

ICS 29.140.10

CCS K 74



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17935-2023

Replacing GB/T 17935-2007

Edison screw lampholders

螺口灯座

Issued on: September 7, 2023

Implemented on: April 1, 2024

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 General requirements	7
5 General requirements for tests	7
6 Standard rated values	8
7 Classification	9
8 Marking	9
9 Dimensions	11
10 Protection against electric shock	13
11 Terminals	14
12 Provisions for earthing	17
13 Construction	18
14 Switched lampholders	21
15 Moisture resistance, insulation resistance and electric strength	22
16 Mechanical strength	24
17 Screws, current-carrying parts and connections	27
18 Creepage distances and clearances	28
19 Normal operation	31
20 Resistance to heat in general	32
21 Resistance to heat, to fire and to tracking	34
22 Resistance to residual stress (resistance to season cracking) and resistance to corrosion	35
Annex A (normative) Season cracking and corrosion tests	55
Annex B (informative) Guidance on the requirements of IEC 61058-1 for lampholder switches (see 14.2)	56
Annex C (informative) Guidance on the particular requirements in household and similar electrical appliances	58
Annex D (informative) Clauses containing requirements that are new or more severe than those of the previous edition	60
Bibliography	61

1 Scope

The document applies to E14, E27 and E40 Edison screw lampholders used for the supply connection of lamps and of semi-luminaires. A footnote to the term semi-luminaire states that the technical requirements for semi-luminaire lampholders are still under study.

The document also applies to switched lampholders used in alternating current circuits whose working voltage does not exceed 250 V root mean square.

The document also applies to E5 screw lampholders used indoors in series connection at a working voltage not exceeding 25 V, to E10 screw lampholders used indoors and outdoors in series connection at a working voltage not exceeding 60 V, and to built-in E10 lampholders connected individually to the supply. None of these lampholders is for retail sale.

As far as reasonable adoption of the document goes, it also applies to non-Edison screw lampholders connected in series with the supply. A note gives, as an example, the use of this type of lampholder in Christmas tree chains.

As far as reasonable adoption of the document goes, it also applies to adaptors.

The document also applies to lampholders wholly or partly built into a luminaire and to lampholders specified for mounting inside equipment. It deals with the lampholder requirements only. For other requirements, such as those on terminals or on protection against electric shock at the lamp cap, when the equipment is tested in accordance with its own standard, lampholders of this kind are mounted in suitable equipment and are then examined and tested in accordance with the relevant requirements for that equipment. Lampholders of this kind, and lampholders fitted with a snap-on outer shell, for use by the luminaire manufacturer only, are not for retail sale.

The document applies to lampholders mounted in indoor and outdoor lighting installations, in residential lighting installations and on industrial lighting equipment, and it applies to candle lampholders as well. In certain places with special conditions of use, such as street lighting, ships' decks and motor vehicles, and in places liable to explosion, lampholders of special construction may be used. Information on the application of lampholders in household and similar electrical appliances is given in Annex C.

The document does not apply to three-source lampholders E26d.

The document was drawn up on the basis of the following parameters of the corresponding ordinary lighting lamps: the E14 lamp cap, for lamps with a current not exceeding 2 A; the E27 lamp cap, for lamps with a current not exceeding 4 A; and the E40 lamp cap, for lamps with a current not exceeding 16 A, or 32 A where the nominal voltage of the supply does not exceed 130 V, see 5.5 and 6.3.

For lampholders used in luminaires, the maximum operating temperature is given in IEC

60598.

2 Normative references

The clause opens with the statement that the content of the following documents forms indispensable provisions of the document through normative reference in the text, that for dated references only the edition corresponding to that date applies, and that for undated references the latest edition, including all amendments, applies.

The documents cited include GB/T 5169.11-2017 Fire hazard testing for electric and electronic products-Part 11: Glowing/hot-wire based test methods-Glow-wire flammability test method for end-products (GWEPT) (IEC 60695-2-11:2014, IDT); ISO 4046-4:2016 Paper, board, pulps and related terms-Vocabulary-Part 4: Paper and board grades and converted products, with a note stating that the content cited from ISO 4046-4:2016 carries no technical difference from the content cited from ISO 4046:2002; IEC 60061-1 Lamp caps and holders together with gauges for the control of interchangeability and safety-Part 1: Lamp caps, with a note naming GB/T 1406 (all parts) Lamp caps types and dimensions (IEC 60061-1); IEC 60061-2 Lamp caps and holders together with gauges for the control of interchangeability and safety-Part 2: Lampholders, with a note naming GB/T 19148 (all parts) Lampholders types and dimensions (IEC 60061-2); IEC 60061-3 Lamp caps and holders together with gauges for the control of interchangeability and safety-Part 3: Gauges, with a note naming GB/T 1483 (all parts) Gauges for lamp caps and lampholders (IEC 60061-3); IEC 60068-2-32:1975 Basic environmental testing procedures-Part 2: Tests-Test Ed: Free fall; IEC 60068-2-75:2014 Environmental testing-Part 2-75: Tests-Test Eh: Hammer tests, with a note naming GB/T 2423.55-2023 (IEC 60068-2-75:2014, IDT).

The clause goes on to cite IEC 60112:2003 Method for the determination of the proof and the comparative tracking indices of solid insulating materials, together with IEC 60112:2003/AMD1:2009 and a note naming GB/T 4207; IEC 60227 (all parts) Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V, with a note naming GB/T 5023 (all parts); IEC 60245 (all parts) Rubber insulated cables-Rated voltages up to and including 450/750 V, with a note naming GB/T 5013 (all parts); IEC 60352-1 Solderless connections-Part 1: Wrapped connections-General requirements, test methods and practical guidance; IEC 60399 Barrel thread for lampholders with shade holder ring, with a note naming GB/T 20144-2016; IEC 60529 Degrees of protection provided by enclosures (IP Code), with a note naming GB/T 4208-2017; IEC 60598-1 Luminaires-Part 1: General requirements and tests, with a note naming GB 7000.1-2015; IEC 60630 Maximum lamp outlines for incandescent lamps, with a note naming GB/T 7249-2016; IEC 60695-11-5 Fire hazard testing-Part 11-5: Test flames-Needle-flame test method-Apparatus, confirmatory test arrangement and guidance, with a note naming GB/T 5169.5-2020; and IEC 61058-1:2000 Switches for appliances-Part 1: General requirements, with a note naming GB/T 15092.1-2020 (IEC 61058-1:2016, MOD).

Several lines of this clause are crossed by the heavy watermark of the digitized copy; the entries listed above are those that could be read with certainty on the page, and the dates of a few of the cited Chinese notes are partly covered.

3 Terms and definitions

The clause opens with the statement that the following terms and definitions apply to the document.

3.1 cord-grip lampholder: a lampholder fitted with a device able to grip a flexible cord, by which the lampholder is suspended.

3.2 thread entry lampholder: a lampholder carrying a threaded component at the entry of the supply cable, so that it can be mounted on a bracket with a matching thread. A note records that a thread entry lampholder was formerly called a screwed conduit entry lampholder.

3.3 backplate lampholder: a lampholder mounted directly on a supporting surface or on a suitable enclosure by means of its assembled base or its one-piece base.

3.4 lampholder for building-in: a lampholder designed to be mounted in a luminaire, in an attached enclosure or in a similar device.

3.4.1 unenclosed lampholder: a lampholder for building-in that needs an additional device, for example an enclosure, to be fitted in order to meet the requirements of the document on protection against electric shock.

3.4.2 enclose lampholder: a lampholder for building-in that meets the requirements of the document on protection against electric shock and the corresponding requirements for classification by degree of protection of the enclosure. The English term is printed in the standard as enclose lampholder.

3.5 independent lampholder: a lampholder that can be mounted on its own outside a luminaire while providing all the protective measures needed to match its classification and marking.

3.6 terminal/contact assembly: a component or assembly of components by which the end of the supply cable is connected to the lamp cap contact. A note refers to Figure 17 for illustrations of certain definitions.

3.7 outer shell: the cylindrical component that prevents contact between the user and the lamp cap. Note 1 records that the outer surface of this component may or may not carry the external thread used to fit a shade holder ring. Note 2 refers to Figure 17 for illustrations of certain definitions.

3.7.1 snap-on outer shell: an outer shell without a thread, used on a body assembled without a thread. A note states that when the snap-on outer shell is removed the