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

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Replacing GB/T 1312-2007

Lampholders for tubular fluorescent lamps and starterholders

管形荧光灯灯座和启动器座

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Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 General requirements	6
5 General conditions for the tests	6
6 Ratings of electrical parameters	7
7 Classification	7
8 Marking	8
9 Protection against electric shock	10
10 Terminals	11
11 Construction	12
12 Protection against dust and moisture	16
13 Insulation resistance and dielectric strength	17
14 Endurance	17
15 Mechanical strength	18
16 Screws, current-carrying parts and connections	20
17 Creepage distances and clearances	21
18 Resistance to heat, to fire and to tracking	23
19 Protection against excessive residual stress (season cracking) and against rusting	27
Annex A (normative) Examples of lampholders covered by this document	74
Annex B (normative) Season cracking / corrosion test	76
Annex C (informative) Protection against electric shock - Detailed description of lampholders mounted according to 9.2	78
Annex D (informative) Clauses that are new or more severe than in the previous edition	79
Annex E (informative) Guidance on the working voltage U_{out}	80
Bibliography	82

1 Scope

The document lays down the technical and dimensional requirements for lampholders and starterholders used with tubular fluorescent lamps, together with the test methods by which the safety and the compatibility of a lamp in its lampholder and of a starter in its

starterholder are determined.

It applies to independent lampholders and built-in lampholders for tubular fluorescent lamps fitted with the caps shown in Annex A, and to independent starterholders and built-in starterholders for starters conforming to IEC 60155 working in alternating-current circuits at a working voltage whose root-mean-square value does not exceed 1 000 V.

It also applies to single-capped tubular fluorescent lampholders in which the housing and the domed cap form one piece, holders of the kind close to the Edison screw lampholder (G23 and G24 lampholders for example); these are examined further against the following clauses of IEC 60238: 9.4, 9.5, 9.6, 10.3, 11.7, 12, 13.2, 13.5, 13.6, 13.7, 14, 16.3, 16.4, 16.5 and 16.9.

It applies as well to lampholders integrated with a luminaire or intended to be built into an appliance, but only as regards the requirements on the lampholder. For all the other requirements, protection against electric shock in the terminal area for instance, conformity with the requirements of the relevant appliance standard is expected, and the holder is first mounted in a suitable device and tested at the same time as that device is examined against its own standard. A lampholder supplied for use by a luminaire manufacturer is not to be sold at retail.

Within reason, the document also applies to lampholders and starterholders of types other than those expressly mentioned above, and to lamp connectors.

The document uses the term holder to denote both the lampholder and the starterholder.

Where the term bi-pin lampholder is used, it applies to wedge-shaped caps as well.

2 Normative references

The content of the following documents becomes an indispensable clause of this document through normative reference in the text. Of a dated reference only the edition of that date applies; of an undated reference the latest edition applies, amendments included.

GB/T 4207-2012 Method for the determination of the proof and the comparative tracking indices of solid insulating materials (IEC 60112:2009, IDT); GB/T 4208-2017 Degrees of protection provided by enclosure (IP code) (IEC 60529:2013, IDT).

IEC 60061-1 Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1: Lamp caps; IEC 60061-2 the same series, Part 2: Lampholders; IEC 60061-3 the same series, Part 3: Gauges.

IEC 60068-2-75:2014 Environmental testing - Part 2-75: Tests - Test Eh: Hammer tests, with a note referring to GB/T 2423.55-2006 (IEC 60068-2-75:1997, IDT).

IEC 60081 Double-capped fluorescent lamps - Performance specifications; IEC 60155 Glow-starters for fluorescent lamps, with a note referring to GB/T 20550-2013 (IEC

60155:2006, IDT); 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 referring to GB/T 20144-2016 (IEC 60399:2008, IDT); IEC 60529 Degrees of protection provided by enclosures (IP Code), with a note referring to GB/T 4208-2017.

IEC 60598-1 Luminaires - Part 1: General requirements and tests, with a note referring to GB 7000.1-2015 (IEC 60598-1:2014, IDT); IEC 60695-2-11 Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end products (GWEPT), with a note referring to GB/T 5169.11-2017 (IEC 60695-2-11:2014, IDT); 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 referring to GB/T 5169.5-2020 (IEC 60695-11-5:2016, IDT); ISO 4046-4:2016 Paper, board, pulps and related terms - Vocabulary - Part 4: Paper and board grades and converted products.

3 Terms and definitions

The following terms and definitions apply to this document. For standardised use, ISO and IEC maintain terminology databases at the IEC Electropedia and the ISO Online Browsing Platform.

3.1 rated voltage - the highest working voltage declared by the manufacturer as applicable to the holder.

3.2 working voltage - the highest root-mean-square voltage that may appear across any insulant when the lamp or the starter is operating under normal conditions, and when the lamp or the starter is removed. Transients are disregarded.

3.3 flexible lampholders for linear double-capped fluorescent lamps - a pair of lampholders whose bases are firmly mounted in the luminaire but in which the contacts of one or both holders can move along their axis. The axial movement of the contacts compensates the variation in lamp length and lets the lamp be inserted and withdrawn. Note: where it has to be established whether the axial movement of the contacts of a G5, GX5 or G13 lampholder meets the requirement, the apparatus shown in Figure 3 may be used.

3.4 inflexible lampholders for linear double-capped fluorescent lamps - a pair of lampholders for rigid mounting, whose contacts cannot or need not provide axial movement either for the insertion and withdrawal of the lamp or to compensate the variation in lamp length.

3.5 flexibly mounted lampholders for linear double-capped fluorescent lamps - a pair of lampholders whose own contact system provides no axial movement, but which are intended to be mounted in the luminaire in a particular way so that the combination of holder and luminaire gives the contact system the necessary axial movement. Note: holders of this kind may or may not be suitable for rigid mounting.

3.6 lamp connectors - a contact device mounted on a flexible conductor which provides electrical contact only and cannot be used to support the light source.

3.7 holder for building-in - a holder designed to be mounted in a luminaire, an additional enclosure or a similar device.

3.7.1 unenclosed holder - a built-in holder that needs an auxiliary device (an enclosure for instance) to be fitted before the requirements of this document on protection against electric shock are met.

3.7.2 enclosed holder - a built-in holder that by itself meets the requirements of this document on protection against electric shock and on IP classification where that applies.

3.8 independent holder - a holder that can be mounted on its own outside a luminaire and at the same time provides all the protective measures matching its classification and marking.

3.9 rated operating temperature - the maximum design temperature of the holder.

3.10 rated lampholder rearside temperature - the temperature of the rear face of the lampholder, indicated by the T marking determined by the test described in 18.1 b), or a higher temperature declared by the manufacturer.

3.11 type test - a test or a series of tests carried out on a type test sample in order to check whether the design of a given product meets the requirements of the corresponding standard.

3.12 type test sample - one or more similar samples supplied by the manufacturer or the vendor for the purpose of a type test.

Note Relationship to IEC 60400:2017

The foreword states that the document is drafted under the rules of GB/T 1.1-2020 and replaces GB/T 1312-2007 Lampholders for tubular fluorescent lamps and starterholders. It adopts IEC 60400:2017 identically. The editorial changes it declares are: the amendment content of IEC 60400:2017/AMD1:2020 has been incorporated, the clauses affected being marked by a vertical double line in the outer margin; the list of normative references has been adjusted to the citations in the body; the wrong figure numbers cited in 11.2, Figure C.3 and Figure C.4, have been corrected to Figure C.1c) and Figure C.1d); and an explanation of the symbol A has been added to Figure 1.

The main technical changes against the 2007 edition are listed as: a terminology clause has been added (Clause 3); a limit on the rated power of G5 lampholders has been added for countries that use rated power instead of rated current (Clause 6); a classification for protection against electric shock has been added (7.1); the content to be marked has been changed (8.1, against 7.1 of the 2007 edition); the information to be given in the