

**EDISONKEERMEGA LAMBIPESAD**

**Edison screw lampholders (IEC 60238:2016 +  
IEC 60238:2016/A1:2017 + COR1:2018 +  
IEC 60238:2016/A2:2020)**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN IEC 60238:2018+A1+A2:2021 sisaldab Euroopa standardi EN IEC 60238:2018 ja selle muudatuste A1:2018 ja A2:2021 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 60238:2018+A1+A2:2021 consists of the English text of the European standard EN IEC 60238:2018 and its amendments A1:2018 and A2:2021.
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Muudatusega A1 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega <b>A1</b> <b>A1</b> .  Muudatusega A2 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega <b>A2</b> <b>A2</b> .  Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The start and finish of text introduced or altered by amendment A1 is indicated in the text by tags <b>A1</b> <b>A1</b> .  The start and finish of text introduced or altered by amendment A2 is indicated in the text by tags <b>A2</b> <b>A2</b> .  The standard is available from the Estonian Centre for Standardisation and Accreditation.

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English Version

Edison screw lampholders  
(IEC 60238:2016 + IEC 60238:2016/A1:2017 + COR1:2018 +  
IEC 60238:2016/A2:2020)

Douilles à vis Edison pour lampes  
(IEC 60238:2016 + IEC 60238:2016/A1:2017 +  
COR1:2018 + IEC 60238:2016/A2:2020)

Lampenfassungen mit Edisongewinde  
(IEC 60238:2016 + IEC 60238:2016/A1:2017 +  
COR1:2018 + IEC 60238:2016/A2:2020)

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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

## European foreword

The text of document 34B/1852/FDIS, future edition 9 of IEC 60238, prepared by SC 34B "Lamp caps and holders" of IEC/TC 34 "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60238:2018.

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 2018-09-23
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IEC 60061	NOTE	Harmonized in EN 60061 series.
IEC 60061-4	NOTE	Harmonized as EN 60061-4.
IEC 60068-2-20	NOTE	Harmonized as EN 60068-2-20.
IEC 60335-1:2001	NOTE	Harmonized as EN 60335-1:2002 (modified).
IEC 60335-2-24:2002	NOTE	Harmonized as EN 60335-2-24:2003 (not modified).
IEC 60598	NOTE	Harmonized in EN 60598 series.
IEC 60664-1	NOTE	Harmonized as EN 60664-1.
IEC 60695-2-10	NOTE	Harmonized as EN 60695-2-10.

**A1** Amendment A1 European foreword

The text of document 34B/1887/FDIS, future edition 9 of IEC 60238:2016/A1:2017, prepared by IEC/SC 34B "Lamp caps and holders, of IEC technical committee 34: Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60238:2017/A1:2018.

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- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-02-10
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IEC 60664-4:2005	NOTE	Harmonized as EN 60664-4:2006 (not modified).
IEC 61347-1:2015	NOTE	Harmonized as EN 61347-1:2015 (not modified).

**A1**

## **A<sub>2</sub>** Amendment A2 European foreword

The text of document 34B/2029/CDV, future IEC 60238/A2, prepared by SC 34B "Lamp caps and holders" of IEC/TC 34 "Lighting" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60238:2018/A2:2021.

The following dates are fixed:

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# CONSOLIDATED VERSION

# VERSION CONSOLIDÉE



**Edison screw lampholders**

**Douilles à vis edison pour lampes**



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# CONSOLIDATED VERSION

# VERSION CONSOLIDÉE



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**Edison screw lampholders**

**Douilles à vis edison pour lampes**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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**EDISON SCREW LAMPHOLDERS****FOREWORD**

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International Standard IEC 60238 has been prepared by subcommittee 34B: Lamp caps and holders, of IEC technical committee 34: Lamps and related equipment.

This ninth edition cancels and replaces the eighth edition published in 2004, Amendment 1: 2008 and Amendment 2:2011. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Addition of a pull test for certain E5 and E10 lampholders.
- b) Annex D listing amended requirements/clauses which require products to be retested.

The text of this standard is based on the following documents:

FDIS	Report on voting
34B/1852/FDIS	34B/1860/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

In this standard, the following print types are used:

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**AMENDMENT A1 FOREWORD**

This amendment has been prepared by subcommittee 34B: Lamp caps and holders, of IEC technical committee 34: Lamps and related equipment.

The text of this amendment is based on the following documents:

FDIS	Report on voting
34B/1887/FDIS	34B/1892/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

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The contents of the corrigendum of January 2018 have been included in this copy. **AMENDMENT A1**

## **A2** AMENDMENT A2 FOREWORD

This amendment has been prepared by subcommittee 34B: Lamp caps and holders, of IEC technical committee 34: Lamps and related equipment.

The text of this amendment is based on the following documents:

CDV	Report on voting
34B/2029/CDV	34B/2040A/RVC

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## **A<sub>2</sub>** INTRODUCTION to Amendment 2

Some changes and corrections needed for IEC 60238 became obvious during the work relating to the consolidated Edition 9.1 of IEC 60238.

### Change 1:

Actual lamp holder safety standards require a ball pressure test in line with IEC 60695-10-2 in sections "Resistance to heat, fire and tracking". Within this test there is an alternative depth indentation method described for the calculation of the indentation diameter.

This alternative calculation option was removed from the latest edition of IEC 60695-10-2 dated 2014 and during its meeting held in Sydney in 2018, SC 34B/WG1 agreed to delete the alternative method as well from IEC 60238.

### Change 2:

Based on IEC 60664-1:2007, 4.8.1.5 "Non tracking materials":

"For glass, ceramics or other inorganic insulating materials which do not track, creepage distances need not be greater than their associated clearance for the purpose of insulation coordination. The dimensions of Table F.2 for inhomogeneous field conditions are appropriate."

This is not completely reflected in TC 34 standards as revised recently. For applications with ELV it is of high importance whether the creepage distance shall be 0,6 mm or may be 0,2 mm in the case where inorganic insulating material is used.

### Correction

In Amendment 1 to IEC 60238 Edition 9, a complete paragraph was deleted by accident. This was corrected with the publication of a corrigendum to Amendment 1, however an editorial correction needs to be made to the references to previous items, changed to table footnotes "a" and "d", as the referenced text was included in Tables 13a and 13b. **A<sub>2</sub>**

## EDISON SCREW LAMPHOLDERS

### 1 Scope

This International Standard applies to lampholders with Edison thread E14, E27 and E40, designed for connection to the supply of lamps and semi-luminaires<sup>1</sup> only.

It also applies to switched-lampholders for use in AC circuits only, where the working voltage does not exceed 250 V r.m.s.

This standard also applies to lampholders with Edison thread E5 designed for connection to the supply mains of series connected lamps, with a working voltage not exceeding 25 V, to be used indoors, and to lampholders with Edison thread E10 designed for connection to the supply mains of series connected lamps, with a working voltage not exceeding 60 V, to be used indoors or outdoors. It also applies to lampholders E10 for building-in, for the connection of single lamps to the supply. These lampholders are not intended for retail sale.

As far as it reasonably applies, this standard also covers lampholders other than lampholders with Edison thread designed for connection of series-connected lamps to the supply.

NOTE This type of lampholder is for example used in Christmas tree lighting chains.

As far as it reasonably applies, this standard also covers adapters.

This standard also covers lampholders which are, wholly or partly, integral with a luminaire or intended to be built into appliances. It covers the requirements for the lampholder only. For all other requirements, such as protection against electric shock in the area of the terminals or of the lamp cap, the requirements of the relevant appliance standard are observed and tested after building into the appropriate equipment, when that equipment is tested according to its own standard. Such lampholders as well as lampholders provided with a snap-on outer shell, for use by luminaire manufacturers only, are not for retail sale.

This standard applies to lampholders to be used indoors or outdoors in residential as well as in industrial lighting installations. It also applies to candle lampholders. In locations where special conditions prevail, as for street lighting, on board ships, in vehicles and in hazardous locations, for example where explosions are liable to occur, special constructions may be required.

This standard does not apply to three-light lampholders E26d.

This standard is based on the following data relative to lamps for general lighting service:

- caps E14 are used for lamps with a current not exceeding 2 A;
- caps E27 are used for lamps with a current not exceeding 4 A;
- caps E40 are used for lamps with a current not exceeding 16 A, or 32 A if the nominal voltage of the supply does not exceed 130 V (see 5.5 and 6.3).

Where lampholders are used in luminaires, their maximum operating temperatures are specified in IEC 60598.

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<sup>1</sup> Requirements for lampholders suitable for semi-luminaires are under consideration.

## 2 Normative references

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.

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

IEC 60061-2, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 2: Lampholders*

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

IEC 60068-2-32:1975, *Basic environmental testing procedures – Part 2-32: Tests – Test Ed: Free fall*

IEC 60068-2-75:2014, *Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests*

IEC 60112:2003, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*  
Amendment 1:2009

IEC 60227 (all parts), *Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V*

IEC 60245 (all parts), *Rubber insulated cables – Rated voltages up to and including 450/750 V*

IEC 60352-1:1997, *Solderless connections – Part 1: Wrapped connections – General requirements, test methods and practical guidance*

IEC 60399, *Barrel thread for lampholders with shade holder ring*

IEC 60417, *Graphical symbols for use on equipment* (available at: <http://www.graphical-symbols.info/equipment>)

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*  
Amendment 1:1999  
Amendment 2:2013<sup>2</sup>

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

IEC 60630, *Maximum lamp outlines for incandescent lamps*

IEC 60695-2-11:2014, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products (GWEPT)*

IEC 60695-11-5, *Fire hazard testing – Part 11-5: Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance*

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<sup>2</sup> A consolidated edition 2.2 (2013) exists including edition 2.0 (1989) and its Amendment 1 (1999) and Amendment 2 (2013).

IEC 61058-1:2000, *Switches for appliances – Part 1: General requirements*

ISO 4046-4:2002, *Paper, board, pulps and related terms – Vocabulary – Part 4: Paper and board grades and converted products*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

##### **cord-grip lampholder**

lampholder incorporating a method of retaining a flexible cord by which it may then be suspended

#### 3.2

##### **threaded entry lampholder**

lampholder incorporating a threaded component at the point of entry of the supply wires permitting the lampholder to be mounted on a mating threaded support

Note 1 to entry: A threaded entry lampholder was formerly called a “nipple lampholder”.

#### 3.3

##### **backplate lampholder**

lampholder so designed as to be suitable for mounting by means of an associated or integral backplate, directly onto a supporting surface or appropriate box

#### 3.4

##### **lampholder for building-in**

lampholder designed to be built into a luminaire, an additional enclosure or the like

##### 3.4.1

##### **unenclosed lampholder**

lampholder for building-in so designed that it requires additional means, for example an enclosure, to meet the requirements of this standard with regard to protection against electric shock

##### 3.4.2

##### **enclosed lampholder**

lampholder for building-in so designed that on its own it fulfils the requirements of this standard with regard to protection against electric shock and IP classification, if appropriate

#### 3.5

##### **independent lampholder**

lampholder so designed that it can be mounted separately from a luminaire and at the same time providing all the necessary protection according to its classification and marking

#### 3.6

##### **terminal/contact assembly**

part or assembly of parts which provides a means of connection between the termination of a supply conductor and the contact making surfaces of the corresponding lamp cap

Note 1 to entry: For clarification of some definitions, see also Figure 17.

#### 3.7

##### **outer shell**

cylindrical component protecting the user from contact with the lamp cap.