
Škatle in ohišja za električno opremo za gospodinjstvo in podobne nepremične električne inštalacije - 1. del: Splošne zahteve

Boxes and enclosures for electrical accessories for household and similar fixed electrical installations - Part 1: General requirements

Dosen und Gehäuse für Installationsgeräte für Haushalt und ähnliche ortsfeste elektrische Installationen - Teil 1: Allgemeine Anforderungen

Boîtes et enveloppes pour appareillage électrique pour installations électriques fixes pour usages domestiques et analogues - Partie 1: Exigences générales

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Ta slovenski standard je istoveten z: EN IEC 60670-1:2021/A11:2021

ICS:

29.120.99 Druga električna dodatna oprema Other electrical accessories

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 60670-1:2021/A11

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ICS 29.120.10

English Version

**Boxes and enclosures for electrical accessories for household
and similar fixed electrical installations - Part 1: General
requirements**

Boîtes et enveloppes pour appareillage électrique pour
installations électriques fixes pour usages domestiques et
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und ähnliche ortsfeste elektrische Installationen - Teil 1:
Allgemeine Anforderungen

This amendment A11 modifies the European Standard EN IEC 60670-1:2021; it was approved by CENELEC on 2020-11-09. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

[SIST EN IEC 60670-1:2021/A11:2021](https://standards.iteh.ai/SIST/60670-1-2021/A11-2021)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 60670-1:2021/A11:2021 (E)**European foreword**

This document (EN IEC 60670-1:2021/A11:2021) has been prepared by CLC/TC 23BX “Switches, boxes and enclosures for household and similar purposes, plugs and socket outlet for D.C.”

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-10-16
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2023-04-09

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

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7 Classification

Delete classifications 7.2.2.2 and 7.2.2.3 from Table 1.

8 Marking

Replace f) by:

“f) void”

Replace j) by:

“j) the letter Ha or information for boxes and enclosures classified according to 7.2.2.1”

Replace the penultimate paragraph by:

“Unless self-evident, further information for the correct installation and use of the box or enclosure shall be given in the manufacturer’s instructions which need not be provided with the product. E.g. information on dimensions to ensure compatibility with the accessories to be accommodated.”

9 Dimensions

Replace the first sentence by:

“Boxes and enclosures shall comply with the appropriate standard sheets if any, see Annexes ZB and ZC for the countries concerned.”

11 Provision for earthing

Replace 11.2 by:

“11.2 Void”

Delete Figures 3, 4, and replace the relevant titles with “deleted text”.

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12 Construction

In 12.4, add the following after the 3rd paragraph:

“In case there is a cavity, the head of the screw can be protected by an additional cap of insulating material. In this case the manufacturers instruction shall give information concerning the cap to be used.

In case there is no cavity the head of the screw shall be protected with a cap of insulating material and in this case, the cap shall be delivered with the box.

The cap shall stay in position during normal use.

Compliance is checked by the following test.

The caps are fixed to the boxes according to the manufacturer’s instructions and subjected to the ageing test of 13.1.

After 1 h, the boxes are then turned to a position with the opening in the direction of the floor.

The cap shall not come detached.”

In 12.6, delete the words “and/or IEC 60981” in the second paragraph.

In 12.9.4, replace last sentence by:

“Compliance is checked by inspection.”

Replace 12.13 with:

“12.13 Void”

Delete Figure 16 and replace the relevant titles by “deleted text”.

EN IEC 60670-1:2021/A11:2021 (E)

In 12.15.1, delete the words “or IEC 60981” in the fourth paragraph.

13 Resistance to ageing, protection against ingress of solid objects and against harmful ingress of water

In 13.3.2, replace the first paragraph after Figure 19 by:

“The test wall of Figure 19 is made with bricks having smooth surfaces. When the box is mounted in the test wall, it shall fit tight against the wall, taking into account the manufacturer’s instructions (for example use of sealing compound).”

16 Resistance to heat

Replace 16.3 by:

“16.3 Void”

Delete Figure 25 and replace the relevant titles by “deleted text”.

17 Creepage distances, clearances and distances through sealing compound

Replace the text of Clause 17 by:

“Clause 17 is only applicable in the relevant Part 21 to 24 of the IEC 60670 series”

18 Resistance of insulating material to abnormal heat and fire

Replace the 2 bullets by:

“

— By the test made at 850 °C:

for parts of insulating material necessary to retain current-carrying parts and/or parts of the earthing circuit in position (with the exception of parts of insulating material needed to retain the earth terminal in position in a box), and

for parts of insulating material of boxes and enclosures classified according to 7.2.2.1, with the exception of parts protruding from the wall and additional and/or removable internal parts of enclosure (e.g. separator) not necessary to retain current carrying parts in position.

— By the test made at 650 °C:

for parts of insulating material not necessary to retain current-carrying parts in position (even though they are in contact with them), and

for parts of insulating material retaining earthing terminal in position;

for parts of insulating material of boxes and enclosures classified according to 7.2.2.1, protruding from the wall and additional and/or removable internal parts of enclosure (e.g. separator) not necessary to retain current carrying parts in position.”

Z1 Electromagnetic fields (EMF) requirements

Add the following Clause Z1:

“

Z1 Electromagnetic fields (EMF) requirements

Products covered by this standard are, in normal use, passive or the electromagnetic field generated is considered negligible. Therefore, these requirements are deemed to be met without performing any test.”

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60068-2-75	1997	Environmental testing - Part 2-75: Tests Test Eh: Hammer tests	-EN 60068-2-75	2014
IEC 60112	2003	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	EN 60112	2003
IEC 60423	2007	Conduit systems for cable management Outside diameters of conduits for electrical installations and threads for conduits and fittings	-EN 60423	2007
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 +EN 60529:1991 /corrigendum 1993	1991 1993 May
IEC 60529:1989/A1	1999		EN 60529:1991/A1	2000
IEC 60529:1989/A2	2013		EN 60529:1991/A2	2013
IEC 60695-2-11	2000	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end products	EN 60695-2-11	2014
IEC 60695-10-2	2003	Fire hazard testing - Part 10-2: Abnormal heat - Ball pressure test	EN 60695-10-2	2014
IEC 60981	2004	Extra-heavy duty electrical rigid steel- conduits	-	-
IEC 61032	1997	Protection of persons and equipment by enclosures - Probes for verification	EN 61032	1998
IEC 61140	2001	Protection against electric shock - Common aspects for installation and equipment	EN 61140	2002
IEC 61140:2001/A1 (mod)	2004		EN 61140:2002/A1	2006
ISO/IEC Guide 51	-	Safety aspects - Guidelines for their- inclusion in standards	-	-

Annex ZB (normative)

Special national conditions

Special national condition: National characteristic or practice that cannot be changed even over a long period, e.g. climatic conditions, electrical earthing conditions.

NOTE If it affects harmonization, it forms part of the European Standard / Harmonization Document.

For the countries in which the relevant special national conditions apply these provisions are normative, for other countries they are informative.

Clause Special national condition

1 **Norway**

Replace second paragraph as follows:

Boxes and enclosures complying with this standard are suitable for use at ambient temperatures not normally exceeding +40 °C, but their average over a period of 24 h does not exceed +35 °C, with a lower limit of the ambient air temperature of –45 °C.

Additional requirements for boxes and enclosures suitable for use at ambient temperatures below –5 °C down to and including –45°C are given in Clause 7, 8.1, and 15.4

7 **Norway**

Add the following new classifications:

7.10 The minimum temperature in use	7.10.1 Boxes intended for use down to -5 °C	
	7.10.2 Boxes intended for use from -5 °C for use down to -45 °C ^b	
^b The lower temperature limit in use is declared by marking inside symbol IEC 60417-6292 (see 8.1, k)		

8.1 **Norway**

Add after j):



k) the symbol IEC 60417-6292 for boxes classified according to 7.10.2.

NOTE: Temperature inside symbol indicates the minimum declared temperature in use

United Kingdom

Add after e):

The marking of the type reference is not used.

- Clause Special national condition
- 9 **Belgium**
For boxes, there are standard sheets specified in the Belgium Standard NBN C 61–670.
- Germany**
Boxes intended to accommodate socket-outlets or switches following DIN 49200, DIN 49440-5, DIN 49445 or DIN 49447 shall comply with the standard sheets specified in the DIN 49073.
- Italy**
The dimensions of insulating flush-mounting boxes for electrical accessories shall comply with the Italian Standard CEI 23-74, when applicable.
- Spain**
Boxes shall comply with the standard sheets specified in the Spanish Standard UNE 201006 when applicable. Screws are included in some of these standard sheets because screws are considered as a dimensional requirement.
- Netherlands**
Boxes shall comply with the standard sheets specified in the Netherlands Standard NEN-EN-IEC 60670-1:2021/ANL1:2021.
- 11.1 **Denmark**
Due to the lack of an earthing conductor in many existing old buildings, boxes and enclosures requiring earth connection cannot normally be used.
- 12.5 **Czech Republic, Netherlands, United Kingdom**
Inlets according to 7.3.3 in boxes intended to receive switches or socket-outlets shall have spout(s) with adequate inlet stops.
- 12.7 **Denmark, Germany** (standards.iteh.ai)
A cable retention is required for boxes and enclosures for hollow walls due to installation practices.
[SIST EN IEC 60670-1:2021/A11:2021](https://standards.iteh.ai/catalog/standards/sist/3de61466-3f97-4b72-8a35-0d34355293a3/sist-en-iec-60670-1-2021-a11-2021)
- 12.8 **Norway** <https://standards.iteh.ai/catalog/standards/sist/3de61466-3f97-4b72-8a35-0d34355293a3/sist-en-iec-60670-1-2021-a11-2021>
Addition to 3rd paragraph:
For boxes classified according to 7.10.2, the test shall be carried out at declared temperature
- 12.10 **Netherlands**
Flush-type boxes shall have metal inserts and be provided with metal screws having ISO metric thread.
- United Kingdom**
With the exception of products within the scope of EN 60670-22 or EN 60670-23, boxes shall be provided with metal threads so as to ensure safety and thread-forming or thread-cutting screws shall not be used.
- 13.2 **Denmark, Germany, Norway, Sweden**
A minimum protection degree of IP30 is required for boxes and enclosures for hollow walls due to installation practices.
- 15.4 **Norway**
Add a 3rd bullet point after second paragraph:
• Declared temperature in °C for types as classified according to 7.10.2.

Annex ZC (informative)

A-deviations

A-deviation: National deviation due to regulations, the alteration of which is for the time being outside the competence of the CENELEC national member.

This European Standard falls under Directive 2014/35/EU.

NOTE (from CEN/CENELEC IR Part 2:2018, 2.16) Where standards fall under EC Directives or Regulations, it is the view of the Commission of the European Communities (OJ No C 59; 1982–03–09) that the effect of the decision of the Court of Justice in case 815/79 Cremonini/Vrankovich (European Court Reports 1980, p. 3583) is that compliance with A-deviations is no longer mandatory and that the free movement of products complying with such a standard should not be restricted within the EC except under the safeguard procedure provided for in the relevant Directive or Regulation.

A-deviations in an EFTA-country are valid instead of the relevant provisions of the European Standard in that country until they have been removed.

<u>Clause</u>	<u>Deviation</u>
9	<p>Malta (Electrical Accessories Regulations, 2004)</p> <p>United Kingdom (UK Plug and Socket Safety Regulations, 1994)</p> <p>18.1.1 Boxes intended to accommodate socket-outlets or connection units to BS 1363 shall have provision for two M3.5 fixing screws at the following fixing centres, in accordance with BS 4662:</p> <p>18.1.2 at centres of 60,3 mm \pm 0,2 mm on the horizontal or vertical centrelines for boxes intended to accommodate 1-gang socket-outlets or connection units</p> <p>18.1.3 at centres of 120,6 mm \pm 0,3 mm on the horizontal or vertical centrelines for boxes intended to accommodate 2-gang socket-outlets or connection units</p> <p>18.1.4 at centres of 180,9 mm \pm 0,4 mm on the horizontal or vertical centrelines for boxes intended to accommodate 3-gang socket-outlets or connection units.</p>