 1238-1	1993	Compression and mechanical connectors for power cables with copper or aluminium conductors Part 1: Test methods and requirements	-	-
ISO 3231	1993	Paints and varnishes - Determination of resistance to humid atmospheres containing sulphur dioxide	-	-

1) HD 323.2.30 S3 includes A1:1985 to IEC 68-2-30.

2) EN 60238 includes the corrigendum August 1992 to IEC 238.

3) EN 60439-1 includes the corrigendum December 1993 to IEC 439-1.

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 4628-3	1982	Paints and varnishes - Evaluation of degradation of paint coatings - Designation of intensity, quantity and size of common types of defect Part 3: Designation of degree of rusting	-	-
ISO 4892-2	1994	Plastics - Methods of exposure to laboratory light sources Part 2: Xenon arc sources	-	-
ISO 6506	1981	Metallic materials - Hardness test Brinell test	-	-
ISO 9223	1992	Corrosion of metals and alloys Corrosivity of atmosphere - Classification	-	-

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INTERNATIONALE
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Première édition
First edition
1996-03

Ensembles d'appareillage à basse tension –

**Partie 5:
Règles particulières pour les ensembles destinés
à être installés à l'extérieur, en des lieux publics –
Ensembles d'appareillage pour réseaux de
distribution (ERD)**

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**Low-voltage switchgear and controlgear
assemblies –**

**Part 5:
Particular requirements for assemblies intended
to be installed outdoors in public places –
Cable distribution cabinets (CDCs) for power
distribution in networks**

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES –
Part 5: Particular requirements for assemblies intended to be installed
outdoors in public places –
Cable distribution cabinets (CDCs) for power distribution in networks**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, express as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 439-5 has been prepared by sub-committee 17D: Low-voltage switchgear and controlgear assemblies, of IEC technical committee 17: Switchgear and controlgear.

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

FDIS	Report on voting
17D/161/FDIS	17D/177/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.

Cable distribution cabinets (CDCs) for power distribution in networks shall comply with all requirements of IEC 439-1 (1992): *Low-voltage switchgear and controlgear assemblies, Part 1: Type-tested and partially type tested assemblies*, if not otherwise indicated hereinafter and shall also comply with the particular requirements contained in this publication.

The clauses of this standard supplement, modify or replace clauses in IEC 439-1 (1992).

Where there is no corresponding clause or subclause in this standard, the clause or subclause of the main document applies without modification.

In view of the fact that this publication should be read in conjunction with IEC 439-1, the numbering of its clauses and subclauses correspond with the latter.

The IEC publications quoted in this standard are listed in 1.2.

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**LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES –
Part 5: Particular requirements for assemblies intended to be installed
outdoors in public places –
Cable distribution cabinets (CDCs) for power distribution in networks**

1 General

1.1 Scope and object

This standard gives supplementary requirements for cable distribution cabinets (CDCs), which are stationary, type-tested assemblies (TTA) for outdoor installation in places which are exposed to the public, but where only skilled persons have access for their use. They are for use in public three-phase systems.

NOTES

- 1 If a CDC 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 7.6).
- 2 Where local regulations and practices permit, a CDC according to this standard may be used in other than public networks.

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1.2 Normative references

The following normative documents contain provisions, which through reference in this text, constitute provisions of this part of IEC 439. At the time of publication, the editions indicated were valid. All normative documents are subject to revision and parties to agreements based on this part of IEC 439 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid normative documents.

IEC 68-2-11: 1981, *Environmental testing – Part 2: Tests – Test Ka: Salt mist*

IEC 68-2-30: 1980, *Environmental testing – Part 2: Tests – Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle)*

IEC 238: 1991, *Edison screw lampholders*

IEC 269-1: 1986, *Low-voltage fuses – Part 1: General requirements*

IEC 439-1: 1992, *Low-voltage switchgear and controlgear assemblies – Part 1: Type-tested and partially type-tested assemblies*

IEC 529: 1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 707: 1981, *Methods of test for the determination of the flammability of solid electrical insulating materials when exposed to an igniting source*

IEC 1238-1: 1993, *Compression and mechanical connectors for power cables with copper or aluminium conductors – Part 1: Test methods and requirements*

ISO 3231: 1993, *Paints and varnishes – Determination of resistance to humid atmospheres containing sulphur dioxide*

ISO 4628-3: 1982, *Paints and varnishes – Evaluation of degradation of paint coatings – Designation of intensity, quantity and size of common types of defect – Part 3: Designation of degree of rusting*

ISO 4892-2: 1994, *Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon arc sources*

ISO 6506: 1981, *Metallic materials – Hardness test – Brinell test*

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

2 Definitions

The definitions of part 1 apply with the following additions and modifications:

2.1 General

2.1.1.2 **partially type-tested low-voltage switchgear and controlgear assembly (PTTA):** Not applicable.

2.1.10 **cable distribution cabinet (CDC):** A cubicle-type ASSEMBLY for stationary outdoor installation, to be used for the distribution of electrical energy through cable to other equipment. This other equipment is not intended to consume electrical energy (see figure 1).

2.1.10.1 **ground-mounted cable distribution cabinet:** A cable distribution cabinet for installation at ground level on a foundation. The cabinet entries for external conductors are suitable for cables.

2.1.10.2 **pole-mounted cable distribution cabinet:** A cable distribution cabinet for installation on a pole, on which a transformer is normally mounted, in an aerial network. The cabinet entries for external conductors are suitable for cables or insulated overhead line conductors.

2.1.10.3 **wall-mounted surface type cable distribution cabinet:** A cable distribution cabinet for installation on the surface of a wall. The cabinet entries for external conductors are suitable for cables.

2.1.10.4 **wall-mounted recessed type cable distribution cabinet:** A cable distribution cabinet for installation into a recess in a wall. A CDC is not designed to support the portion of the wall above the CDC. The cabinet entries for external conductors are suitable for cables.

2.2 Constructional units of ASSEMBLIES

2.2.1 **section** (see figure C.4, page 165): Not applicable.

2.2.2 **sub-section:** Not applicable.

2.2.4 **barriered section or sub-section:** Not applicable.