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Standards

Irish Standard  
I.S. EN 60432-3:2013

# Incandescent lamps - Safety specifications -- Part 3: Tungsten-halogen lamps (non-vehicle) (IEC 60432-3:2012 (EQV))

## I.S. EN 60432-3:2013

*Incorporating amendments/corrigenda issued since publication:*

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I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

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**I.S. EN 60432-3:2013**

**EUROPEAN STANDARD**  
**NORME EUROPÉENNE**  
**EUROPÄISCHE NORM**

**EN 60432-3**

January 2013

ICS 29.140.20

Supersedes EN 60432-3:2003 + A1:2005 + A2:2008

English version

**Incandescent lamps -  
Safety specifications -  
Part 3: Tungsten-halogen lamps (non-vehicle)  
(IEC 60432-3:2012)**

Lampes à incandescence -  
Prescriptions de sécurité -  
Partie 3: Lampes tungstène-halogène  
(véhicules exceptés)  
(CEI 60432-3:2012)

Glühlampen -  
Sicherheitsanforderungen -  
Teil 3: Halogen-Glühlampen  
(Fahrzeuglampen ausgenommen)  
(IEC 60432-3:2012)

This European Standard was approved by CENELEC on 2012-08-08. 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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 34A/1567/FDIS, future edition 2 of IEC 60432-3, 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 60432-3:2013.

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) 2013-07-18
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-08-08

This document supersedes EN 60432-3:2003 + A1:2005 + A2:2008.

EN 60432-3:2013 includes the following significant technical changes with respect to EN 60432-3:2003 + A1:2005 + A2:2008:

- adapting the cold fill pressure requirements and tests for self-shielded lamps to the state of the technology;
- introduction of requirements to fully cover photobiological safety according to EN 62471.

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 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 60432-3:2012 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 60127-2	NOTE	Harmonised as EN 60127-2.
IEC 60269-3	NOTE	Harmonised as HD 60269-3.
IEC 60335-2-56:2002	NOTE	Harmonised as EN 60335-2-56:2003 (not modified).
IEC 60432-2:1999	NOTE	Harmonised as EN 60432-2:2000 (modified).
IEC 60432-2:1999/A1:2005	NOTE	Harmonised as EN 60432-2:2000/A1:2005 (modified).
IEC 60598-1	NOTE	Harmonised as EN 60598-1.
IEC 60598-2 Series	NOTE	Harmonised as EN 60598-2 Series (partially modified).
IEC 60682	NOTE	Harmonised as EN 60682.
IEC 60838-1	NOTE	Harmonised as EN 60838-1.

## 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-845	-	International Electrotechnical Vocabulary (IEV) - Chapter 845: Lighting	-	-
IEC 60061-1	-	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1: Lamp caps	EN 60061-1	-
IEC 60061-3	-	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3: Gauges	EN 60061-3	-
IEC 60061-4	-	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 4: Guidelines and general information	EN 60061-4	-
IEC 60357	-	Tungsten halogen lamps (non-vehicle) - Performance specifications	EN 60357	-
IEC 60432-1 (mod)	1999	Incandescent lamps - Safety specifications - Part 1: Tungsten filament lamps for domestic and similar general lighting purposes	EN 60432-1	2000
IEC 62471	-	Photobiological safety of lamps and lamp systems	EN 62471	-
IEC/TR 62471-2	-	Photobiological safety of lamps and lamp systems - Part 2: Guidance on manufacturing requirements relating to non-laser optical radiation safety	-	-

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **INCANDESCENT LAMPS – SAFETY SPECIFICATIONS –**

#### **Part 3: Tungsten halogen lamps (non-vehicle)**

#### **FOREWORD**

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60432-3 has been prepared by subcommittee 34A: Lamps, of IEC technical committee 34: Lamps and related equipment.

This second edition of IEC 60432-3 cancels and replaces the first edition published in 2002, Amendment 1 (2005) and Amendment 2 (2008). The document 34A/1567/FDIS, circulated to the National Committees as Amendment 3, led to the publication of this new edition.

The main changes with respect to the previous edition are as follows:

- adapting the cold fill pressure requirements and tests for self-shielded lamps to the state of the technology,
- introduction of requirements to fully cover photobiological safety according to IEC 62471.

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The text of this standard is based on the first edition, its Amendments 1 and 2, and the following documents:

FDIS	Report on voting
34A/1567/FDIS	34A/1585/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.

A list of all the parts in the IEC 60432 series, published under the general title *Incandescent lamps – Safety specifications* can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## INCANDESCENT LAMPS – SAFETY SPECIFICATIONS –

### Part 3: Tungsten halogen lamps (non-vehicle)

#### 1 General

##### 1.1 Scope

This part of IEC 60432 specifies the safety requirements for single-capped and double-capped tungsten halogen lamps, having rated voltages of up to 250 V, used for the following applications:

- projection (including cinematograph and still projection),
- photographic (including studio),
- floodlighting,
- special purpose,
- general purpose,
- stage lighting,

This International Standard does not apply to general purpose single-capped tungsten halogen lamps, covered by IEC 60432-2, that are used as replacement for conventional tungsten filament lamps.

This part of IEC 60432 covers photobiological safety according to IEC 62471 and IEC/TR 62471-2. Lamps covered by this part of IEC 60432 do not reach risk levels that require risk group marking if they are

- a) floodlight lamps,
- b) general purpose capsule lamps, or
- c) general purpose reflector lamps.

##### 1.2 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 60050-845, *International Electrotechnical Vocabulary – Part 845: Lighting*  
Available from: <http://www.electropedia.org/>

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 60061-4, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 4: Guidelines and general information*

IEC 60357, *Tungsten halogen lamps (non-vehicle) – Performance specifications*

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