AS 60471—2010

Australian Standard®

Dimensions of clevis and tongue couplings of string insulator units (IEC 60471, Ed 2.0:1977 MOD)

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.

The following are represented on Committee EL-010:

- Australian Industry Group
- Electricity Engineers Association (New Zealand)
- Energy Networks Association

This Standard was issued in draft form for comment as DR 07051.

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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First published as AS 2947.3—1995.
Revised and redesignated, in part, as AS 60471—2010.

Published by Standards Australia GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 9351 7

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 clevis and tongue couplings used in fittings for use on overhead lines.

This Standard is an adoption with national modifications and has been reproduced from, IEC 60471 Ed.2.0 (1977), *Dimensions of clevis and tongue couplings of string insulator units*, (including Amendment 1:1980) and has been varied as indicated to take account of Australian conditions.

Variations to IEC 60471 Ed.2.0 (1977) are indicated at the appropriate places throughout this Standard. Strikethrough (~~example~~) identifies IEC text, tables and figures which, for the purposes of this Australian Standard, are deleted. Where text, tables or figures are added, each is set in its proper place and identified by shading (example). Added figures are not themselves shaded, but are identified by a shaded border.

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’.

(c) A full point should be substituted for a comma when referring to a decimal marker.

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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Any table, figure or text of the international standard that is struck through is not part of this standard. Any Australian table, figure or text that is added is part of this standard and is identified by shading.

1 Scope

This standard applies to string insulator units of the cap and pin type and also of the long rod type as well as the fittings used with such insulators.

2 Object

The object of this standard is to define the dimensions of a series of clevis and tongue couplings to permit the assembly of insulators or fittings supplied by different manufacturers.

NOTE 1 – ~~IEC 60305, *Characteristics of string insulator units of the cap and pint type*,~~AS 60305, *Insulators for overhead lines with a nominal voltage above 1000 V—Ceramic or glass insulator units for a.c. systems—Characteristics of insulator units of the cap and pin type* gives the co-ordination between the standardized dimensions of Table I and the strength classes of cap and pin insulators. ~~IEC 60433, *Characteristics of string insulator units of the long rod type*,~~AS 60433, *Insulators for overhead lines with a nominal voltage above 1000 V—Ceramic insulators for a.c. systems—Characteristics of insulator units of the long rod type* gives the co-ordination between the standardized dimensions of Table II and the strength classes of long rod insulators.

NOTE 2 – If the dimensions given in Table I are not sufficient, it is recommended to use coupling pins of 25 mm, 28 mm and 32 mm which probably will be used for higher strength classes (see also note 2, Table II, of IEC 60305).

3 Definitions

3.1
Clevis and tongue coupling
Coupling which consists of a clevis, a tongue and a coupling pin.

3.2
Clevis
The female part of a clevis and tongue coupling with a U-shaped opening into which the tongue coupling can be fitted. It contains two holes through which the coupling pin may pass to couple the two components.

3.3
Tongue
The male part of a clevis and tongue coupling with a tongue-shaped extremity which fits into the U-shaped opening of the clevis and which contains a hole through which the coupling pin may be passed.

3.4
Coupling pin
The rigid pin which passes through the holes in the clevis and tongue to couple them together. On one end, the coupling pin has a stud head; on the other, a security device (e.g. split pin) is placed to hold the pin in its place.

