SLOVENSKI STANDARD
SIST EN 60923:2001

01-marec-2001

Auxiliaries for lamps - Ballasts for discharge lamps (excluding tubular fluorescent lamps) - Performance requirements

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Geräte für Lampen - Vorschaltgeräte für Entladungslampen (ausgenommen röhrenförmige Leuchtstofflampen) - Anforderungen an die Arbeitsweise

Appareils auxiliaires pour lampes - Ballasts pour lampes à décharge (à l'exclusion des lampes tubulaires à fluorescence) - Prescriptions de performance

Ta slovenski standard je istoveten z: **EN 60923:1996**

ICS:

29.140.30	Fluorescenţne sijalke. Sijalke	Fluorescent lamps. Discharge lamps

SIST EN 60923:2001 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60923

May 1996

ICS 29.140.30

Supersedes EN 60923:1991

Descriptors: Lighting equipment, discharge lamp, mercury vapor lamp, sodium vapor lamp, reference ballast, electrical characteristic, performance characteristic, marking

English version

Auxiliaries for lamps - Ballasts for discharge lamps (excluding tubular fluorescent lamps) - Performance requirements (IEC 923:1995)

Appareils auxiliaires pour lampes
Ballasts pour lampes à décharge
(à l'exclusion des lampes tubulaires
à fluorescence) - Prescriptions de
performance
(CEI 923:1995)

Geräte für Lampen - Vorschaltgeräte
für Entladungslampen (ausgenommen
röhrenförmige Leuchtstofflampen)
Anforderungen an die Arbeitsweise
(IEC 923:1995)

This European Standard was approved by CENELEC on 1995-09-20. 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, 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 34C/312 + 312A/FDIS, future amendment to IEC 923:1988, prepared by SC 34C, Auxiliaries for discharge lamps, of IEC TC 34, Lamps and related equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A3 to EN 60923:1991 on 1995-09-20.

The text of this document, together with that of IEC 923:1988 and its amendments 1:1990 and 2:1994, was published by IEC as the second edition of IEC 923 in October 1995. According to a decision of principle taken by the Technical Board of CENELEC, the approval of EN 60923:1991/A3 has been converted into the approval of a new EN 60923.

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) 1996-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1996-07-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annexes A, B, C, D and ZA are normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 923:1995 was approved by CENELEC as a European Standard without any modification.

NOTE: The following editorial changes apply to the text of IEC 923:1995:

Delete subclause 4.2 and table 1.

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.

Publication	Year	Title	EN/HD	Year
IEC 188 (mod)	1974	High-pressure mercury vapour lamps	EN 60188[1)]	1988
IEC 192	1973	Low-pressure sodium vapour lamps	EN 60192[2)]	1993
IEC 410	1973	Sampling plans and procedures for inspection by attributes	-	-
IEC 555-2 (mod)	1982	Disturbances in supply systems caused by household appliances and similar electrical equipment Part 2: Harmonics	EN 60555-2[3)]	1987
A2	1988		-	-
IEC 662	1980	High-pressure sodium vapour lamps	EN 60662[4)]	1993
IEC 921 (mod)	1988	Ballasts for tubular fluorescent lamps Performance requirements	EN 60921	1991
IEC 922	1989	Ballasts for discharge lamps (excluding tubular fluorescent lamps) - General and safety requirements	EN 60922	1991
IEC 926 (mod)	1990	Starting devices (other than glow starters) General and safety requirements	EN 60926[5)]	1990

1) EN 60188 includes A1:1976 + A2:1979 + A3:1984 to IEC 188.

2) EN 60192 includes A1:1979 + A2:1988 + A3:1992 to IEC 192.

3) EN 60555-2 includes A1:1985 to IEC 555-2; it is superseded by EN 61000-3-2:1995, which is based on IEC 1000-3-2:1995.

4) EN 60662 includes A2:1987 + A3:1990 to IEC 662.

5) EN 60926 is superseded by EN 60926:1996, which is based on IEC 926:1995, mod.

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Deuxième édition
Second edition
1995-10

Appareils auxiliaires pour lampes – Ballasts pour lampes à décharge (à l'exclusion des lampes tubulaires à fluorescence) – Prescriptions de performance

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

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUXILIARIES FOR LAMPS – BALLASTS FOR DISCHARGE LAMPS (EXCLUDING TUBULAR FLUORESCENT LAMPS) – PERFORMANCE REQUIREMENTS

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 cooperation 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. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 923 has been prepared by sub-committee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

This second edition cancels and replaces the first edition published in 1988, amendment 1 (1990) and amendment 2 (1994). This second edition constitutes a technical revision.

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

FDIS	Report on voting
34C/312/FDIS	34C/334/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.

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

INTRODUCTION

This standard covers performance requirements for ballasts for discharge lamps. It is to be read in conjunction with IEC 922, with which all ballasts covered by the present standard shall comply.

In order to obtain satisfactory performance of discharge lamps and their associated ballasts, it is necessary that certain features of their design be properly coordinated. Therefore, it is essential that specifications for them be written in terms of measurements made against some common baseline of reference, which should be permanent and reproducible.

These conditions may be fulfilled by special or selected inductive-type ballasts, called "reference ballasts". These ballasts may be used for testing ordinary ballasts and for the selection of reference lamps.

Moreover, the testing of ballasts requires a clear definition of testing methods. This testing will, in general, be made with reference lamps and, in particular, by comparing results obtained on such lamps with these ballasts and with the reference ballast.

Because of the special characteristics of discharge lamps, two ranges of supply voltage variation had to be considered. Whenever safety is involved, the classical range of variation from 90 % to 110 % of the rated supply voltage is retained, but for certain clauses where only operational conditions are concerned a smaller range from 92 % to 106 % of the rated value has been considered.

AUXILIARIES FOR LAMPS – BALLASTS FOR DISCHARGE LAMPS (EXCLUDING TUBULAR FLUORESCENT LAMPS) – PERFORMANCE REQUIREMENTS

Section 0: General requirements

1 Scope

This standard specifies performance requirements for ballasts for discharge lamps such as high-pressure mercury vapour, low-pressure sodium vapour, high-pressure sodium vapour and metal halide lamps. Each section details specific requirements for a particular type of ballast. The standard covers inductive type ballasts for use on a.c. supplies up to 1 000 V at 50 Hz to 60 Hz associated with discharge lamps, having rated wattage, dimensions and characteristics as specified in the relevant IEC lamp standards.

It is to be read in conjunction with IEC 922.

NOTES

1 For certain types of discharge lamps an ignitor is required.

2 Extension of the standard to cover ballasts incorporating or for use with series capacitors is under consideration.

3 The performance requirements of ballasts for tubular fluorescent lamps are covered by IEC 921.

1.1 *Normative references*

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and 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. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 188: 1974, *High-pressure mercury vapour lamps*

IEC 192: 1973, *Low pressure sodium vapour lamps*

IEC 410: 1973, *Sampling plans and procedures for inspection by attributes*

IEC 555-2: 1982, *Disturbances in supply systems caused by household appliances and similar electrical equipment – Part 2: Harmonics*
Amendment 2 (1988)

IEC 662: 1980, *High-pressure sodium vapour lamps*

IEC 921: 1988, *Ballasts for tubular fluorescent laps – Performance requirements*

IEC 922: 1989, *Ballasts for discharge lamps (excluding tubular fluorescent lamps) – General and safety requirements*

IEC 926: 1990, *Starting devices (other than glow starters) – General and safety requirements*