SLOVENSKI STANDARD

SIST EN 60439-5:1999/A1:1999

prva izdaja
julij 1999

Sestavi nizkonapetostnih stikalnih in krmilnih naprav – 5. del: Posebne zahteve za sestave, predvidene za zunanjo postavitev na javnih mestih – Kabelske razdelilne omare (CDC) za elektroenergetska omrežja – Dopolnilo A1

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. Amendment A1 (IEC 60439-5:1996/A1:1998)

ICS 29.130.20; 29.240.99

Referenčna številka
SIST EN 60439-5:1999/A1:1999(en)

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60439-5/A1

August 1998

ICS 29.120.60;29.240

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 60439-5:1996/A1:1998)

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 60439-5:1996/A1:1998)

Niederspannung-Schaltgeräte-kombinationen
Teil 5: Besondere Anforderungen an Niederspannung-Schaltgeräte-kombinationen, die im Freien an öffentlich zugängigen Plätzen aufgestellt werden - Kabelverteilerschränke in Energieversorgungsnetzen
(IEC 60439-5:1996/A1:1998)

This amendment A1 modifies the European Standard EN 60439-5:1996; it was approved by CENELEC on 1998-08-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, Czech Republic, 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/201/FDIS, future amendment 1 to IEC 60439-5:1996, 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 amendment A1 to EN 60439-5:1996 on 1998-08-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1999-05-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2001-05-01

Endorsement notice

The text of amendment 1:1998 to the International Standard IEC 60439-5:1996 was approved by CENELEC as an amendment to the European Standard without any modification.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
60439-5

1996

AMENDEMENT 1
AMENDMENT 1
1998-06

Amendement 1

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)

Amendment 1

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
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FOREWORD

This amendment has been prepared by subcommittee 17D: Low-voltage switchgear and controlgear assemblies, of IEC technical committee 17: Switchgear and controlgear.

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

FDIS	Report on voting
17D/201/FDIS	17D/206/RVD

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

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6 Service conditions

Add the following new subclause:

6.2.11 Exposure to heavy snowfall and snowdrift

For installations in regions where heavy snowfalls and snowdrift occur, which necessitate snow clearance by ploughing, subject to agreement between manufacturer and user, an arctic climate can be considered a normal condition; however, the lower temperature limit of –25 °C may be applied (see 8.2.9.2.2).

7 Design and construction

7.1 Mechanical design

7.1.1 General

Add, at the end of the third paragraph, the following reference:

"(see 8.2.9.6)".

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8.2 Type tests

Add, in table 7, the following test to the list of additional verifications and tests:

Number	Characteristics to be checked	Subclause number	Requirements
12.6	Test of mechanical strength of the base	8.2.9.6	Resistance to force imparted by steel tube

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8.2.9 Verification of mechanical strength

Replace in the first paragraph "test" *by* "tests".

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8.2.9.4 Verification of resistance to axial load of metal inserts in synthetic material

Replace this subclause by the following:

The test shall be carried out on a representative specimen of each type and size of metal insert. Also, if there is a difference in the thickness of the profile of the material surrounding a particular insert, the test shall be repeated for this condition.

During the test the CDC shall be fully supported on a platform.

A screw-eye shall be fitted to each insert under test and an axial force in accordance with table 18 shall be applied for 10 s in an attempt to extract the insert from its anchorage.

Compliance is checked by inspection that the inserts remain undamaged and in their original position; and also that there is no cracking of the surrounding material forming the anchorage for the insert.

NOTE – Small cracks, created by air bubbles that were visible before the test, but not affected by the application of the axial load, are ignored.

Table 18 – Axial load to be applied to the inserts

Size of insert	Axial load N
M4	350
M5	350
M6	500
M8	500
M10	800
M12	800

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Add the following new subclause:

8.2.9.6 Test of mechanical strength of the base

This test shall be carried out with the CDC fixed to the base, in accordance with figure 9 and the manufacturer's installation instructions. A mechanical force is transferred via a thick-walled steel tube, and shall be applied to the lowest part of the longest section of the CDC base which is beneath the ground surface when it is installed.

If the design of the base includes one or more permanent supports, the force shall be applied by means of a number of steel tubes. One tube shall be placed in the centre of each unsupported length. The individual forces shall simultaneously be applied to each tube and shall be calculated according to the following formula:

$$F = 3{,}5\ ^{N}/_{mm} \times L$$

where L is the unsupported length in millimetres.

The force(s) shall be applied for 1 min. After this period and whilst the force is still maintained, the degree of protection shall be verified.

If there is another section of the CDC base which is of similar length but has a different profile, the test shall be repeated on this section.

Compliance is checked by inspection that the base has not broken and by verification that the degree of protection of that part of the CDC and base which is normally above ground remains IP3XD.

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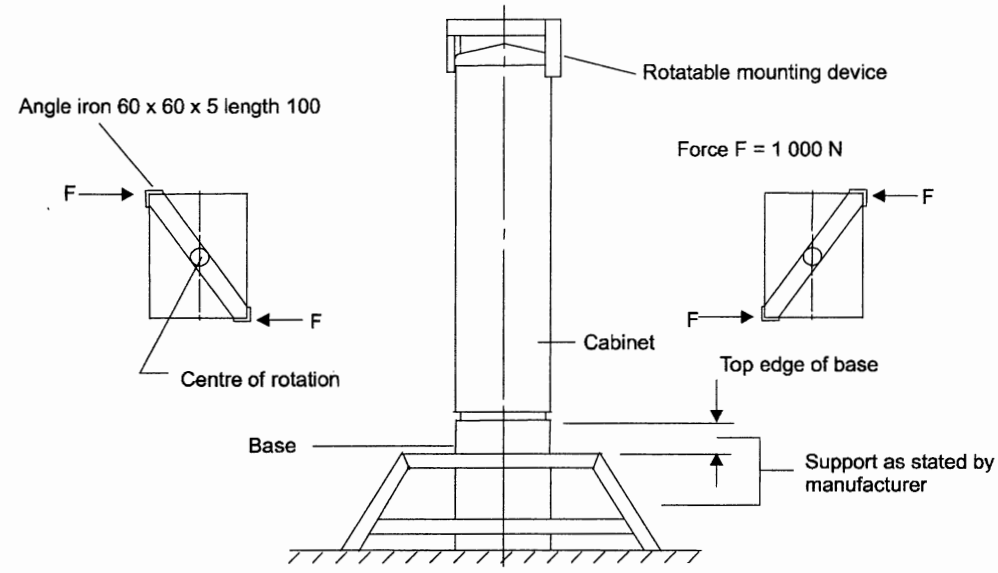
Replace the existing figure 5 by the following new figure 5:



Dimensions in millimetres

Figure 5 – Diagram of test to verify the resistance to torsional stress