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**Small incandescent lamps for household
use**

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Electric Lamp Manufacturers Association (JELMA) /Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS C 7523:2000** is replaced with this Standard.

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Small incandescent lamps for household use

Introduction

This Japanese Industrial Standard has been prepared by reference to the third edition of IEC 60064 published in 1993.

This Standard was established in 1955 and has gone through one revision in 2000 to this day. The revision at this time is made for the purpose of reflecting the revision for one of normative references, JIS C 7551-1, which was made after the last revision of this Standard.

Further, the corresponding International Standard has not yet been published at this moment.

1 Scope

This Standard specifies small incandescent lamps for household use (hereafter referred to as “lamps”) that conform to the requirements in JIS C 7551-1 and meet the following conditions. However, this Standard is not applicable to self-ballasted LED-lamps.

- rated wattage : 5 W and 7 W
- rated voltage : 100 V
- shape of glass bulb : Type C, Type G and Type T
- treatment of glass bulb : colourless clear and white finish
- cap : E12/15 and E26/25

In addition, the shape and designation of a glass bulb are in accordance with JIS C 7710, and the type and dimensions of a cap are in accordance with JIS C 7709-1. The type of each lamp is in accordance with clause 4.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 7507 *Vernier, dial and digital callipers*

JIS C 7551-1 *Incandescent lamps — Safety specifications — Part 1 : Tungsten filament lamps for domestic and similar general lighting purposes*

JIS C 7709-1 *Lamp caps and holders together with gauges for the control of interchangeability and safety Part 1 : Lamp caps*

JIS C 7709-3 *Lamp caps and holders together with gauges for the control of interchangeability and safety — Part 3 : Gauges*

JIS C 7710 *Designation method for glass bulbs of lamps*

JIS Z 8113 *Lighting vocabulary*

3 Terms and definitions

For the purposes of this Standard, the terms and definitions given in **JIS Z 8113** and the following apply.

3.1 type

lamp that has the same optical and electrical characteristics

3.2 white finish

glass bulb finishing that can get diffused light with small loss of luminous flux

3.3 initial readings

optical and electrical characteristics after the end of aging

3.4 rated voltage

voltage or voltage range that is specified in related standards or specified by the manufacturer or the responsible vendor

3.5 rated wattage

wattage that is specified in related standards or specified by the manufacturer or the responsible vendor

3.6 initial luminous flux

total luminous flux of a lamp after aging when the lamp is operated at the rated voltage

3.7 rated initial luminous flux

initial luminous flux of a lamp based on which the service of the lamp is specified

3.8 life

total operating time until it is considered that it becomes impossible to use a lamp or it becomes impossible to use a lamp in accordance with this Standard

3.9 rated life

hours announced officially based on the mean value of lives of the same type of lamps which have manufactured for an extended period of time

3.10 maximum lamp outline

dimensions determined by taking the dimension obtained by adding the deviation between the glass bulb axis and the cap axis to the maximum dimension of the glass bulb diameter, the inclination angle between the glass bulb axis and the cap axis, and the maximum whole length of the lamp into consideration

In order to guarantee the mounting of a lamp, it refers to the space that is required to be secured within a luminaire.

3.11 self-ballasted LED-lamp

lamp with a type E, type B or GX53 cap, which is a combination of a single LED or LED module and an additional device necessary for the stable operation of lighting it in one, and cannot be permanently disassembled without functional loss

4 Classification

The type designation shall be according to the following. The type designation is indicated by symbols of term 1 to term 6.

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Symbol denoting small incandescent lamps for household use	Value and symbol denoting rated voltage	Value and symbol denoting rated wattage	Symbol denoting shape of glass bulb	Symbol denoting inside treatment of glass bulb	Symbol denoting cap
NL	100 V	5 W 7 W	C : Type C G : Type G T : Type T	W : White finish No marking : colourless clear	E26 : Lamp with E26/25 cap E12 : Lamp with E12/15 cap

NOTE : At the end of type designation symbol denoting further classification or numerals may be added.

The product designation is based on the name and type. The example is shown as follows.

Example : Rated voltage 100 V, rated wattage 5 W, type C small incandescent lamp for household use : NL100V5WCE12

5 Marking, dimensions, electric performance, optical performance and life

5.1 General

5.1.1 The lamp shall meet the requirements of the related safety standard, **JIS C 7551-1**. However, **4.5.2** of **JIS C 7551-1** does not apply.

5.1.2 The lamp shall be designed so that reliable performances can be obtained according to the normal instructions for use. This is realized by meeting the requirements of this Standard.

5.1.3 The test conditions and test methods shall be in accordance with Annex A.

5.2 Marking

5.2.1 Marking of product

The lamp shall be marked as specified in **JIS C 7551-1**. The type shall be marked on the product or the minimum packaging container so as to be seen from the outside of the packaging container.

5.2.2 Marking of package

The following matters shall be marked on the packaging container.

- a) Type
- b) Name, trademark or abbreviation of the manufacturer or responsible vendor

5.3 Dimensions

The dimensions shall be indicated by the length and glass bulb diameter specified in figure 1 and figure 2 according to the shape of a cap and glass bulb. The dimensions for each type shall be in accordance with “dimensions” in data sheet.¹⁾

Note ¹⁾ The numerical values given in “type of glass bulb” specified in data sheet indicate the nominal values of a glass bulb diameter, and these values are not used for the inspection of dimensions of lamps.

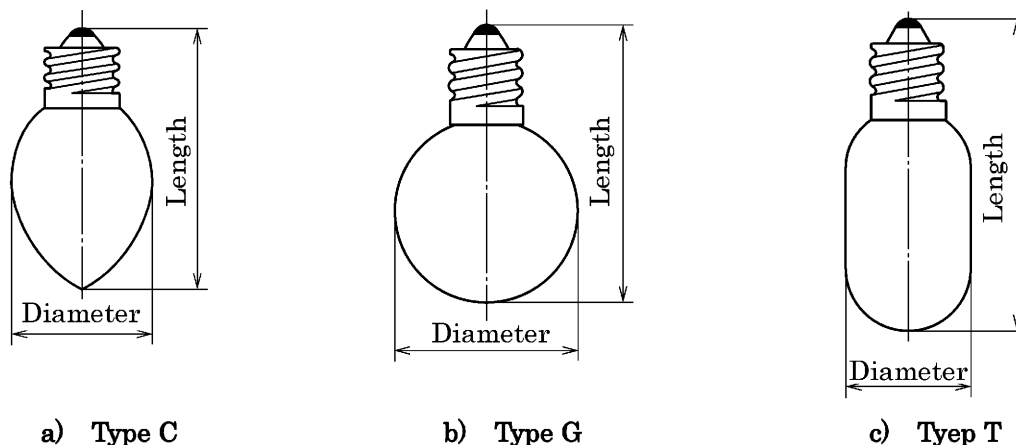


Figure 1 Dimensions of lamps for E12/15 cap

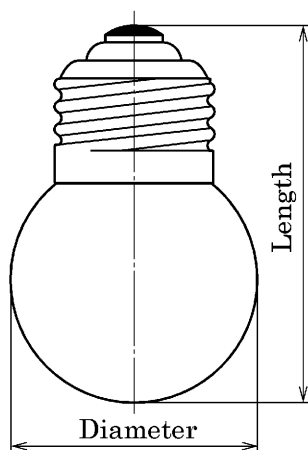


Figure 2 Dimensions of lamps for E26/25 cap

5.4 Initial characteristics

5.4.1 Wattage

The wattage shall not exceed the value obtained by adding 0.5 W to 104 % of the rated wattage specified in the data sheet.

5.4.2 Initial luminous flux

The rated initial luminous flux of a lamp shall be as given in the data sheet.

5.5 Life

The individual value of life shall be not less than 70 % of the rated life specified in the data sheet and the average shall be not less than 96 %.

6 Inspection

6.1 Type inspection

The type inspection shall be performed for the following items in accordance with Annex A using the same test specimen. For the type inspection the requirements of **5.3** to **5.5** shall be met.

- a) Dimensions
- b) Initial characteristics
- c) Life

6.2 Lot inspection

6.2.1 Inspection items

The lot inspection shall be performed for the following items in accordance with Annex A using the same specimen. For the lot inspection the requirements of **5.3** to **5.5** shall be met.

- a) Dimensions