STN	Výbojkové svetelné zdroje (okrem žiariviek). Požiadavky na bezpečnosť.	STN EN 62035
		36 0220

Discharge lamps (excluding fluorescent lamps) - Safety specifications

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/15

Obsahuje: EN 62035:2014, IEC 62035:2014

Oznámením tejto normy sa od 15.09.2017 ruší STN EN 62035 (36 0220) z decembra 2001

### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 62035

December 2014

ICS 29.140.30

Supersedes EN 62035:2000

#### **English Version**

# Discharge lamps (excluding fluorescent lamps) - Safety specifications (IEC 62035:2014, modified)

Lampes à décharge (à l'exclusion des lampes à fluorescence) - Prescriptions de sécurité (CEI 62035:2014, modifiée) Entladungslampen (ausgenommen Leuchtstofflampen) -Sicherheitsanforderungen (IEC 62035:2014 , modifiziert)

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European Committee for Electrotechnical Standardization Comité Européen de Normalisation Electrotechnique Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

#### **Foreword**

This document (EN 62035:2014) consists of the text of IEC 62035:2014 prepared by SC 34A "Lamps", of IEC/TC 34 "Lamps and related equipment", together with the common modifications prepared by CLC/TC 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)	2015-09-15
•	latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2017-09-15

This document supersedes EN 62035:2000.

EN 62035:2014 includes the following significant technical changes with respect to EN 62035:2000.

Photobiological safety requirements are taken care of on basis of the risk group concept of EN 62471 and the technical report IEC/TR 62778 on blue light hazard. This has consequences for terms, marking, structure of 4.6, and introduction of a new symbol "Caution, do not stare at light source". Special attention is given to blue light hazard.

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).

EN 62035:2014

#### **Endorsement notice**

The text of the International Standard IEC 62035:2014 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:

IE	EC 60432-1	NOTE	Harmonized as EN 60432-1.
IE	EC 60927	NOTE	Harmonized as EN 60927.
IE	EC 60598-1	NOTE	Harmonized as EN 60598-1.
IE	EC 61347-2-9	NOTE	Harmonized as EN 61347-2-9.

#### **COMMON MODIFICATIONS**

Delete all references to E26 and E39 lamp caps in the following clauses and figures:

Annex A	Data sheet references of IEC 60061 (Table A.1)
Annex B	Torsion test values (Table B.2)
Annex C	Torsion test holders (Figure C.1)
Annex F	Maximum lamp cap temperatures (Table F.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 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: <a href="www.cenelec.eu">www.cenelec.eu</a>.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60050	-	International Electrotechnical Vocabulary (IEV)	-	-
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 60061-2	-	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2: Lampholders	EN 60061-2	-
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		-
IEC 60155	-	Glow-starters for fluorescent lamps	EN 60155	-
IEC 60662	-	High pressure sodium vapour lamps - Performance specifications	EN 60662	-
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 60923	-	Auxiliaries for lamps - Ballasts for discharge lamps (excluding tubular fluorescent lamps) - Performance requirements	EN 60923	-
IEC 61167	-	Metal halide lamps - Performance specification	EN 61167	-
IEC 61347-2-1	-	Lamp controlgear - Part 2-1: Particular requirements for starting devices (other than glow starters)	EN 61347-2-1	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC/TR 62778	-	Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires	-	-
ISO 4046-4	2002	Paper, board, pulps and related terms - Vocabulary - Part 4: Paper and board grades and converted products	-	-



IEC 62035

Edition 2.0 2014-04

# INTERNATIONAL STANDARD

Discharge lamps (excluding fluorescent lamps) – Safety specifications





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IEC 62035

Edition 2.0 2014-04

# INTERNATIONAL STANDARD

Discharge lamps (excluding fluorescent lamps) - Safety specifications

INTERNATIONAL ELECTROTECHNICAL COMMISSION

PRICE CODE



ICS 29.140.30 ISBN 978-2-8322-1516-6

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### CONTENTS

FC	DREWO	₹D	5
1	Scope	9	7
2	Norm	ative references	7
3	Terms	s and definitions	8
4		ral safety requirements	
		General	
		Marking	
	4.2.1	Lamp marking	
	4.2.2	Additional information to be provided	
	4.3	Mechanical requirements	
	4.3.1	Requirements for caps	
	4.3.2	Construction and assembly	
	4.4	Electrical requirements	
	4.4.1	Parts which can become accidentally live	13
	4.4.2	Insulation resistance	13
	4.4.3	Electric strength	13
	4.5	Thermal requirements	14
	4.5.1	General	14
	4.5.2	Resistance to heat	14
	4.5.3	Resistance to abnormal heat and fire	15
	4.6	Photobiological requirements	15
	4.6.1	UV Hazard	15
	4.6.2	Blue light hazard	16
	4.6.3	IR hazard	16
5	Partic	ular safety requirements	17
	5.1	High-pressure sodium vapour lamps	17
	5.2	Metal halide lamps	17
	5.2.1	General	17
	5.2.2	Marking	17
	5.2.3	Containment	17
6	Inforn	nation for luminaire design	17
7	Asses	ssment	17
	7.1	General	17
	7.2	Assessment of whole production by means of manufacturer's records	18
	7.2.1	General	
	7.2.2	Assessment of manufacturer's records for particular tests	19
	7.2.3	Sampling procedures for the whole production testing	19
	7.3	Assessment of batches	23
	7.3.1	Sampling for batch testing	23
	7.3.2	Number of lamps in batch sample	23
	7.3.3	Sequence of the tests	23
	7.3.4	Rejection conditions for large batches (>500 lamps)	23
	7.3.5	Rejection conditions for small batches (≤500 lamps)	24
Ar	nnex A (ı	normative) List of lamp caps and gauges	26
Ar	nnex B (ı	normative) Pull and torsion test values	27

Annex C (	normative) Torsion test holders	28
Annex D (	normative) Information for thermal tests	30
	normative) Measurement of pulse height for lamps with internal starting	31
E.1	Introduction	31
E.2	Test circuit	31
E.2.1	Test circuit and key	31
E.2.2	Ballast characteristics	31
E.2.3	Power factor capacitor	32
E.2.4	Pulse height measuring circuit	32
E.3	Tests	32
E.3.1	Lamps with an internal glow switch	32
E.3.2	Lamps with an internal thermal switch	32
Annex F (	informative) Information for luminaire design	34
F.1	Guidelines for safe lamp operation	34
F.2	Maximum lamp cap temperature	34
F.3	Cap/holder – key configuration	34
F.4	Protection against lamp shattering	34
F.5	Protection against UV radiation	35
F.6	Possible condition at end of lamp life	35
Annex G (	normative) Conditions of compliance for design tests	36
G.1	Insulation resistance (see 4.4.2) Electric strength (see 4.4.3)	36
G.2	Cap construction and assembly (see 4.3.2.2 b) and 4.3.2.3 b))	
G.3	Cap creepage distance (see 4.3.1.2) Resistance to heat (see 4.5.2.1 and 4.5.2.2) Resistance to abnormal heat and fire (see 4.5.3.1) Pulse height (see 5.1.) UV radiation (see 4.6.1.3)	
Annex H (	normative) Symbols	
H.1	General	
H.2	Symbol indicating that the lamp shall be operated only in a luminaire	57
11.2	provided with a protective shield	37
H.3	Symbol indicating that the lamp emits a high level of UV radiation	37
H.4	Symbol indicating that the lamp shall not be operated when the outer bulb is	
	broken	37
H.5	Self-shielded lamp symbol indicating that the lamp can be operated in a luminaire without a protective shield	38
H.6	Symbol indicating not to stare at a light source, for example, a lamp, a	
<b>A</b> 1 /	luminaire, a video projector etc.	38
Annex I (r	normative) Containment testing procedure for metal halide lamps with quartz	30
I.1	General	
I. I I. 1. 1	Purpose	
1.1.1	Test description	
1.1.2	Experimental setup	
1.2.1	Safety precautions	
1.2.1	Electrical circuit	
1.2.2	Enclosure requirements	
1.2.3	Test procedures	
I.3.1	Lamp selection and preparation	
1.3.2	Determination of median rupture energy	
	- r	

I.3.3 Rup	ture test procedure	42
I.4 Self-shie	lded lamp design	42
I.4.1 Defi	nition of damage to the outer bulb	42
	ermination of self-shielded	42
	e) Containment testing procedure for metal halide lamps with	
•	oose	
	t description	
•	ental setupety precautions	
	ety precautions	
	losure requirements	
	cedures	
•	p selection and preparation	
	ermination of median rupture energy	
	ture test procedure	
J.4 Self-shie	lded lamp design	45
J.4.1 Defi	nition of damage to the outer bulb	45
J.4.2 Dete	ermination of containment rating	45
Bibliography		47
Figure 1 – Edison s	screw-capped lamp	13
Figure C.1 – Holde	r for torsion test on lamps with Edison screw caps	28
Figure C.2 – Holde	r for torsion test on lamps with bayonet caps	29
Figure D.1 – Ball p	ressure test apparatus	30
Figure E.1 – Test c	ircuit	31
Figure I.1 – Basic e	electrical diagram for quartz metal halide lamp containment test	40
<u>-</u>	cal diagram for containment test	
Table 1 – Classifica	ation of risk groups	15
	of test records – Sampling and acceptable quality levels (AQL)	
. •	nce numbers AQL = 0,65 %	
•	nce numbers AQL = 2,5 %	
•	mple size and rejection number (for batches >500 lamps)	
	·	
	mple size and rejection number (for batches ≤500 lamps)	
	heet references of IEC 60061	
	st values	
Table B.2 – Torsion	n test values	27
Table D.1 – Tempe	ratures	30
Table E.1 – Test ba	allast resonance characteristics	32
Table E.2 – Power	factor capacitor values for tests	32
Table F.1 – Maximi	um lamp cap temperatures	34

#### INTERNATIONAL ELECTROTECHNICAL COMMISSION

#### DISCHARGE LAMPS (EXCLUDING FLUORESCENT LAMPS) – SAFETY SPECIFICATIONS

#### **FOREWORD**

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International Standard IEC 62035 has been prepared by subcommittee 34A: Lamps, of IEC technical committee 34: Lamps and related equipment.

This second edition cancels and replaces the first edition published in 1999, AMD1:2003 and AMD2:2012. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition. Photobiological safety requirements are taken care of on basis of the risk group concept of IEC 62471 and the technical report IEC TR 62778 on blue light hazard. This has consequences for terms, marking, structure of 4.6, and introduction of a new symbol "Caution, do not stare at light source". Special attention is given to blue light hazard.

**-6-**

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

CDV	Report on voting
34A/1600/CDV	34A/1643/RVC

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.

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

A bilingual version of this publication may be issued at a later date.

#### DISCHARGE LAMPS (EXCLUDING FLUORESCENT LAMPS) – SAFETY SPECIFICATIONS

#### 1 Scope

This International Standard specifies the safety requirements for discharge lamps (excluding fluorescent lamps) for general lighting purposes.

This International Standard is applicable to low-pressure sodium vapour lamps and to high-intensity discharge (HID) lamps, i.e. high-pressure mercury vapour lamps (including blended lamps), high-pressure sodium vapour lamps and metal halide lamps. It applies to single- and double-capped lamps, having caps as listed in Annex A.

This standard only concerns safety criteria and does not take into account performance. The performance standards IEC 60188, IEC 60192, IEC 60662, IEC 61167 and IEC 61549 should be referred to for such characteristics.

It may be expected that lamps which comply with this standard will operate safely at supply voltages between 90 % and 110 % of rated supply voltage and when operated with a ballast complying with IEC 61347-2-9 and IEC 60923, with a starting device complying with IEC 61347-2-1 and IEC 60927, and in a luminaire complying with IEC 60598-1.

#### 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, International Electrotechnical Vocabulary (available at <a href="http://www.electropedia.org">http://www.electropedia.org</a>)

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

IEC 60155, Glow-starters for fluorescent lamps

IEC 60662, High-pressure sodium vapour lamps

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

-8-

IEC 60923, Auxiliaries for lamps – Ballasts for discharge lamps (excluding tubular fluorescent lamps) – Performance requirements

IEC 61347-2-1, Lamp controlgear – Part 2-1: Particular requirements for starting devices (other than glow starters)

IEC 61167, Metal halide lamps - Performance specification

IEC TR 62778, Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires

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

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