IEC 60400

Edition 8.2 2022-02
CONSOLIDATED VERSION

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Lampholders for tubular fluorescent lamps and starterholders

Douilles pour lampes tubulaires à fluorescence et douilles pour starters

IEC 60400:2017-06+AMD1:2020-02+AMD2:2022-02 CSV(en-fr)

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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LAMPHOLDERS FOR TUBULAR FLUORESCENT LAMPS AND STARTERHOLDERS

FOREWORD

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IEC 60400 edition 8.2 contains the eight edition (2017-06) [documents 34B/1900/FDIS and 34B/1911/RVD] and its amendment 1 (2020-02) [documents 34B/2072/FDIS and 34B/2075/RVD] and its amendment 2 (2022-02) [documents 34B/2110/CDV and 34B/2121/RVC].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 60400 has been prepared by subcommittee 34B: Lamp caps and holders, of IEC technical committee 34: Lamps and related equipment.

This eighth edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) alignment with ISO/IEC drafting rules;

b) renumbering of clauses, tables and figures.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

In this standard, the following print types are used:

– requirements proper: in roman type;

– *test specifications: in italic type;*

– notes: in smaller roman type.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION to Amendment 1

Two changes needed for IEC 60400 became obvious during the work relating to Edition 8.0 of IEC 60400.

Change 1:

Actual lamp holder safety standards require a ball pressure test in line with IEC 60695-10-2 in sections “Resistance to heat, fire and tracking”. Within this test there is an alternative depth indentation method described for the calculation of the indentation diameter.

This alternative calculation option was removed from the latest edition of IEC 60695-10-2 dated 2014 and during its meeting held in Sydney in 2018, SC 34B/WG1 agreed to delete the alternative method as well from IEC 60400.

Change 2:

Based on IEC 60664-1:2007, 4.8.1.5 "Non tracking materials":

"For glass, ceramics or other inorganic insulating materials which do not track, creepage distances need not be greater than their associated clearance for the purpose of insulation coordination. The dimensions of Table F.2 for inhomogeneous field conditions are appropriate."

This is not completely reflected in TC 34 standards as revised recently. For applications with ELV it is of high importance whether the creepage distance shall be 0,6 mm or may be 0,2 mm in case where inorganic insulating material is used.

An informative annex for the explanation of U_{out} should give some additional information.

INTRODUCTION to Amendment 2

Lampholders specified in this standard are used not only for fluorescent lamps but also now for retrofit LED lamps. LED lamp designers, as well as lampholder designers, refer to this standard. However, it may lead to a misread of the original intention of the relaxation in Clause 17, which indicates that creepage distances or clearances between lamp contacts can be reduced.

The purpose of this amendment is to make the relaxation provision clear and to avoid misreading, i.e.

- the relaxation provision has been moved from the end of Clause 17 to the footnotes in Table 3,

and

- an explanatory note for this relaxation has been added to Table 3.

LAMPHOLDERS FOR TUBULAR FLUORESCENT LAMPS AND STARTERHOLDERS

1 Scope

This document states the technical and dimensional requirements for lampholders for tubular fluorescent lamps and for starterholders, and the methods of test to be used in determining the safety and the fit of the lamps in the lampholders and the starters in the starterholders.

This document covers independent lampholders and lampholders for building-in, used with tubular fluorescent lamps provided with caps as listed in Annex A, and independent starterholders and starterholders for building-in, used with starters in accordance with IEC 60155, intended for use in AC circuits where the working voltage does not exceed 1 000 V r.m.s.

This document also covers lampholders for single-capped tubular fluorescent lamps integrated in an outer shell and dome similar to Edison screw lampholders (e.g. for G23 and G24 capped lamps). Such lampholders are tested in accordance with the following clauses and subclauses 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.

This document also covers lampholders which are integral with a luminaire or intended to be built into appliances. It covers the requirements for the lampholder only. For all other requirements, such as protection against electric shock in the area of the terminals, the requirements of the relevant appliance standard are applicable and tested after building into the appropriate equipment, when that equipment is tested according to its own standard. Lampholders for use by luminaire manufacturers only are not for retail sale.

This document also applies, as far as is reasonable, to lampholders and starterholders other than the types explicitly mentioned above and to lamp connectors.

Where the term "holder" is used in this document, both lampholders and starterholders are intended.

Where the term “bi-pin lampholder” is used, lampholders for wedged caps are also intended.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC 60061-2, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 2: Lampholders*

IEC 60061-3, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 3: Gauges*

IEC 60068-2-75:2014, *Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests*

IEC 60081, *Double-capped fluorescent lamps – Performance specifications*