

Edition 3.1 2011-07

# INTERNATIONAL STANDARD



**Bayonet lampholders** 

Douilles à baïonnette





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# MTERNATIONAL STANDARD





**Bayonet lampholders** 

Douilles à baïonnette

INTERNATIONAL **ELECTROTECHNICAL COMMISSION** 

COMMISSION **ELECTROTECHNIQUE** INTERNATIONALE

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# INTERNATIONAL ELECTROTECHNICAL COMMISSION

# **BAYONET LAMPHOLDERS**

#### **FOREWORD**

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Ofganization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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This consolidated version of IEC 611843 consists of the third edition (2008) [documents 34B/1385/FDIS and 34B/1401/RVD, its amendment 1 (2011) [documents 34B/1587/FDIS and 34B/1599/RVD] and its corrigendum of February 2009. It bears the edition number 3.1.

The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience. A vertical line in the margin shows where the base publication has been modified by amendment 1. Additions and deletions are displayed in red, with deletions being struck through.

International Standard IEC 61184 has been prepared by subcommittee 34B: Lamp caps and holders, of IEC technical committee 34: Lamps and related equipment.

In this edition, information to lampholders intended to be used in applications where they are accessible in normal use (class II as well as class I luminaires) are introduced. Additionally, in Table 11, lamp data where lamps no longer exist has been removed and requirements for shade holder rings have been amended to include shade rings according to IEC 60399 into testing.

In this standard, the following print types are used:

- requirements proper: in roman type;
- test specifications: in italic type;
- notes: in small 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

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- · amended.

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# INTRODUCTION

This standard covers safety requirements for bayonet lampholders and includes references to IEC 60061 for the control of interchangeability and safety of the cap and holder fit.

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.

The thermal characteristics of lampholders are specified by the rated operating temperature (symbol T), which is the highest temperature for which the lampholder is designed. The temperature rating and the resistance to heat specified in this standard are based on two different principles, as presently found in IEC 60238 for Edison screw lampholders and in other national standards for bayonet lampholders. After experience, it may be possible to rationalize the systems in future editions of this standard.

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# **BAYONET LAMPHOLDERS**

# 1 Genera

# 1.1 Scope

This International Standard applies to bayonet lampholders B15d and B22d for connection of lamps and semi-luminaires to a supply voltage of 250 V.

This standard 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 shall be observed 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.

NOTE Where lampholders are used in luminaires, their maximum operating temperatures are specified in IEC 60598-1.

B15d denotes the cap/holder fit as defined by IEC 60061-1, sheet 7004-11 and IEC 60061-2, sheet 7005-16 with the corresponding gauges.

B22d denotes the cap/holder fit as defined by IEC 60061-1, sheet 7004-10 and IEC 60061-2, sheet 7005-10 with the corresponding gauges.

#### 1.2 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 60061 (all parts), Lamp caps and holders together with gauges for the control of interchangeability and safety

IEC 60061-1, Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 1: Lamp caps

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 60064, Tungsten filament lamps for domestic and similar general lighting purposes – Performance requirements

IEC 60068-2-75:1997, Environmental testing - Part 2-75: Tests - Test Eh: Hammer tests

IEC 60112:2003, Method for the determination of the proof and the comparative tracking indices of solid insulating materials

IEC 60227 (all parts), Polyvinyl chloride insulated cables of rated voltages up to and including  $450/750\ V$ 

IEC 60245 (all parts), Rubber insulated cables – Rated voltages up to and including 450/750 V

IEC 60399, Barrel thread for lampholders with shade holder ring

IEC 60417, Graphical symbols for use on equipment

IEC 60432 (all parts), Incandescent lamps – Safety specifications

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

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

IEC 60664-1:2007, Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests

IEC 60695-2-11:2000, Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products

IEC 60695-11-5:2004, Fire hazard testing – Part 11-5: Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance

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

#### 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

NOTE For clarification of some definitions, see also Figure 4

#### 2.1 Materials

#### 2.1.1

#### plastic lampholder

lampholder, the exterior of which is made wholly of plastic material

NOTE The exterior is any part of the lampholder which, when wired and fully assembled and fitted with the testing device shown in Figure 7, can be touched directly by the standard test finger of IEC 60529.

#### 2.1.2

#### ceramic lampholder

lampholder, the exterior of which is made wholly of ceramic material (see note to 2.1.1)

# 2.1.3

#### metal lampholder

lampholder, the exterior of which is made wholly or partly of metal (see note to 2.1.1)

# 2.2 Means of fixing

#### 2.2.1

#### cord grip lampholder

lampholder incorporating a method of retaining a flexible cord by which it may be suspended (see Figure 4a)