



BSI Standards Publication

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

Part 22: Particular requirements for connecting boxes and enclosures

National foreword

This British Standard is the UK implementation of EN 60670-22:2006+A11:2024. It is derived from IEC 60670-22:2003, incorporating amendment 1:2015. It supersedes BS EN 60670-22:2006, which will be withdrawn on 29 July 2027.

The CENELEC common modifications have been implemented at the appropriate places in the text. The start and finish of each common modification is indicated in the text by tags **[C]** **[C]**.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by **[A1]** **[A1]**.

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

BS 6220 included dimensions for fixing centres which are unique to UK electrical wiring accessories and which are desirable to allow the easy mounting onto other boxes used in UK. See Informative [UK National Annex NA](#).

BS 6220 included test currents significantly higher than those in this standard for terminals of equal capacity. It has been common practice for UK manufactures to mark a rated current on junction boxes (although such marking was not a requirement of BS 6220). Consequently, there is now a risk of junction boxes tested to this standard being used as replacements for BS 6220 boxes in circuits with currents higher than proven by testing to this standard. Therefore, it is recommended that junction boxes for use in the UK are marked with an appropriate rated current which does not exceed the test current for the intended rated connecting capacity given in [Table 101](#).

Contractual and legal considerations

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This publication has been prepared under a mandate given to the European Standards Organizations by the European Commission and the European Free Trade Association. It is intended to support requirements of the EU legislation detailed in the European Foreword. A European Annex, usually Annex ZA or ZZ, describes how this publication relates to that EU legislation.

For the Great Britain market (England, Scotland and Wales), if UK Government has designated this publication for conformity with UKCA marking (or similar) legislation, it may contain an additional National Annex. Where such a National Annex exists, it shows the correlation between this publication and the relevant UK legislation. If there is no National Annex of this kind, the relevant Annex ZA or ZZ in the body of the European text will indicate the relationship to UK regulation applicable in Great Britain. References to EU legislation may need to be read in accordance with the UK designation and the applicable UK law. Further information on designated standards can be found at www.bsigroup.com/standardsandregulation.

For the Northern Ireland market, UK law will continue to implement relevant EU law subject to periodic confirmation. Therefore Annex ZA/ZZ in the European text, and references to EU legislation, are still valid for this market.

UK Government is responsible for legislation. For information on legislation and policies relating to that legislation, consult the relevant pages of www.gov.uk.

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

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Amendments/corrigenda issued since publication

Date	Text affected
31 October 2010	Additional information added to national foreword
31 December 2010	Correction to text in national foreword
28 February 2019	Supersession details added to national foreword
30 September 2024	Implementation of IEC amendment 1:2015 with CENELEC endorsement A1:2024
30 September 2024	Implementation of CENELEC amendment A11:2024

**Boxes and enclosures for electrical accessories
for household and similar fixed electrical installations
Part 22: Particular requirements
for connecting boxes and enclosures
(IEC 60670-22:2003, modified)**

Boîtes et enveloppes pour appareillage
électrique pour installations électriques
fixes pour usage domestique et analogue
Partie 22: Règles particulières concernant
les boîtes et enveloppes de connexion
(CEI 60670-22:2003, modifiée)

Dosen für Installationsgeräte
für Haushalt und ähnliche ortsfeste
elektrische Installationen
Teil 22: Besondere Anforderungen
für Verbindungsdosen
(IEC 60670-22:2003, modifiziert)

This European Standard was approved by CENELEC on 2006-07-01. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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 the International Standard IEC 60670-22:2003, prepared by SC 23B, Plugs, socket-outlets and switches, of IEC TC 23, Electrical accessories, together with the common modifications prepared by the Technical Committee CENELEC TC 23B, Switches for household and similar fixed electrical installations, was submitted to the CENELEC Unique Acceptance Procedure and approved on 2005-08-26.

However, due to some omissions in the text and taking into account the comments submitted by National Committees during the voting period, the CLC/TC 23B Secretary asked BT not to ratify the document. A new draft was submitted to the formal vote and was approved by CENELEC as EN 60670-22 on 2006-07-01.

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) 2007-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2009-07-01

This Part 22, which specifies particular requirements for connecting boxes and enclosures, is to be used in conjunction with EN 60670-1:2005. This Part 22 supplements or modifies the corresponding clauses of EN 60670-1. Where a particular clause or subclause of Part 1 is not mentioned in this Part 22, that clause or subclause applies as far as is reasonable. Where this Part 22 states “add”, “replace” or “delete”, the relevant text of Part 1 is to be adapted accordingly.

Annexes ZA and ZB have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60670-22:2003 was approved by CENELEC as a European Standard with agreed common modifications as given below.

European foreword to amendment A1

This document (EN 60670-22:2006/A1:2024) consists of the text of IEC 60670-22:2003/A1:2015 prepared by IEC/SC 23B “Plugs, socket-outlets and switches” of IEC/TC 23 “Electrical accessories”.

The following dates are fixed:

- latest date by which this document has to be (dop) 2025-07-29
implemented at national level by publication of an
identical national standard or by endorsement
- latest date by which the national standards (dow) 2027-07-29
conflicting with this document have to be withdrawn

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 part of EN 60670 is read in conjunction with EN IEC 60670-1:2021 and EN IEC 60670-1:2021/A11:2021. It lists the changes necessary to convert that standard into a specific standard for connecting boxes and enclosures.

This document is read in conjunction with EN 60670-22:2006/A11:2024.

This document has been prepared under a standardization request addressed to [the relevant ESO] by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZZ, which is an integral part of EN 60670-22:2006/A11:2024.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60670-22:2003/A1:2015 was approved by CENELEC as a European Standard without any modification.

European foreword to amendment A11

This document (EN 60670-22:2006/A11:2024) 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 (dop) 2025-07-29
implemented at national level by publication of
an identical national standard or by
endorsement
- latest date by which the national standards (dow) 2027-07-29
conflicting with this document have to be
withdrawn

This document amends EN 60670-22:2006/A1:2024.

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 Part 22 is read in conjunction with EN IEC 60670-1:2021 and EN IEC 60670-1:2021/A11:2021. It lists the changes necessary to convert that standard into a specific standard for connecting boxes and enclosures.

This document has been prepared under a Standardization Request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For relationship with EU Legislation, see informative Annex ZZ, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60998-1	2002	Connecting devices for low-voltage circuits for household and similar purposes - Part 1: General requirements	EN 60998-1	2004
IEC 60998-2-1	2002	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units	EN 60998-2-1	2004
IEC 60998-2-2	2002	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type clamping units	EN 60998-2-2	2004
IEC 60998-2-3	2002	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-3: Particular requirements for connecting devices as separate entities with insulation-piercing clamping units	EN 60998-2-3	2004
IEC 60998-2-4	2004	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-4: Particular requirements for twist-on connecting devices	EN 60998-2-4	2005
IEC 60999-1	1999	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm ² up to 35 mm ² (included)	EN 60999-1	2000

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																		
4	<p>Germany</p> <p>Terminal blocks according to IEC 60947-7-1 and IEC 60947-7-2 are allowed to be incorporated in connecting boxes</p>																		
5.2	<p>Germany</p> <p>Terminal blocks according to IEC 60947-7-1 and IEC 60947-7-2 need not be tested again</p>																		
5.2	<p>United Kingdom</p> <p>Connecting boxes shall be tested either:</p> <ul style="list-style-type: none">— with their incorporated terminals or connecting devices or— with the terminals or connecting devices recommended by the manufacturer for connecting boxes with provision for subsequent incorporation of terminals or connecting devices																		
8.1	<p>United Kingdom</p> <p>Marking of item n) is mandatory in the United Kingdom.</p> <p>Germany;</p> <p><i>Add before item n):</i></p> <p>For l) and m) the maximum number of connecting devices and maximum number of conductors depending on cross-section area and the box volume shall be in accordance with Table 103.</p> <p>Abbreviations:</p> <table><tr><td>Conductor cross-section area</td><td>cross section area</td></tr><tr><td>Number of connecting devices</td><td>connecting devices</td></tr><tr><td>Number of conductors</td><td>conductors</td></tr></table> <p>Example for a box defined for 1,5 to 4 mm²:</p> <table><tr><td>cross sectional area</td><td>1,5</td><td>2,5</td><td>4</td></tr><tr><td>connection devices</td><td>8</td><td>6</td><td>5</td></tr><tr><td>conductors</td><td>24</td><td>20</td><td>15</td></tr></table>	Conductor cross-section area	cross section area	Number of connecting devices	connecting devices	Number of conductors	conductors	cross sectional area	1,5	2,5	4	connection devices	8	6	5	conductors	24	20	15
Conductor cross-section area	cross section area																		
Number of connecting devices	connecting devices																		
Number of conductors	conductors																		
cross sectional area	1,5	2,5	4																
connection devices	8	6	5																
conductors	24	20	15																
12.101	<p>Germany</p> <p><i>Add new subclauses:</i></p> <p>12.101.1 Inner measurements of boxes</p> <p>a) The minimum space at the bottom of the box shall not be less than 24 cm² and the minimum height shall not be less than 2 cm, except for boxes classified according to 7.2.1.</p> <p><i>Compliance is checked by measurement</i></p> <p>b) For boxes classified according to 7.2.1 the minimum space at the bottom of the box shall</p>																		