SLOVENSKI STANDARD
SIST EN 60357:1999/A11:1999

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Tungsten halogen lamps (non-vehicle) - Amendment A11 (IEC 60357:1982/A11:1997)

Tungsten halogen lamps (non-vehicle)

Halogen-Glühlampen (Fahrzeuglampen ausgenommen)

Lampes tungstène-halogène (véhicules exceptés)

Ta slovenski standard je istoveten z: **EN 60357:1988/A11:1997**

ICS:

29.140.20 Žarnice z žarilno nitko Incandescent lamps

SIST EN 60357:1999/A11:1999 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

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Descriptors: Lighting fitting, tungsten filament lamp, halogen lamp, electrical characteristic, dimension, maximum pinch temperature, condition of use

English version

Tungsten halogen lamps (non-vehicle)
(IEC 60357:1982/A11:1997)

Lampes tungstène-halogène
(véhicules exceptés)
(CEI 60357:1982/A11:1997)

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This amendment A11 modifies the European Standard EN 60357:1988; it was approved by CENELEC on 1997-07-01. 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, 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/703/FDIS, future amendment 11 to IEC 60357:1982, 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 as amendment A11 to EN 60357:1988 on 1997-07-01.

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) 1998-06-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1998-06-01

For products which have complied with EN 60357:1988 and its amendments A4:1991, A5:1993, A6:1994, A7:1994, A8:1995 and A9:1996 before 1998-06-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2003-06-01.

Endorsement notice

The text of amendment 11:1997 to the International Standard IEC 60357:1982 was approved by CENELEC as an amendment to the European Standard without any modification.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
60357

Deuxième édition
Second edition
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Modifiée selon les amendements:
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1(1984), 2(1985), 3(1987), 4(1989), 5(1992), 6(1993)
7(1994), 8(1995), 9(1995), 10(1996), et/and 11(1997)

Lampes tungstène-halogène (vehicules exceptés)

Tungsten halogen lamps (non-vehicle)

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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3 Guidance for the application of tungsten halogen lamps

The life of tungsten halogen lamps will be adversely affected by switching-on with, and/or operation at, supply voltages which are higher than the lamp rated voltage.

Lamps which are designed for use on higher supply voltages (voltage designations B and C will, in general, tolerate larger increases in supply voltage than those of low rated voltage (voltage designation A) particularly those lamps designed for very high luminous efficacy and/or high correlated colour temperature.

Luminous efficacy and correlated colour temperature are closely related to the attainable lamp life, therefore, rated lamp voltage and declared lamp life are good indicators of the degree of overvoltage which is tolerable to achieve acceptable lamp performance.

For this purpose the following guidelines should be observed.

Declared lamp life (h)	Maximum percentage of rated lamp voltage	
	Voltage designation A	Voltage designation B and C
< 25	100 %	110 %
25 to < 50	105 %	
50 to < 200	108 %	
≥ 200	110 %	

NOTES

1 If lamps are marked with a voltage range, the rated voltage shall be taken as the mean of the voltages marked.

2 Better control of voltage fluctuations can be obtained by use of a properly designed power supply. This is particularly applicable to lamps of voltage designation A.

Series operation of ELV lamps (voltage designation A) is not permitted unless the lamps are especially designed for such operation and approved for such use by the lamp manufacturer.

Special circuits which suitably limit the lamp voltage and/or current are also permitted.

4 Cautionary notices

4.1 *Cautionary notice for photographic and floodlight lamps*

It is recommended that cautionary notices should be supplied with tungsten halogen photographic and floodlight lamps. These notices should cover at least the following minimum requirements and should be based on the wording shown below:

"*Caution*: To ensure maximum safety, the following precautions should be observed:

a) The luminaire should be provided with a protective shield.

b) Disconnect the luminaire from the power supply before removing or installing a lamp or an equipment fuse.

c) When installing a lamp do not remove the protective cover – if provided – until the lamp has been inserted into the equipment.

If the quartz bulb has been touched by bare fingers it should be cleaned before use, using a clean, lint-free cloth moistened with methylated spirit.

d) Always operate the lamp in series with a fuse rated for a current of_____[2)] amperes. and complying with_____[2)].

e) Avoid improper use of the lamp, such as:

i) burning positions other than those recommended by the manufacturer;

ii) operation at over-voltage, or for a longer period than specified;

iii) operation in conjunction with improper fuses or equipment not specifically designed for that type and rating of the lamp.

f) Care should be taken when inserting double-ended tubular lamps that the pip of the exhaust tube does not touch any part of the luminaire."

NOTE 1 – If required by IEC 60598 or equivalent National Standard:

NOTE 2 – The manufacturer shall specify the rated value for this fuse and the relevant standard as given in table I, subclause 5.1 or table II, subclause 5.2.

Non-observance of these precautions may lead to damage to the lamp and equipment, and, in extreme cases, to bursting of the lamp.

Note to equipment manufacturers

Since specific conditions may have to be observed to ensure correct and safe operation of the lamp, equipment manufacturers should request the latest detailed information from the lamp manufacturers.

Symbols

For symbols covering specific aspects of the above-cautionary notice, see annex D.

4.2 *Cautionary notice for general purpose tungsten halogen lamps*

In subclause 4.21 of IEC 60598-1, guidance is given on lamps for which the luminaire has to be fitted with a protective shield.

In order to draw the user's attention to this fact, it is recommended that a cautionary notice should be supplied with such lamps, based on the following wording:

"The luminaire shall be provided with a protective shield."

For a corresponding symbol, see annex D.

5 Use of external fuses

5.1 *Photographic lamps*

The current ratings for the fuses that are recommended in the cautionary notices (item d) of clause 4 of the cautionary notices) should be in accordance with table I:

8 Standard sheets

The following standard sheets are to be found at the end of section one:

Title	Sheet number
Principle of dimensioning of tubular tungsten halogen lamps fitted with caps R7s and RX7s	357-IEC-1001-
Principle of dimensioning of tubular tungsten halogen lamps fitted with Fa4 caps	357-IEC-1002-
Centring principle for 50 mm integral mirror tungsten halogen lamps with base GZ6.35	357-IEC-1003-
Centring principle for 2 in integral mirror tungsten halogen lamps	357-IEC-1004-
External dimensions of tungsten halogen projection lamps having a 2 in integral reflector and a GX5.3 or GY5.3 base	357-IEC-1005-
Holding systems for 2 in integral mirror tungsten halogen lamps with GX5.3 or GY5.3 bases	357-IEC-1006-
Principle of dimensioning of single-ended tungsten halogen lamps with G6.35 or GY6.35 bases	357-IEC-1007-
Centring principle for 42 mm integral mirror tungsten halogen lamps with base GX5.3 or GY5.3	357-IEC-1008-
External dimensions of tungsten halogen projection lamps having a 42 mm integral reflector and a GX5.3 or GY5.3 base	357-IEC-1009-
External dimensions of tungsten halogen lamps having a 35 mm integral mirror and either a GZ4 or GU4 base	357-IEC-1010-
External dimensions of tungsten halogen general purpose lamps having a 35 mm integral mirror and front cover	357-IEC-1011-
External dimensions of tungsten halogen general purpose lamps having a 51 mm (2 in) integral mirror and front cover	357-IEC-1012-
External dimensions of tungsten halogen general purpose lamps having 51 mm (2 in) integral mirror and either a GX5.3 or GU5.3 base	357-IEC-1013-

9 Low-pressure tungsten halogen lamps

9.1 *Definitions*

9.1.1 **Mains voltage (voltage designation B and C) double-ended low-pressure lamp:** a tungsten halogen lamp with a working gas pressure below 10^5 Pa (1 bar).

9.1.2 **Extra-low voltage, ≤12 V, single-ended low-pressure lamp:** a tungsten halogen lamp with a working gas pressure below $2{,}5 \times 10^5$ Pa (2,5 bar).

NOTE - The higher working gas pressure compared with the version of 9.1.1 is permissible because of the much smaller volume and the fact that arcing at the end of life is not likely to occur.