

Australian Standard<sup>®</sup>

**Locking devices for ball and socket  
couplings of string insulator units—  
Dimensions and tests**



This Australian Standard® was prepared by Committee EL-010, Overhead Lines. It was approved on behalf of the Council of Standards Australia on 19 November 2009. This Standard was published on 29 January 2010.

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The following are represented on Committee EL-010:

- Australian Industry Group
  - Electricity Engineers Association (New Zealand)
  - Energy Networks Association
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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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## PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee EL-010, Overhead Lines, to partly supersede AS 2947.3—1995, *Insulators—Porcelain and glass for overhead power lines—Voltages greater than 1000 V a.c.—Couplings*. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify dimensions for locking devices for ball and socket couplings used in fillings for use on overhead power lines.

This Standard is identical with, and has been reproduced from, IEC 60372, Ed. 3.0 (1984), *Locking devices for ball and socket couplings of string insulator units – Dimensions and tests* (including Amendment 1:1991 and Amendment 2:2003).

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text ‘this Standard’ should read ‘this Australian Standard’.
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The terms ‘normative’ and ‘informative’ are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

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## STANDARDS AUSTRALIA

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**Section 1 - General****1 Scope**

This standard is applicable to locking devices used with ball and socket couplings of string insulator units and used with the corresponding metal fittings standardized in ~~IEC 60120, Dimensions of ball and socket couplings of string insulator units~~ AS 60120, *Dimensions of ball and socket couplings of string insulator units*, when they are supplied separately.

When these locking devices are supplied with an insulator or fitting, they shall be considered as an integral part of it. In this case, the relevant tests shall be included with those of insulators, as specified in ~~IEC 60383, Tests on insulators of ceramic material or glass for overhead lines with a nominal voltage greater than 1000 V~~ AS 2947.1, *Insulators—Porcelain and glass for overhead power lines—Voltages greater than 1000 V a.c.—Test methods*. On request, a certificate shall be delivered confirming that the tests on locking devices as specified in this publication, have been carried out. The locking devices are usually supplied with the insulators or corresponding metal fittings.

**2 Object**

The object of this standard is:

- to define the shapes and some standard dimensions for locking devices;
- to define the test methods for locking devices;
- to state the acceptance conditions for supply;
- to give other dimensions for guidance of manufacturing only.

The object of this standard does not include the specification of the nature of the material, but it is recommended that this material does not have a surface coating for corrosion protection. Moreover, the material shall not give rise to significant contact corrosion (chemical reaction) between the locking device and the ball and socket coupling.

**3 Plan of the standard**

The main part of this standard consists of the two following sections:

**3.1 Section Two: Dimensions and general rules**

Two types of locking devices are standardized, one using a split-pin, the other a W-shaped clip.

The first type requires a circular hole and the second a rectangular hole.