
**Capacitors for use in tubular fluorescent and other discharge lamp circuits -
Performance requirements**

Capacitors for use in tubular fluorescent and other discharge lamp circuits - Performance requirements

Kondensatoren für Entladungslampen-Anlagen, insbesondere Leuchtstofflampen-Anlagen - Leistungsanforderungen

Condensateurs destinés à être utilisés dans les circuits de lampes tubulaires à fluorescence et autres lampes à décharge - Prescriptions de performance

<https://standards.iteh.ai/catalog/standards/sist/6db5806a-53c1-45f0-983c-70e421d7c83a/sist-en-61049-2001>

Ta slovenski standard je istoveten z: EN 61049:1993

ICS:

29.140.30	Fluorescent lamps. Discharge lamps
31.060.01	Kondenzatorji na splošno Capacitors in general

SIST EN 61049:2001
en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61049:2001

<https://standards.iteh.ai/catalog/standards/sist/6db5806a-53c1-45f0-983c-70e421d7c83a/sist-en-61049-2001>

EUROPEAN STANDARD

EN 61049

NORME EUROPEENNE

EUROPÄISCHE NORM

May 1993

UDC 621.327.534.15.032

Descriptors: Discharge lamp, tubular lamp, fluorescent lamp, capacitor,
characteristic, electrical capacitance, test, specification

ENGLISH VERSION

Capacitors for use in tubular fluorescent and
other discharge lamp circuits
Performance requirements
(IEC 1049:1991 + corrigendum 1992, modified)

Condensateurs destinés à être
utilisés dans les circuits de
lampes tubulaires à fluorescence
et autres lampes à décharge
Prescriptions de performances
(CEI 1049:1991 + corrigendum 1992,
modifiée)

Kondensatoren für
Entladungslampen-, insbesondere
Leuchtstofflampen-Anlagen
Leistungsanforderungen
(IEC 1049:1991 + Corrigendum 1992,
modifiziert)

iTeh STANDARD PREVIEW
(standards.itech.ai)

This European Standard was approved by CENELEC on 1992-12-09.
CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations
which stipulate the conditions for giving this European Standard 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 European Standard 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

At the request of CENELEC Technical Committee TC 34Z, Luminaires and associated equipment, the text of the International Standard IEC 1049:1991 and its corrigendum January 1992 together with the common modifications prepared by TC 34Z, was submitted to the CENELEC members for formal vote in July 1992 for acceptance as a European Standard.

The text of the draft was approved by CENELEC as EN 61049 on 9 December 1992.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1993-12-01
- latest date of withdrawal of conflicting national standards (dow) 1993-12-01

For products which have complied with the relevant national standard before 1993-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1998-12-01.

SIST EN 61049:2001

<https://standards.iteh.ai/catalog/standards/sist/6db5806a-53c1-45f0-983c-c342a7788a5c/en-61049-1993>

Annexes designated "normative" are part of the body of the standard. In this standard, annexes A, B and ZA are normative.

ENDORSEMENT NOTICE

The text of the International Standard IEC 1049:1991 and its corrigendum January 1992 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

ClauseModification

4

Testing sequence

In the paragraph commencing "The second group..."
replace "clause 8" by "clause 16".

In the paragraph commencing "The third group..."
replace "clause 9" by "clause 8".

8

Endurance test

8.3

Replace table 1 by:

Voltage $X U_n$	1,15	1,25	1,30-450	1,35
Time h	8 500	4 000	2 900	2 000

Delete the paragraph after table 1 and the example.
(The note is not deleted)

Delete the paragraph after the note.

8.7

Delete subclause 8.7.

Annex A

Delete the second sentence of the last paragraph.

ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD
WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

When the international publication has been modified by CENELEC common modifications, indicated by (mod), the relevant EN/HD applies.

IEC <u>Publication</u>	<u>Date</u>	<u>Title</u>	<u>EN/HD</u>	<u>Date</u>
68-2-14	1984	Environmental testing - Part 2: Tests -	HD 323.2.14 S2	1987
A1	1986	Test N: Change of temperature		
384-14	1981	Fixed capacitors for use in electronic equipment - Part 14: Sectional specification: Fixed capacitors for radio interference suppression Selection of methods of test and general requirements	-	-
410	1973	Sampling plans and procedures for inspection by attributes	-	-
1048 (mod)	1990	Capacitors for use in tubular fluorescent and other discharge lamp circuits - General and safety requirements	EN 61048	1993

**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC
1049**

Première édition
First edition
1991-02

**Condensateurs destinés à être utilisés dans les
circuits de lampes tubulaires à fluorescence et
autres lampes à décharge**

**Prescriptions de performances
(standards.iteh.ai)**

**Capacitors for use in tubular fluorescent and
other discharge lamp circuits**

<https://standards.iteh.ai/catalog/standards/sist/6db5806a-53c1-4510-983c-70e421d7c83a/sist-en-61049-2001>

Performance requirements

© CEI 1991 Droits de reproduction réservés — Copyright — all rights reserved

Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'éditeur.

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Bureau Central de la Commission Electrotechnique Internationale 3, rue de Varembe Genève, Suisse



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

**CODE PRIX
PRICE CODE**

M

*Pour prix, voir catalogue en vigueur
For price, see current catalogue*

CONTENTS

	Page
FOREWORD	5
Clause	
1 General	7
1.1 Scope	7
1.2 Normative references	9
2 Definitions	9
3 General notes on tests	9
4 Testing sequence	11
5 Marking	13
6 Capacitance	13
7 Change of capacitance with temperature	13
8 Endurance test	17
Annexes	
A Conformity of production	23
B Test voltage	25

iTeh STANDARD PREVIEW
(standards.iteh.ai)
<https://standards.iteh.ai/catalog/standards/sist/6db5806a-53c1-45f0-983c-70e421d7c83a/sist-en-61049-2001>

INTERNATIONAL ELECTROTECHNICAL COMMISSION

CAPACITORS FOR USE IN TUBULAR FLUORESCENT AND
OTHER DISCHARGE LAMP CIRCUITS

Performance requirements

FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.
- 4) The IEC has not laid down any procedure concerning marking as an indication of approval and has no responsibility when an item of equipment is declared to comply with one of its recommendations.

SIST EN 61049:2001

[https://standards.iteh.ai/catalog/standards/sist/6db5806a-53c1-45f0-983c-](https://standards.iteh.ai/catalog/standards/sist/6db5806a-53c1-45f0-983c-70e421d7c83a/sist-en-61049-2001)

This International Standard has been prepared by Sub-Committee 34C: Auxiliaries for discharge lamps, of IEC Technical Committee No. 34: Lamps and related equipment.

It constitutes the first edition of IEC 1049.

The text of this standard is based on the following documents:

Six Months' Rule	Report on Voting
34C(C0)174	34C(C0)193

Full information on the voting for the approval of this standard can be found in the Voting Report indicated in the above table.

In this standard, the following print types are used:

- requirements proper: in roman type;
- *test specifications: in italic type;*
- notes: in smaller roman type.

Annexes A and B form an integral part of IEC 1049.

CAPACITORS FOR USE IN TUBULAR FLUORESCENT AND OTHER DISCHARGE LAMP CIRCUITS

Performance requirements

1 General

1.1 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 μ 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.

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 384-14.

Tests in this standard are type tests. Guidance on conformity of production is given in annex A.

* These lamps and associated ballasts are covered in the specifications of the following IEC publications:

81: 1984, *Tubular fluorescent lamps for general lighting service. Amendment No. 1 (1987). Amendment No. 2 (1988).*

188: 1974, *High-pressure mercury vapour lamps. Amendment No. 1 (1976). Amendment No. 2 (1979). Amendment No. 3 (1984). Amendment No. 4 (1988).*

192: 1973, *Low-pressure sodium vapour lamps. Amendment No. 2 (1988).*

921: 1988, *Ballasts for tubular fluorescent lamps. Performance requirements.*

923: 1988, *Ballasts for discharge lamps (excluding tubular fluorescent lamps). Performance requirements.*

1.2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC standards:

IEC 68-2-14: 1984, *Environmental testing - Part 2: Tests. Test N: Change of temperature. Amendment No. 1* (1986).

IEC 384-14: 1981, *Fixed capacitors for use in electronic equipment - Part 14: Sectional specification: Fixed capacitors for radio interference suppression. Selection of methods of test and general requirements.*

IEC 410: 1973, *Sampling plans and procedures for inspection by attributes.*

IEC 1048: 1990, *Capacitors for use in tubular fluorescent and other discharge lamp circuits. General and safety requirements.*

ITEH STANDARD PREVIEW
(standards.iteh.ai)

2 Definitions

SIST EN 61049:2001

For the purposes of this International Standard, the definitions of IEC 1048 shall apply.

<https://standards.iteh.ai/catalog/standards/sist/61049-2001-53e1-450-983e-70e421d7c83a/sist-en-61049-2001>

3 General notes on tests

All capacitors specified in this standard shall comply with the requirements of IEC 1048.

Tests according to this standard are type tests.

NOTE - The requirements and tolerances permitted by this standard are related to testing of a type test sample submitted for that purpose. In principle, this type test sample should consist of units having characteristics typical of the manufacturer's production and be as close to the production centre points as possible.

It may be expected with the tolerances given in the standard that products manufactured in accordance with the type test sample will comply with the standard for the majority of the production. Due to the production spread, it is inevitable, however, that there may be products outside the specified tolerances. For guidance on sampling plans and procedures for inspection by attributes, see IEC 410.