BS EN 62560:2012+A11:2019
Incorporating corrigenda January 2012 and June 2015

BSI Standards Publication

Self-ballasted LED-lamps for general lighting services by voltage > 50 V - Safety specifications

bsi.

National foreword

This British Standard is the UK implementation of EN 62560:2012+A11:2019. It is derived from IEC 62560:2011, incorporating amendment 1:2015 and corrigenda January 2012 and June 2015. It supersedes BS EN 62560:2012+A1:2015, which is withdrawn.

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 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⟩.

Text altered by IEC corrigendum January 2012 is indicated in the text by ⟨AC1⟩ ⟨AC1⟩.

Text altered by CENELEC amendment A11 is indicated by ⟨A11⟩ ⟨A11⟩.

The UK participation in its preparation was entrusted to Technical Committee CPL/34/1, Electric lamps.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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

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Date	Text affected
31 July 2015	Implementation of IEC amendment 1:2015 with CENELEC modifications. Annex ZA updated.
31 July 2015	Implementation of IEC corrigendum June 2015: correction of Figure 6 title introduced by amendment 1:2015
31 March 2019	Implementation of CENELEC amendment A11:2019

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62560:2012/A11

March 2019

ICS 29.140.30

English Version

Self-ballasted LED-lamps for general lighting services by voltage > 50 V - Safety specifications

Lampes à DEL autoballastées pour l'éclairage général fonctionnant à des tensions > 50 V - Spécifications de sécurité

LED-Lampen mit eingebautem Vorschaltgerät für Allgemeinbeleuchtung für Spannungen > 50 V - Sicherheitsanforderungen

This European Standard was approved by CENELEC on 2012-10-15. 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.

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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 62560:2012/A11:2019

Foreword

This document (EN 62560:2012) consists of the text of IEC 62560:2011 + corrigendum Jan. 2012, prepared by SC 34A, "Lamps, of IEC/TC 34, Lamps and related equipment", together with the common modifications prepared by CLC/SR 34A "Lamps ".

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) 2013-10-15
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2015-10-15

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

This European Standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

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Endorsement notice

The text of the International Standard IEC 62560:2011 + corrigendum Jan. 2012 was approved by CENELEC as a European Standard with agreed common modifications.

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

IEC 60400	NOTE	Harmonized as EN 60400.
IEC 60968	NOTE	Harmonized as EN 60968.

COMMON MODIFICATIONS

Lamps with the following caps are excluded from EN 62560:2012 as they do not comply with European safety requirements:

– E11

– E12

– E17

– E26

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EN 62560:2012/A11:2019

Foreword to amendment A1

The text of document 34A/1836/FDIS, future IEC 62560:2011/A1, prepared by SC 34A "Lamps" of IEC/TC 34 "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62560:2012/A1:2015.

A draft amendment, which covers common modifications to IEC 62560:2011/A1 (34A/1836/FDIS), was prepared by CLC/TC 34A "Lamps" and approved by CENELEC.

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)	2016-05-04
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2018-05-04

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This European Standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

Endorsement notice

The text of the International Standard IEC 62560:2011/A1:2015 was approved by CENELEC as a European Standard with agreed common modifications.

COMMON MODIFICATIONS

Lamps with the following caps are excluded from EN 62560:2012/A1:2015 as they do not comply with European safety requirements:

– E11;

– E12;

– E17;

– E26;

– E26d;

– E39.

EN 62560:2012/A11:2019

Foreword to amendment A11

This document (EN 62560:2012/A11:2019) has been prepared by CLC/TC 34 "*Lamps and related equipment*".

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)	2019-12-26
– latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2021-12-26

Clauses, subclauses, notes, tables, figures and annexes, which are additional to those in IEC 62560:2011 and EN 62560:2012/A1:2015 are prefixed "Z".

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 mandates given to CENELEC by the European Commission and the European Free Trade Association, and covers the Principal Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2014/35/EU).

For the relationship with EU Directives see informative Annex ZZA, which are integral parts of this document.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 60061-3	-	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3: Gauges	EN 60061-3 + amendments up to A53	2011
IEC 60360	-	Standard method of measurement of lamp cap temperature rise	EN 60360	1998
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
IEC 60598-1 (mod)	2008	Luminaires - Part 1: General requirements and tests	EN 60598-1 + A11	2008 2009
IEC 60695-2-10	2000	Fire hazard testing - Part 2–10: Glowing/hot-wire based test methods - Glow-wire apparatus and common test procedure	EN 60695-2-10	2001
IEC 60695-2-11 + corr. January	2000 2001	Fire hazard testing - Part 2–11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end products	EN 60695-2-11	2001
IEC 60695-2-12	2000	Fire hazard testing - Part 2–12: Glowing/hot-wire based test methods - Glow-wire flammability test method for materials	EN 60695-2-12[1)]	2001

[1)] EN 60695-2-12 is superseded by EN 60695-2-12:2010, which is based on IEC 60695-2-12:2010.

EN 62560:2012/A11:2019

Publication	Year	Title	EN/HD	Year
IEC 60695-2-13	2000	Fire hazard testing - Part 2–13: Glowing/hot-wire based test methods - Glow-wire ignitability test method for materials	EN 60695-2-13[2)]	2001
IEC 61199	1999	Single-capped fluorescent lamps - Safety specifications	EN 61199[3)]	1999
IEC 61347-1	2007	Lamp controlgear - Part 1: General and safety requirements	EN 61347-1	2008
IEC 62031	2008	LED modules for general lighting - Safety specifications	EN 62031	2008
IEC/TS 62504	-	General lighting - LEDs and LED modules - Terms and definitions	EN 62504	2014
ISO 4046-4	2002	Paper, board, pulps and related terms - Vocabulary - Part 4: Paper and board grades and converted products	-	-
IEC/TR 62778	2014	Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires	-	-

[2)] EN 60695-2-13 is superseded by EN 60695-2-13:2010, which is based on IEC 60695-2-13:2010 + corrigendum Feb. 2012.

[3)] EN 61199 is superseded by EN 61199:2011, which is based on IEC 61199:2011.

EN 62560:2012/A11:2019

Annex ZZA
(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 ZZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZZA.1 – Correspondence between this European standard and Article 3 of Directive 2014/35/EU [2014 OJ L96]

Safety Objectives of Directive 2014/35/EU [2014 OJ L96]	Clause(s) / subclause(s) of this EN	Remarks / Notes
1 (a)	Clause 5	None
1 (b)	Clause 4, 19	None
1 (c)	See items 2 and 3 of this table	None
2 (a)	Clause 6, 7, 8, 9, 11, 12, 13, 14	None
2 (b)	Clause 6, 8, 9, 10, 11, 12, 13, 17, 19	EMF is not covered in this standard
2 (c)	Clause 6, 8, 9, 11, 12, 13	None
2 (d)	Clause 6, 7, 8, 9, 11, 12, 13, 14	None
3 (a)	Clause 6, 7, 8, 9, 11, 12, 13	None
3 (b)	Clause 6, 8, 9, 11, 12, 13, 14	None
3 (c)	Clause 6, 8, 9, 10, 11, 12, 13, 14	None

EN 62560:2012/A11:2019

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the products falling within the scope of this standard.

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INTRODUCTION

There will be and are already LED products in the market which substitute existing lamps, either as retrofit mains voltage incandescent or self-ballasted fluorescent lamps or as replacement for tungsten halogen lamps below 50 V.

The present document takes up the supply voltage range from > 50 V up to 250 V. A proposal for a safety standard for LED lamps with voltages ≤ 50 V may follow in due time.

Future work will also consequently comprise performance standards for all kind of LED lamps, including minimum photometric requirements for type testing.

Due to the urgent need of establishing this standard, it will be a stand-alone standard for the time being, not excluding a future relocation as a part of IEC 60968, self-ballasted lamps.

SELF-BALLASTED LED-LAMPS FOR GENERAL LIGHTING SERVICES BY VOLTAGE > 50 V – SAFETY SPECIFICATIONS

1 Scope

This International Standard specifies the safety and interchangeability requirements, together with the test methods and conditions required to show compliance of LED-lamps with integrated means for stable operation (self-ballasted LED-lamps), intended for domestic and similar general lighting purposes, having:

– a rated wattage up to 60 W;

– a rated voltage of > 50 V up to 250 V;

– caps according to Table 1.

The requirements of this standard relate only to type testing.

Recommendations for whole product testing or batch testing are identical to those given in Annex C of IEC 62031.

NOTE 1 Where in this standard the term “lamp(s)” is used, it is understood to stand for “self-ballasted LED-lamp(s)”, except where it is obviously assigned to other types of lamps.

〈A1〉 NOTE 2 This standard includes photobiological safety. 〈A1〉

〈A11〉 NOTE Z1 Radio equipment can be part of the Self-Ballasted lamp. 〈A11〉

2 Normative references

The following reference documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the reference document (including any amendments) applies.

IEC 60061-1, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 1 : Lamp caps*

IEC 60061-3, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 3 : Gauges*

IEC 60360, *Standard method of measurement of lamp cap temperature rise*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 60598-1:2008, *Luminaires – Part 1: General requirements and tests*

IEC 60695-2-10:2000, *Fire hazard testing – Part 2-10: Glowing/hot-wire based test methods; Glow-wire apparatus and common test procedure*

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*

IEC 60695-2-12:2000, *Fire hazard testing – Part 2-12: Glowing/hot-wire based test methods; Glow-wire flammability test method for materials*