SLOVENSKI STANDARD

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Cable trunking systems and cable ducting systems for electrical installations - Part 2-3: Particular requirements for slotted cable trunking systems intended for installation in cabinets

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EUROPEAN STANDARD

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English version

Cable trunking systems and cable ducting systems for electrical installations Part 2-3: Particular requirements for slotted cable trunking systems intended for installation in cabinets

Systèmes de goulotte et systèmes de conduit profilé pour installations électriques
Partie 2-3: Règles particulières pour les systèmes de goulotte de câblage pour installation dans les armoires

Elektroinstallationskanalsysteme für elektrische Installationen
Teil 2-3: Besondere Anforderungen an Verdrahtungskanäle zum Einbau in Schaltschränke

This European Standard 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 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.

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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

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 213, Cable management.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50085-2-3 on 1998-08-01.

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)	2000-01-01
- latest date by which national standards conflicting with the EN have to be withdrawn	(dow)	2001-08-01

This standard is a system standard for cable management products used for electro-technical purposes. It relates to the Council Directives on the harmonization of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits - Low Voltage Directive (73/23/EEC) - through consideration of the essential requirements of this directive.

This standard is supported by separate standards to which references are made.

This part 2 is to be used in conjunction with EN 50085-1:1997, Cable trunking and cable ducting systems for electrical installations -- Part 1: General requirements.

This part 2 supplements or modifies the corresponding clauses of part 1.

Where a particular clause or subclause of part 1 is not mentioned in this part 2, that clause or subclause applies as far as is reasonable. Where this part 2 states “addition” or “replacement”, the relevant text of part 1 is to be adapted accordingly.

Subclauses and figures which are additional to those in part 1 are numbered starting from 101.

Contents

1 Scope

Replacement:

This European Standard specifies requirements and tests for slotted cable trunking systems intended for the accommodation, and where necessary for the segregation, of conductors, cables or cords, inside cabinets for electrical and/or communication systems installations up to 1 000 V a.c. and/or 1 500 V d.c..

This standard does not apply to conduit, cable tray or cable ladder or current carrying parts within the system.

This standard shall be used in conjunction with EN 50085-1:1997, Cable trunking systems and cable ducting systems for electrical installations -- Part 1: General requirements, which is referred to in this document as part 1. Wherever reference is made in this standard to EN 50085-1:1997 this does not apply to cable ducting systems.

2 Normative references

This clause of part 1 is applicable with the following addition :

EN 60695-2-2 1994 Fire hazard testing -- Part 2: Test methods -- Section 2 : Needle-flame test

3 Definitions

This clause of part 1 is applicable except as follows

Addition:

3.101 slotted cable trunking system : A system of enclosures consisting of slotted trunking lengths and other appropriate system components intended for the accommodation and, where necessary, for the segregation of conductors, insulated cables or cords in a cabinet.

3.102 slotted cable trunking system component : Part of the system which includes

a) slotted trunking length;
b) trunking fitting;
c) fixing device;
d) system accessory.

NOTE: The above mentioned system components may not necessarily be included all together in a system.Different combinations of system components may be used.

3.103 slotted trunking length : The main component of a slotted cable trunking system comprising of a base with slotted walls and one or more covers which may be opened or removed.

3.104 slotted wall : A wall with openings allowing cables to pass through.

NOTE: the openings can be with open or closed boundary and may have different shapes, normally designed to maintain wiring in position.

3.105 wall finger : A part of a slotted wall between two consecutive slots with open boundary.

3.106 break-out line : A line which may be available on the walls of a trunking length to facilitate the breaking of walls or parts thereof, such as a wall finger.

4 General requirements

Replacement:

Slotted cable trunking systems shall be so designed and constructed that where required they ensure reliable support, accommodation and segregation of the insulated conductors and/or cables contained therein.

Compliance is checked by carrying out all the tests specified.

5 General conditions for tests

This clause of part 1 is applicable.

6 Classification

This clause of part 1 is applicable except as follows :

6.2 Not applicable.

6.7 Not applicable.

Addition:

6.101 *According to the position of the slotted trunking length when installed*

6.101.1 Mounted either on a:
- vertical surface or
- horizontal surface except in a cover down position.

6.101.2 Mounted either on a:
- vertical surface or
- horizontal surface.

7 Marking and documentation

This clause of part 1 is applicable except as follows :

Addition:

7.1 : Insert as new third paragraph

When small fixing devices such as rivets, bolts and the like, or system accessories for identification purposes only are supplied in a package, the whole marking may, as an alternative, be marked on the package only.

8 Dimensions

This clause of part 1 is applicable except as follows :

Addition:

8.101 Preferred solution for fixing holes, if any, in the base of the slotted trunking lengths according to the different trunking widths as shown in figure 101 is as follows :

- trunking lengths with a nominal width less or equal to 12,5 mm should preferably have one row of small holes only, type B (see figure 102) ;

- trunking lengths with a nominal width greater than 12,5 mm and less or equal to 62,5 mm, should preferably have one row of holes only, alternately type A and B (see figure 102) ;

- trunking lengths with a nominal width greater than 62,5 mm should preferably have two or more rows of holes, positioned at a distance of 25 mm or 50 mm apart, symmetrically located from the trunking centre line.

9 Construction

This clause of part 1 is applicable except as follows :

9.2 Not applicable

9.6 Not applicable

9.7 Not applicable

9.9 Not applicable

9.10 Not applicable

9.11 Not applicable

10 Mechanical properties

This clause of part 1 is applicable except as follows :

10.2 Cable support test

Replacement:

Each test is made on one sample of slotted trunking length having a length of 250 mm ± 5 mm.

The sample is securely fixed to a rigid support according to figure 103.

Cable retainers, dividers and the like, if any, are fitted according to the manufacturer's instructions.

The sample is subjected to an evenly distributed load of 0,8 g/mm^2 per metre length of the declared usable area for cables. The load consists of copper cables complying with class 5 table 3 of HD 383 S2, and placed in the sample in the following manner as shown in figure 104 :

Cables of 25 mm^2 nominal cross section shall be placed in the samples so that approximately 50 % of the load is achieved.

Cables of 2,5 mm^2 nominal cross section shall be placed on top of the larger cables to achieve the total load within a tolerance of ± 5 g.

Non metallic and composite slotted trunking lengths are tested at the maximum permanent application temperature declared by the manufacturer according to table 2.

10.2.1 *Slotted trunking lengths classified according to 6.101.1 or 6.101.2 are mounted according to figure 104, position A.*

After 2 h (0 / + 5 min) with the load still applied the distortion shall not exceed 10 % of the height H with a maximum of 10 mm (see figure 104, position A).

10.2.2 *In addition for slotted trunking lengths classified according to 6.101.2 the test of 10.2.2 is repeated but with the sample mounted according to figure 104, position B.*

After 2 h (0 / + 5 min) with the load still applied the distortion shall not exceed 10 % of the width W with a maximum of 10 mm (see figure 104, position B).

10.3.1.3 Replace the second paragraph by:

Within 10 s after the removal of the sample from the refrigerator the hammer is allowed to fall so that an impact is applied to the centre of the cover or the centre of the bottom of the base whichever is the weakest. The mass of the hammer is 0,5 kg + 0,005 / 0 kg and the fall height is 100 mm ± 1 mm.

10.3.1.4 Replace the note by :

NOTE: Any cracks in internal dividers which are not likely to impair electrical safety or normal use are ignored. Any cracks in or breaking of wall finger are ignored.

10.3.2 Not applicable

10.4 Not applicable.

10.5 Not applicable.

11 Electrical properties

This clause of part 1 is applicable.