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**Incandescent lamps for  
bicycle dynamo lamps**

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ICS 43.150

**Descriptors** : lamps, incandescent lamps, direct-current generators, cycles

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## Foreword

This Standard has been prepared by the proposal for revision of the Japanese Industrial Standard furnished with the draft of Industrial Standard from Japan Electric Lamp Manufacturers Association (JELMA)/ Japanese Standards Association (JSA) based on Clause 1, Article 12 applied according to Article 14 of the Industrial Standardization Law and revised by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently, **JIS C 7510 : 1992** is replaced with **JIS C 7510 : 2000**.

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# Incandescent lamps for bicycle dynamo lamps

## Chapter 1 General

**1.1 Scope** This Japanese Industrial Standard specifies the incandescent lamps used for bicycle dynamo lamps (hereafter referred to as "lamps") which satisfy the following requirements:

Rated voltage: 6 V

Shape of glass bulb: G, B or T

Cap: E10/13 or EP10/14 × 11

Remarks : The shape and dimensions of the caps are as specified in **JIS C 7709-1**.

**1.2 Normative reference** The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The normative references without the indication of the year of coming to effect (or the year of publication) apply limiting only to the most recent edition.

JIS B 7507 *Vernier, dial and digital callipers*

JIS C 1102-2 *Direct acting indicating analogue electrical measuring instruments and their accessories Part 2 : Special requirements for ammeters and voltmeters*

JIS C 1609 *Illuminance meters*

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

Remarks : The particulars cited from **IEC 60061-1 : 1969** *Lamp caps and holders together with gauges for the control of interchangeability and safety. Part 1 : Lamp caps* are equivalent to the relevant particulars in this Standard.

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

Remarks : The particulars cited from **IEC 60061-3 : 1969** *Lamp caps and holders together with gauges for the control of interchangeability and safety. Part 3 : Gauges* are equivalent to the relevant particulars in this Standard.

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

Remarks : The particulars cited from **IEC 60887 : 1988** *Glass bulb designation system for lamps* are equivalent to the relevant particulars in this Standard.

JIS C 7801 *General rules of testing method for lamps*

JIS C 9502 *Dynamo lamps for bicycles*

JIS Z 8113 *Lighting vocabulary*

ISO 6742-1 : 1987 *Cycles—Lighting and retro-reflective devices—Photometric and physical requirements—Part 1 : Lighting equipment*

**1.3 Definitions** For the purpose of this Standard, the definitions given in **JIS Z 8113** and the following definitions apply:

- a) **rated voltage** Voltage marked on lamps.
- b) **life** Burning time until the break of filament.
- c) **rated life** The value specified on the basis of the mean value of the lives of the same type lamps which have been manufactured for a long time.
- d) **resistance to overvoltage** Proof stress of the filament when applying overvoltage to the lamp.
- e) **reference plane** The plane taken as a basis for the determination of light center length.

**1.4 Classification** The lamps are classified as specified in **2.2** according to the types.

The types are arranged in the following order:

| 1                                                    | 2                        | 3                                           | 4                                                           | 5                                                 | 6                                       |
|------------------------------------------------------|--------------------------|---------------------------------------------|-------------------------------------------------------------|---------------------------------------------------|-----------------------------------------|
| Symbol for incandescent lamp for bicycle dynamo lamp | Symbol for rated voltage | Symbol for rated value of power consumption | Symbol for high efficiency type                             | Symbol for the shape of glass bulb                | Symbol for the type of cap              |
| D                                                    | 6 V                      | 2.4 W<br>3 W<br>6 W                         | H:<br>high efficiency type,<br>No marking:<br>standard type | B: Type B,<br>T: Type T,<br>No marking:<br>Type G | EP:<br>EP type cap,<br>E:<br>E type cap |

Remarks : To the end of the type, the symbol and numerical value may be suffixed for indicating division.

## Chapter 2 Data sheet of incandescent lamps

**2.1 Numbering of data sheet of incandescent lamps** The data sheets of incandescent lamps are numbered in such a way that C 7510-JIS is followed by numerals of four places and a letter of J, and they are suffixed by serial numbers starting from 1 which indicate the number of times of revision.

Example : C7510-JIS-1234J-1

denoting the establishment

C7510-JIS-1234J-2

denoting the first revision

C7510-JIS-1234J-3

denoting the second revision

**2.2 Types and data sheet numbers of incandescent lamps** The types of incandescent lamps and the data sheet numbers which specifies it are as given in Table 1.

**Table 1 Types and data sheet numbers**

| Type       | Data sheet number |
|------------|-------------------|
| D6V2.4WE   | C7510-JIS-5000J-1 |
| D6V2.4WHBE | C7510-JIS-5050J-1 |
| D6V2.4WHTE | C7510-JIS-5100J-1 |
| D6V3WE     | C7510-JIS-5000J-1 |
| D6V3WHBE   | C7510-JIS-5050J-1 |
| D6V3WHTE   | C7510-JIS-5100J-1 |
| D6V6WE     | C7510-JIS-5000J-1 |
| D6V2.4WEP  | C7510-JIS-5150J-1 |
| D6V3WEP    | C7510-JIS-5150J-1 |

### Chapter 3 Performance and dimensions

**3.1 Performance** The performance is as follows.

- a) **Initial characteristics** The initial characteristics shall be that the initial luminous flux and power consumption are of the values specified in the data sheet when tested in accordance with the Annex 1 (normative).
- b) **Life** The life shall be at least 50 % of the value specified in the data sheet in individual value, and at least 70 % of the value specified in the data sheet in the average value of five lamps, when tested in accordance with the Annex 1 (normative).
- c) **Resistance to overvoltage** The resistance to overvoltage shall be that the lamp withstands a voltage of 1.5 times the rated voltage when tested in accordance with the Annex 1 (normative).

**3.2 Dimensions** The dimensions are as specified in the data sheet. .

## Chapter 4 Decision of acceptability

**4.1 Test** The test condition and the test method specified in the Annex 1 (normative) and JIS C 7801 apply.

### 4.2 Inspection

**4.2.1 Type inspection** The type inspection is carried out on the same test specimen as for the following items in accordance with the methods specified in 4.1 and 5.2.1,

- a) dimensions;
- b) marking;
- c) initial characteristics;
- d) life;
- e) resistance to overvoltage.

#### 4.2.2 Lot inspection

**4.2.2.1 Inspection item** The lot inspection is carried out on the same test specimen as for the following items in accordance with the methods specified in 4.1 and 5.2.1,

- a) dimension;
- b) marking;
- c) initial characteristics;
- d) life;
- e) resistance to overvoltage.

d) and e) may be omitted in accordance with the agreement between the parties concerned with delivery.

**4.2.2.2 Sampling inspection** The sampling inspection is as specified in Table 2.

So far as the life is concerned, if the number of unacceptable specimen is one, another ten specimens are sampled, and in the case where the total number of unacceptable specimens is one, the lot is judged to be acceptable.

**Table 2 Sample size and acceptance number**

| Inspection item           | Sample size<br><i>n</i> | Acceptance number<br><i>c</i> | Quality criterion       |
|---------------------------|-------------------------|-------------------------------|-------------------------|
| Dimensions                | 5                       | 0                             | As specified in 3.2.    |
| Marking                   | 10                      | 0                             | As specified in 5.2.    |
| Initial characteristics   | 5                       | 0                             | As specified in 3.1 a). |
| Life                      | 5                       | 0                             | As specified in 3.1 b). |
| Resistance to overvoltage | 5                       | 0                             | As specified in 3.1 c). |



## Chapter 5 Designation and marking

**5.1 Designation of products** The products are designated with name and type.

Example : Incandescent lamp for bicycle dynamo lamp D6V2.4WE

### 5.2 Marking

**5.2.1 Marking on product** The lamps shall be marked on their conspicuous place and by an indelible way with the following information:

- a) **Type** The items other than the rated voltage and power consumption may be omitted, but H denoting high efficiency type shall be marked.
- b) **Manufacturer's name or abbreviation**

**5.2.2 Marking on package** The following items shall be marked on packages.

- a) name;
- b) type;
- c) manufacturer's name or abbreviation.