

# CONSOLIDATED VERSION

# VERSION CONSOLIDÉE



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**Auxiliaries for lamps – Capacitors for use in tubular fluorescent and other discharge lamp circuits – General and safety requirements**

**Appareils auxiliaires pour lampes – Condensateurs destinés à être utilisés dans les circuits de lampes tubulaires à fluorescence et autres lampes à décharge – Prescriptions générales et de sécurité**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**AUXILIARIES FOR LAMPS –  
CAPACITORS FOR USE IN TUBULAR FLUORESCENT AND  
OTHER DISCHARGE LAMP CIRCUITS –  
GENERAL AND SAFETY REQUIREMENTS**

FOREWORD

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**This Consolidated version of IEC 61048 bears the edition number 2.1. It consists of the second edition (2006-03) [documents 34C/720/FDIS and 34C/736/RVD] and its amendment 1 (2015-07) [documents 34C/1155/FDIS and 34C/1160/RVD]. The technical content is identical to the base edition and its amendment.**

**In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions and deletions are displayed in red, with deletions being struck through. A separate Final version with all changes accepted is available in this publication.**

This International Standard has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

This publication 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 amendment 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

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## INTRODUCTION

This International Standard covers general and safety requirements for certain capacitors for use in tubular fluorescent and other discharge lamp circuits.

Performance requirements for these capacitors are the subject of IEC 61049.

NOTE Safety requirements ensure that electrical equipment constructed in accordance with these requirements, does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was intended.

## **AUXILIARIES FOR LAMPS – CAPACITORS FOR USE IN TUBULAR FLUORESCENT AND OTHER DISCHARGE LAMP CIRCUITS – GENERAL AND SAFETY REQUIREMENTS**

### **1 Scope**

This International Standard states the requirements for both self-healing and non-self-healing continuously rated a.c. capacitors of up to and including 2,5 kVAr, and not less than 0,1  $\mu\text{F}$ , having a rated voltage not exceeding 1 000 V, which are intended for use in discharge lamp circuits operating at 50 Hz or 60 Hz and at altitudes up to 3 000 m.

NOTE These lamps and associated ballasts are covered by IEC 60081, IEC 60901, IEC 60188, IEC 60192, IEC 60662, and IEC 61167 and by IEC 61347-2-8 and IEC 61347-2-9, respectively.

It covers capacitors intended for connection in shunt or in series with the lamp circuit or an effective combination of these.

It covers only impregnated or unimpregnated capacitors, having a dielectric of paper, plastic film or a combination of both, either metallized or with metal foil electrodes.

This standard does not cover radio-interference suppressor capacitors the requirements for which are found in IEC 60384-14.

Tests given in this standard are type tests. Requirements for testing individual capacitors during production are not included.

Particular requirements for built-in capacitors having an insulation equivalent to double or reinforced insulation are given in Annex E.

### **2 Normative references**

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.

IEC 60269 (all parts), *Low-voltage fuses*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 60598-1, *Luminaires – Part 1: General requirements and tests*

IEC 60695-2-11, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products*

IEC 60695-11-5, *Fire hazard testing – Part 11-5: Test flames – Needle flame method – Apparatus, confirmatory test arrangement and guidance*

IEC 61049:1991, *Capacitors for use in tubular fluorescent and other discharge lamp circuits – Performance requirements*

ISO 4046-4:2002, *Paper, board, pulps and related terms – Vocabulary – Paper and board grades and converted products*