



BSI Standards Publication

Boxes and enclosures for electrical accessories for household and similar fixed electrical installations

Part 1: General requirements

This is a preview of "BS EN IEC 60670-1:20...". Click here to purchase the full version from the ANSI store.

National foreword

This British Standard is the UK implementation of EN IEC 60670-1:2021+A11:2021. It is derived from IEC 60670-1:2015. It supersedes BS EN 60670-1:2005+A1:2013, which will be withdrawn on 9 April 2023.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to text carry the number of the amendment. For example, text altered by CENELEC amendment A11 is indicated by A11 A11.

The UK participation in its preparation was entrusted to Technical Committee PEL/23, Electrical accessories.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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For the Northern Ireland market, UK law will continue to implement relevant EU law subject to periodic confirmation. References to EU legislation are therefore still valid.

More information on legislation can be found at www.gov.uk.

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Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 April 2021.

Amendments/corrigenda issued since publication

Date	Text affected
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EUROPÄISCHE NORM

April 2021

ICS 29.120.10

Supersedes EN 60670-1:2005, EN 60670-1:2005/IS1:2009 and all of its amendments and corrigenda (if any)

English Version

**Boxes and enclosures for electrical accessories for household and similar fixed electrical installations - Part 1: General requirements
(IEC 60670-1:2015)**

Boîtes et enveloppes pour appareillage électrique pour installations électriques fixes pour usages domestiques et analogues - Partie 1: Exigences générales
(IEC 60670-1:2015)

Dosen und Gehäuse für Installationsgeräte für Haushalt und ähnliche ortsfeste elektrische Installationen - Teil 1: Allgemeine Anforderungen
(IEC 60670-1:2015)

This European Standard 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 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

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European foreword

This document (EN IEC 60670-1:2021) consists of the text of IEC 60670-1:2015 prepared by SC 23B "Plugs, socket-outlets and switches" of IEC/TC 23 "Electrical accessories".

The following dates are fixed:

- latest date by which the 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 the document have to be withdrawn (dow) 2023-04-09

This document supersedes EN 60670-1:2005 and all of its amendments and corrigenda (if any).

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 EN IEC 60670-1:2021/A11:2021.

Endorsement notice

The text of the International Standard IEC 60670-1:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60670 (series)	NOTE	Harmonized as EN 60670 (series)
IEC 60670-21	NOTE	Harmonized as EN 60670-21
IEC 60670-22	NOTE	Harmonized as EN 60670-22
IEC 60670-23	NOTE	Harmonized as EN 60670-23
IEC 60670-24	NOTE	Harmonized as EN 60670-24
IEC 62444	NOTE	Harmonized as EN 62444
ISO 1456	NOTE	Harmonized as EN ISO 1456
ISO 2081	NOTE	Harmonized as EN ISO 2081

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Foreword to amendment A11

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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(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	-	-

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(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.

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- 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**
A cable retention is required for boxes and enclosures for hollow walls due to installation practices.
- 12.8 **Norway**
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.

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(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>
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9	Malta (Electrical Accessories Regulations, 2004) United Kingdom (UK Plug and Socket Safety Regulations, 1994) 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: 18.1.2 at centres of 60,3 mm ± 0,2 mm on the horizontal or vertical centrelines for boxes intended to accommodate 1-gang socket-outlets or connection units 18.1.3 at centres of 120,6 mm ± 0,3 mm on the horizontal or vertical centrelines for boxes intended to accommodate 2-gang socket-outlets or connection units 18.1.4 at centres of 180,9 mm ± 0,4 mm on the horizontal or vertical centrelines for boxes intended to accommodate 3-gang socket-outlets or connection units.
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(informative)

Relationship between this European standard and the safety objectives of Directive 2014/35/EU [2014 OJ L96] aimed to be covered

This European standard has been prepared under a Commission's standardization request relating to harmonized standards in the field of the Low Voltage Directive, M/511, to provide one voluntary means of conforming to safety objectives of Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding safety objectives of that Directive, and associated EFTA regulations.

Table ZZ.1 — Correspondence between this European standard and Annex I of Directive 2014/35/EU [2014 OJ L96]

Safety objectives of Directive 2014/35/EU	Clause(s) / subclause(s) of this EN	Remarks / Notes
1. General conditions		
(a) the essential characteristics, the recognition and observance of which will ensure that electrical equipment will be used safely and in applications for which it was made, shall be marked on the electrical equipment , or, if this is not possible, on an accompanying document;	8 - Marking	
(b) the electrical equipment, together with its component parts, shall be made in such a way as to ensure that it can be safely and properly assembled and connected ;	8 - Marking 10 - Protection against electrical shock 11 - Provision for earthing 12 – Construction 13 – Resistance to ageing, protection against ingress of solid objects and against harmful ingress of water	
(c) the electrical equipment shall be so designed and manufactured as to ensure that protection against the hazards set out in points 2 and 3 is ensured, providing that the equipment is used in applications for which it was made and is adequately maintained.	10 - Protection against electrical shock 11 - Provision for earthing 12 – Construction 14 - Insulation resistance and electrical strength 15 - Mechanical strength	