

SLOVENSKI
STANDARD

**SIST EN 60598-2-
20:1999/A2:2004**

september 2004

Svetilke – 2-20. del: Posebne zahteve - Svetlobni nizi (IEC 60598-2-20:1996/A2:2002, spremenjen)

Luminaires - Part 2-20: Particular requirements - Lighting chains (IEC 60598-2-20:1996/A2:2002, modified)

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ICS 29.140.40

Referenčna številka
SIST EN 60598-2-20:1999/A2:2004(en)

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EUROPEAN STANDARD

EN 60598-2-20/A2

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2004

ICS 29.140.40

English version

Luminaire
Part 2-20: Particular requirements -
Lighting chains
(IEC 60598-2-20:1996/A2:2002, modified)

Luminaire
Partie 2-20: Règles particulières -
Guirlandes lumineuses
(CEI 60598-2-20:1996/A2:2002, modifiée)

Leuchten
Teil 2-20: Besondere Anforderungen -
Lichtketten
(IEC 60598-2-20:1996/A2:2002,
modifiziert)

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[SIST EN 60598-2-20:1999/A2:2004](https://standards.iteh.ai/catalog/standards/sist/b17f8424-5859-498c-b3ae-7ba27d8e7e1c/iec-60598-2-20-1996-a2-2004)

This amendment A2 modifies the European Standard EN 60598-2-20:1997; it was approved by CENELEC on 2004-02-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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 amendment 2:2002 to the International Standard IEC 60598-2-20:1996, prepared by SC 34D, Luminaires, of IEC TC 34, Lamps and related equipment, together with the common modifications prepared by the Technical Committee CENELEC TC 34Z, Luminaires and associated equipment, was submitted to the formal vote and was approved by CENELEC as amendment A2 to EN 60598-2-20:1997 on 2004-02-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2005-02-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2011-02-01

Annexes ZA and ZB have been added by CENELEC.

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Endorsement notice

The text of amendment 2:2002 to the International Standard IEC 60598-2-20:1996 was approved by CENELEC as an amendment to the European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

20.1 Scope

20.1.1 **Replace** "IEC 238:1991" by "IEC 60238:1998".

20.5 Marking

20.5.1 **Amend** item b), 2) to commence as follows:

2) for series-connected lamps other than those in sealed chains, replace ...

Item e), **replace** the note by:

NOTE For the purpose of this subclause, a fused lamp is a lamp designed so as to break the circuit in the event of an overload either by means of a separate fuse incorporated within the lamp or by any other means e.g. a special filament. Such fuses or special filaments are not considered integral components (see 0.5.1 of EN 60598-1).

20.6 Construction

20.6.1 **Replace** the text of this subclause by:

Edison screw lampholders E14 and E27 shall meet the requirements of EN 60238:1998.

Edison screw lampholders E5 and E10 and similar small lampholders of the push-in type shall meet the appropriate requirements of EN 60238:1998 as modified by Annex ZB.

Edison screw lampholders larger than E10 with non-metallic screw threads shall meet the requirements of 12.1 of EN 60238:1998.

NOTE E10 and small lampholders may have screw threads of insulating material.

In lighting chains fitted with parallel connected lamps, E27 and B22 lampholders with insulation piercing contacts shall meet the requirements of this section. In addition, E27 lampholders with insulation piercing contacts shall meet the requirements of 12.1 of EN 60238:1998.

Bayonet lampholders shall meet the requirements of IEC 61184.

In lighting chains where non-standardized lamps (e.g. lamps of the push-in type) are used, the lamps are regarded as parts of the lighting chain and tested accordingly.

20.6.6 **Replace** the text of this subclause by:

Compliance with the mechanical strength requirements of 4.13 of EN 60598-1 for E14 and E27 lampholders incorporated in lighting chains shall be checked by the tests given in Clause 15 of EN 60238:1998.

E5 and E10 and similar small lampholders of push-in type shall be checked by the tests given in Clause 15 of EN 60238:1998 as modified by Annex ZB.

The tests are made on three samples of the lampholder without lamps inserted. After the test, the relevant compliance requirements of 4.13 of EN 60598-1 shall be met.

20.7 Creepage distances and clearances

Replace the text of this subclause by:

The provisions of Section 11 of EN 60598-1 apply except that

- for Edison screw lampholders E10, E14 and E27, Clause 17 of EN 60238:1998/A1:1999 applies,
- for Edison screw lampholders E5 and similar small lampholders of push-in type, Clause 17 of EN 60238:1998 and EN 60238:1998/A1:1999, as modified by Annex ZB, applies.

20.10 External and internal wiring**20.10.1 Replace** the text of this subclause by:

Subclause 5.2.2 of EN 60598-1 does not apply. Internal and external cables of lighting chains, sealed chains and external cables of sealed chains shall not be lighter than the following:

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| - for ordinary lighting chains using series-connected lampholders | H03VH7-H |
| - for Class II ordinary lighting chains using parallel-connected lampholders | H03VV-F or H03VVH2-F |
| - for Class III lighting chains using parallel-connected lampholders and with a maximum rated wattage exceeding 50 W | H03VVH2-F |
| - for other lighting chains using series-connected lampholders | H03RN-F (see NOTE) (HD 22.8) |
| - for other lighting chains using parallel-connected lampholders | H05RNH2-F or H05RN-F (HD 22.4 and HD 22.8) |
| - for other lighting chains where the length of cable between the supply plug and the nearest lampholder exceeds 3 m for that part of the cable | H07RN-F |

NOTE H03RN-F is only suitable for use with the following lampholders: E5, E10, E14 and B15 or similar miniaturised (small) lampholders.

Internal and external cables of Class III lighting chains with a maximum rated wattage not exceeding 50 W and the internal conductors of sealed chains may have a cross-sectional area of less than 0,4 mm² provided that the current-carrying capacity and mechanical properties are adequate. For sealed chains class III chains, conductors without insulation are accepted, provided adequate precautions have been taken to ensure compliance with requirements of 5.3.1 of EN 60598-1.

Compliance is checked by inspection, measurement and by calculation.

The nominal cross-sectional area of the conductors for the cables listed above shall be not less than one of the following values:

- a) 0,5 mm² for lighting chains with E5 or E10 lampholders or similar small lampholders of push-in type;
- b) 0,75 mm² for lighting chains with E14, E27, B15 or B22 lampholders and fitted with series-connected lamps;
- c) 1,5 mm² for lighting chains with E14, E27, B15 or B22 lampholders and fitted with parallel connected lamps.

20.15 Resistance to heat, fire and tracking

Replace the text of this subclause by:

The provisions of Section 13 of EN 60598-1 apply except that

- for flexible pipes of sealed chains, the test of 13.2.1 is replaced by the test of Clause 8 of EN 60811-3-1,
- for lampholders, the tests of Clause 13 are replaced by the tests of
 - for E14 and E27 lampholders Clause 20 of EN 60238,
 - for E5 and E10 and similar lampholders Clause 20 of EN 60238 modified by Annex ZB.
of the push-in type

Figure 1 Delete and substitute “Not used”.

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Annexes **Add** the following new Annexes ZA and ZB:

Annex ZA (normative)

Normative references to international publications With their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE Where 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 60083 | 1975 | Plugs and socket-outlets for domestic and similar general use – Standards | | |
| IEC 60227 (mod) | Series | Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V | HD 21 | Series |
| IEC 60238 A1 | 1998 | Edison screw lampholders | EN 60238 | 1998 |
| IEC 60238 A2 | 1999 | | A1 | 1999 |
| | 2002 | | A2 | 2002 |
| IEC 60245 (mod) | Series | Rubber insulated cables of rated voltages up to and including 450/750 V | HD 22 | Series |
| IEC 60320 (mod) | 1981 | Appliance couplers for household and similar general purposes | EN 60320-1 ¹⁾ | 1987 |
| IEC 60598-1 (mod) | Sliding latest edition | Luminaires Part 1: General requirements and tests | EN 60598-1 | Sliding latest edition |
| IEC 60811-3-1 + corr. May | 1985 1986 | Insulating and sheathing materials of electric and optical cables – Common test methods Part 3-1: Methods specific to PVC compounds - Pressure test at high temperature – Tests for resistance to cracking | EN 60811-3-1 | 1995 |
| IEC 61184 | – ²⁾ | Bayonet lampholders | EN 61184 | 1997 ³⁾ |
| IEC 61347-1 | 2000 | Lamp controlgear Part 1: General and safety requirements | EN 61347-1 | 2001 |
| IEC 61347-2-11 | 2001 | Lamp controlgear Part 2-11 Particular requirements for miscellaneous electronic circuits used with luminaires | EN 61347-2-11 | 2001 |
| CISPR 14-1 A1 | 1993 1996 | Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus | EN 55014-1 ⁴⁾ | 1993 |
| + corr. January | 1997 | | A1 | 1997 |
| A2 | 1998 | Part 1: Emission - Product family standard | A2 | 1999 |

¹⁾ EN 60320-1 is superseded by EN 60320-1:2001, which is based on IEC 60320-1:2001.

²⁾ Undated reference.

³⁾ Valid edition at date of issue.

⁴⁾ EN 55014-1 and its amendments are superseded by EN 55014-1:2000, which is based on CISPR 14-1:2000.

Annex ZB
(normative)

**Requirements for Edison screw lampholders E5 and E10
and similar small lampholders of the push-in type**

This annex consists of modifications to EN 60238:1998 + A1:1999 + A2:2002 to cover Edison screw lampholders E5 and E10 and similar small lampholders of push-in type.

Subclause 1.1 **Add** at the end of the third paragraph:

It also applies to push-in lampholders, where applicable.

Subclause 9.1 In line 1 of the test specification **add** "E5 and" before "E10".

Subclause 15.9 **Replace** the second paragraph of the test by:

The backplate of lampholders shall be fixed by means of screws to a rigid flat steel sheet as follows:

- 3 mm screws for lampholders E10;
- 4 mm for lampholders other than E10.

This sheet shall have two drilled and tapped holes at a distance equal to the distance between the axes of the fixing holes of the backplate. The screws shall be gradually tightened, the maximum torque applied being

- 0,5 Nm for 3 mm screws, and
- 1,2 Nm for 4 mm screws.

These requirements do not apply to lampholders E5.