

**Signs and luminous-discharge-tube installations
operating from a no-load rated output voltage exceeding
1 kV but not exceeding 10 kV**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 50107:2002 sisaldab Euroopa standardi EN 50107:1998 ingliskeelset teksti.	This Estonian standard EVS-EN 50107:2002 consists of the English text of the European standard EN 50107:1998.
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English version

Signs and luminous-discharge-tube installations operating from a no-load rated output voltage exceeding 1 kV but not exceeding 10 kV

Installations d'enseignes et de tubes lumineux à décharge fonctionnant à une tension de sortie à vide assignée supérieure à 1 kV mais ne dépassant pas 10 kV

Leuchtröhrengeräte und Leuchtröhrenanlagen mit einer Leerspannung über 1 kV aber nicht über 10 kV

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CENELEC

European Committee for Electrotechnical Standardization
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Foreword

This European Standard was prepared by CENELEC
BTTF 60-2, Electrical discharge lamp installations.

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The following dates were fixed:

- latest date by which the EN has to be
implemented at national level by
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- latest date by which the national
standards conflicting with the EN
have to be withdrawn (dow) 1998-09-01

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1 Scope

This European Standard specifies the requirements and method of installation for signs and luminous-discharge-tube installations operating from a no-load rated output voltage exceeding 1000 V but not exceeding 10 000 V, including the electrical components and wiring.

The standard covers installations used for publicity, decorative or general lighting purposes, either for external or internal use. Such signs or luminous-discharge-tube installations may be either fixed or portable supplied from a low-voltage (L.V) or extra-low-voltage (E.L.V) source by means of a transformer, inverter or convertor.

NOTE: Although the requirements are not specified in this Standard, attention is drawn to the need for an effective maintenance programme to be carried out on all signs or luminous-discharge-tube installations. The inspection and testing requirements included in any maintenance programme should closely follow those specified in Clause 18 of this Standard.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to the European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 50143 *Cables for signs and luminous-discharge-tube installations operating from a no-load rated output voltage exceeding 1 000 V but not exceeding 10 000 V.*

EN 55015 *Limits and methods of measurement of radio interference characteristics of fluorescent lamps and luminaires.*

EN 60529 *Degrees of protection provided by enclosures (IP Code).*

EN 61000-3-2 *Electromagnetic compatibility (EMC). Part 3, Limits. Section 2, Limits for harmonic current emissions (equipment input current not exceeding 16 A/phase).*

EN 60598-1 *Luminaires. Part 1, General requirements and tests.*

EN 61050 *Transformers for tubular discharge lamps having, a no-load output voltage exceeding 1 000 V (generally called neon-transformers). General and safety requirements.*

EN 61547 *Equipment for general lighting purposes. EMC immunity requirements.*

HD 384 *Electrical installations of buildings.*

ISO 3864 *Safety colours and safety signs*

3 Definitions

For the purposes of this European Standard, the definitions given in IEC 50 (IEV) apply, together with the following.

NOTE: Where the terms 'voltage' and 'current' are used, they imply the r.m.s. values unless otherwise specified.

3.1 luminous-discharge tube: Any tube, or other vessel or device, which is constructed of translucent material, hermetically sealed, and designed for the emission of light arising from the passage of an electric current through a gas or vapour contained within it.

NOTE: The tube may be with or without a fluorescent coating.

3.2 no-load rated output voltage: Maximum rated voltage between the terminals of the output winding(s) of the transformer connected to the rated supply voltage at rated frequency, with no load on the output circuit. It is the peak value divided by the square root of 2.

3.3 creepage distance: The shortest path between two conductive parts or between a conductive part and the bounding surface of the installation, measured along the surface of the insulating material.

NOTE: The bounding surface of the installation is the inner surface of the enclosure, considered as though a metal foil were pressed into contact with all interior surfaces of insulating material.

3.4 clearance: The shortest distance between two conductive parts or between a conductive part and the bounding surface of the installation, measured through the air.

NOTE: See note to 3.3.

3.5 transformer: A unit for the conversion of an a.c. supply at one voltage and frequency to an a.c. supply at a different voltage and the same frequency.

NOTE: The high output impedance of most transformers designed for cold-cathode discharge tubes allows the characteristics of transformer and current-limiting components to be combined in one unit.