SLOVENSKI STANDARD
SIST EN 60926:1996

01-junij-1996

Nadomešča:
SIST EN 60926:1995

Pribor za sijalke - Starterji (ki niso tlivni starterji - Splošne in varnostne zahteve

Auxiliaries for lamps - Starting devices (other than glow starters) - General and safety requirements

Geräte für Lampen - Startgeräte (andere als Glimmstarter) - Allgemeine und Sicherheitsanforderungen

Appareils auxiliaires pour lampes - Dispositifs d'amorçage (autres que starters à lueur) - Prescriptions générales et prescriptions de sécurité

Ta slovenski standard je istoveten z: **EN 60926:1996**

ICS:

29.140.30	Fluorescenčne sijalke. Sijalke	Fluorescent lamps. Discharge lamps
29.140.99	Drugi standardi v zvezi z žarnicami	Other standards related to lamps

SIST EN 60926:1996 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60926

January 1996

ICS 29.140.30

Supersedes EN 60926:1990 and its amendment

Descriptors: Lighting equipment, discharge lamp, tubular lamp, fluorescent lamp, starting device, safety requirement

English version

Auxiliaries for lamps
Starting devices (other than glow starters)
General and safety requirements
(IEC 926:1995, modified)

Appareils auxiliaires pour lampes
Dispositifs d'amorçage (autres que starters à lueur)
Prescriptions générales et prescriptions de sécurité
(CEI 926:1995, modifiée)

Geräte für Lampen
Startgeräte (andere als Glimmstarter)
Allgemeine und Sicherheits-Anforderungen
(IEC 926:1995, modifiziert)

This European Standard was approved by CENELEC on 1995-11-28. 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(CO)278, future amendment to IEC 926, prepared by SC 34C, Auxiliaries for lamps, of IEC TC 34, Lamps and related equipment, was submitted to the IEC-CENELEC parallel vote.

The text of this document, together with that of IEC 926:1990 and its amendments 1:1992 and 2:1993, was published by IEC as the second edition of IEC 926 in January 1995.

The text of the International Standard IEC 926:1995, together with common modifications prepared by the Technical Committee CENELEC TC 34Z, Luminaires and associated equipment, was approved by CENELEC as EN 60926 on 1995-11-28.

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)	1996-09-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	1996-09-01

For products which have complied with EN 60926:1990 and its amendment A2:1994 and its corrigendum August 1994 before 1996-09-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2001-09-01.

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

Endorsement notice

The text of the International Standard IEC 926:1995 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

5 General notes on tests

5.1 Delete the note.

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 81	1984	Tubular fluorescent lamps for general lighting service	EN 60081[1]	1989
IEC 112	1979	Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions	HD 214 S2	1980
IEC 155 (mod)	1983	Starters for tubular fluorescent lamps	EN 60155[2]	1989
IEC 188 (mod)	1974	High-pressure mercury vapour lamps	EN 60188[3]	1988
IEC 192	1973	Low-pressure sodium vapour lamps	EN 60192[4]	1993
IEC 249-1	1982	Base materials for printed circuits Part 1: Test methods	EN 60249-1[5]	1993
IEC 255-8	1990	Electrical relays Part 8: Thermal electrical relays	-	-
IEC 317-1	1990	Specifications for particular types of winding wires Part 1: Polyvinyl acetal enamelled round copper wire, class 105	EN 60317-1	1994
IEC 410	1973	Sampling plans and procedures for inspection by attributes	-	-

1) EN 60081 includes A1:1987 + A2:1988 to IEC 81.

2) EN 60155 is superseded by EN 60155:1995, which is based on IEC 155:1993, *Glow-starters for fluorescent lamps*.

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

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

5) EN 60249-1 includes A1:1984 + A2:1989 + A3:1991 to IEC 249-1.

Publication	Year	Title	EN/HD	Year
IEC 417C	1977	Graphical symbols for use on equipment Index, survey and compilation of the single sheets Third supplement	HD 243 S12[6]	1995
IEC 529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 corr. May	1991 1993
IEC 598-1 (mod)	1992	Luminaires - Part 1: General requirements and tests	EN 60598-1	1993
IEC 662	1980	High-pressure sodium vapour lamps	EN 60662[7]	1993
IEC 695-2-1	1991[8]	Fire hazard testing - Part 2: Test methods Section 1: Glow-wire test and guidance	-	-
IEC 695-2-2	1991	Section 2: Needle-flame test	EN 60695-2-2	1994
IEC 817	1984	Spring-operated impact-test apparatus and its calibration	HD 495 S1	1987
IEC 920	1990	Ballast for tubular fluorescent lamps General and safety requirements	EN 60920	1991
IEC 922	1989	Ballasts for discharge lamps (excluding tubular fluorescent lamps) General and safety requirements	EN 60922	1991
IEC 927	1988	Starting devices (other than glow starters) Performance requirements	EN 60927[9]	1990
IEC 990	1990	Methods of measurement of touch-current and protective conductor current	-	-
ISO 4046	1978	Paper, board, pulp and related terms Vocabulary	-	-

6) HD 243 S12 is based on IEC 417:1973 + supplements A:1974 to M:1994.
7) EN 60662 includes A2:1987 + A3:1990 to IEC 662.
8) IEC 695-2-1:1991 is superseded by IEC 695-2-1/0 to 1/3:1994, which are being harmonized by CENELEC.
9) EN 60927 includes corrigendum December 1989 to IEC 927.

NORME INTERNATIONALE
INTERNATIONAL STANDARD

CEI
IEC
926

Deuxième édition
Second edition
1995-01

Appareils auxiliaires pour lampes – Dispositifs d'amorçage (autres que starters à lueur) – Prescriptions générales et prescriptions de sécurité

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

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUXILIARIES FOR LAMPS – STARTING DEVICES (OTHER THAN GLOW STARTERS) – General and safety 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, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.

3) They have the form of recommendations for international use 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.

International Standard IEC 926 has been prepared by sub-committee 34C: Auxiliaries for discharge lamps, of IEC technical committee 34: Lamps and related equipment.

This second edition cancels and replaces the first edition published in 1990, amendment 1 (1992) and amendment 2 (1993). 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:

DIS	Report on voting
34C(CO)278	34C/294/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.

In this standard, the following print types are used:

- requirements proper: in roman type
- *test specifications: in italic type*
- explanatory matter: in smaller roman type

Words in **bold** in the text are defined in clause 3.

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

INTRODUCTION

This standard covers general and safety requirements for starting devices for tubular fluorescent and other discharge lamps. It covers starters (other than glow starters) and ignitors with pulses up to 100 kV.

Performance requirements for these starting devices are the subject of IEC 927.

NOTE – Safety requirements ensure that electrical equipment constructed in accordance with these requirements does not endanger the safety of persons, domestic animals or property when properly installed and maintained, and used in applications for which it was intended.

This standard refers only to starting devices for use with ballasts and lamps which are internationally the most in demand.

AUXILIARIES FOR LAMPS – STARTING DEVICES (OTHER THAN GLOW STARTERS) –

General and safety requirements

Section 1: General

1 Scope

This standard specifies general and safety requirements for starting devices (starters and ignitors) for tubular fluorescent and other discharge lamps for use on a.c. supplies up to 1 000 V at 50 Hz or 60 Hz which produce starting pulses not greater than 100 kV and which are used in combination with lamps and ballasts covered in IEC 81, IEC 188, IEC 192, IEC 662, IEC 920 and IEC 922.

NOTE – A standard on metal halide lamps is under consideration.

This standard also covers starting devices for lamps which are not yet standardized.

It does not apply to glow starters or starting devices which are incorporated in discharge lamps or which are manually operated. Preheat transformers for tubular fluorescent lamps are covered by IEC 920.

Tests in this standard are type tests. Requirements for testing individual starting devices during production are not included.

NOTE – Glow starters are included in IEC 155.

2 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 81: 1984, *Tubular fluorescent lamps for general lighting service*

IEC 112: 1983, *Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions*

IEC 155: 1983, *Starters for tubular fluorescent lamps*

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

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

IEC 249: *Base materials for printed circuits*

IEC 249-1: 1982, *Part 1: Test methods*

IEC 255-8: 1990, *Electrical relays – Part 8: Thermal electrical relays*

IEC 317-1: 1990, *Specifications for particular types of winding wires – Part 1: Polyvinyl acetal enamelled round copper wire, class 105*

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

IEC 417C: 1977, *Graphical symbols for use on equipment – Index, survey and compilation of the single sheets*
Third supplement.

IEC 529: 1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 598-1: 1992, *Luminaires – Part 1: General requirements and tests*

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

IEC 695-2-1: 1991, *Fire hazard testing – Part 2: Test methods – Section 1: Glow-wire test and guidance*

IEC 695-2-2: 1991, *Fire hazard testing – Part 2: Test methods – Section 2: Needle-flame test*

IEC 817: 1984, *Spring-operated impact-test apparatus and its calibration*

IEC 920: 1990, *Ballasts for tubular fluorescent lamps – General and safety requirements*

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

IEC 927: 1988, *Starting devices (other than glow starters) – Performance requirements*

IEC 990: *Methods of measurement of touch-current and protective conductor current*

ISO 4046: 1978, *Paper board, pulp and related terms - Vocabulary*

3 Definitions

For the purpose of this standard the following definitions apply:

3.1 **starting device**: Apparatus which provides, by itself or in combination with other components in the circuit, the appropriate electrical conditions needed to start a discharge type of lamp.

3.1.1 **independent starting device**: Starting device which is intended to be mounted separately outside a luminaire and without any additional enclosure.

3.1.2 **built-in starting device**: Starting device consisting of one or more separate units, exclusively designed to be built into a luminaire, a box, an enclosure or the like.