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SIST EN 62035:2000

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English version

**Discharge lamps (excluding fluorescent lamps)
Safety specifications
(IEC 62035:1999, modified)**

Lampes à décharge
(à l'exclusion des lampes à
fluorescence)
Prescriptions de sécurité
(CEI 62035:1999, modifiée)

Entladungslampen
(ausgenommen Leuchtstofflampen)
Sicherheitsanforderungen
(IEC 62035:1999, modifiziert)

This European Standard was approved by CENELEC on 1999-12-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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 document 34A/885/FDIS, future edition 1 of IEC 62035, prepared by SC 34A, Lamps, of IEC TC 34, Lamps and related equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC, together with common modifications, prepared by CLC/SR 34A, as EN 62035 on 1999-12-01.

This standard replaces and combines the safety requirements previously contained in EN 60188:1988, EN 60192:1993, EN 60662:1993 and EN 61167:1994.

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) 2000-09-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2002-12-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annexes A to E and ZA are normative and annex F is informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62035:1999 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

Lamps with the following caps are excluded from this European Standard:

E26
E39

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Annex ZA (normative)

**Normative references to international publications
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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	1987	International electrotechnical vocabulary Chapter 845: Lighting	-	-
IEC 60061-1 + supplements (mod)	1969	Lamp caps and holders together with gauges for the control of interchangeability and safety Part 1: Lamp caps	EN 60061-1 + amendments	1993
IEC 60061-2 + supplements (mod)	1969	Part 2: Lampholders	EN 60061-2 + amendments	1993
IEC 60061-3 + supplements (mod)	1969	Part 3: Gauges	EN 60061-3 + amendments	1993
IEC 60061-4 + supplements (mod)	1990	Part 4: Guidelines and general information	EN 60061-4 + amendments	1992
IEC 60155	1993	Glow-starters for fluorescent lamps	EN 60155	1995
IEC 60598-1 (mod)	1996	Luminaires Part 1: General requirements and tests	EN 60598-1 + corr. June + A12 + A13	1997 1999 1998 1999
IEC 60662	1980	High-pressure sodium vapour lamps	EN 60662 ¹⁾	1993
IEC 60695-2-1/0	1994	Fire hazard testing Part 2: Test methods Section 1/sheet 0: Glow-wire test methods General	EN 60695-2-1/0	1996

1) EN 60662 includes A2:1987 + A3:1990 to IEC 60662.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60922	1997	Auxiliaries for lamps - Ballasts for discharge lamps (excluding tubular fluorescent lamps) General and safety requirements	EN 60922	1997
IEC 60923	1995	Auxiliaries for lamps - Ballasts for discharge lamps (excluding tubular fluorescent lamps) Performance requirements	EN 60923	1996
IEC 60926 (mod)	1995	Auxiliaries for lamps - Starting devices (other than glow starters) - General and safety requirements	EN 60926	1996
IEC 60927	1996	Auxiliaries for lamps - Starting devices (other than glow starters) - Performance requirements	EN 60927	1996
IEC 61167	1992	Metal halide lamps	EN 61167	1994
ISO 4046	1978	Paper, board, pulp and related terms Vocabulary	-	-

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Lampes à décharge
(à l'exclusion des lampes à fluorescence) –
Prescriptions de sécurité

Discharge lamps
(excluding fluorescent lamps) –
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SIST EN 62035:2000

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

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

This standard replaces and combines the safety requirements previously contained in IEC 60188, IEC 60192, IEC 60662 and IEC 61167.

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

FDIS	Report on voting
34A/885/FDIS	34A/899/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 ISO/IEC Directives, Part 3.

Annexes A, B, C, D and E form an integral part of this standard.

Annex F is for information only.

The committee has decided that this publication remains valid until 2002-09. At this date, in accordance with the committee's decision, the publication will be

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

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.

The requirements of this standard relate only to type testing. Conditions of compliance, including methods of statistical assessment, are under consideration.

NOTE 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 60922 and IEC 60923, with a starting device complying with IEC 60926 and IEC 60927, and in a luminaire complying with IEC 60598-1.

[SIST EN 62035:2000](https://standards.iteh.ai/catalog/standards/sist/8152a136-32e8-467e-8f7f-c297d02d2f97/sist-en-62035-2000)

2 Normative references

<https://standards.iteh.ai/catalog/standards/sist/8152a136-32e8-467e-8f7f-c297d02d2f97/sist-en-62035-2000>

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

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*

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

IEC 60662, *High-pressure sodium vapour lamps*

IEC 60695-2-1/0, *Fire hazard testing – Part 2: Test methods – Section 1/Sheet 0: Glow-wire test methods – General*

IEC 60922, *Auxiliaries for lamps – Ballasts for discharge lamps (excluding tubular fluorescent lamps) – General and safety requirements*

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

IEC 60926, *Auxiliaries for lamps – Starting devices (other than glow starters) – General and safety requirements*

IEC 60927, *Auxiliaries for lamps – Starting devices (other than glow starters) – Performance requirements*

IEC 61167, *Metal halide lamps*

ISO 4046, *Paper, board, pulp and related terms – Vocabulary*

3 Definitions

For the purposes of this International Standard, the following terms and definitions apply, as well as others given in IEC 60050(845).

3.1

high-intensity discharge lamp; HID lamp

electric discharge lamp in which the light-producing arc is stabilized by wall temperature and the arc has a bulb wall loading in excess of 3 watts per square centimetre

NOTE HID lamps include groups of lamps known as high-pressure mercury, metal halide and high-pressure sodium lamps.

[IEV 845-07-19]

3.2

high-pressure mercury (vapour) lamp

high-intensity discharge lamp in which the major portion of the light is produced, directly or indirectly, by radiation from mercury operating at a partial pressure in excess of 100 kilopascals

NOTE This term covers clear, phosphor coated (mercury fluorescent) and blended lamps. In a fluorescent mercury discharge lamp, the light is produced partly by the mercury vapour and partly by the layer of phosphors excited by the ultraviolet radiation of the discharge.

[IEV 845-07-20]

3.3

blended lamp; self-ballasted mercury lamp (USA)

lamp containing in the same bulb certain elements of a mercury vapour lamp and an incandescent lamp filament connected in series

NOTE The bulb may be diffusing or coated with phosphors.

[IEV 845-07-21, modified]