

Australian Standard®

**Insulators—Porcelain and glass for
overhead power lines—Voltages
greater than 1000 V a.c.**

Part 3: Couplings

This Australian Standard was prepared by Committee EL/10, Overhead Lines. It was approved on behalf of the Council of Standards Australia on 20 September 1988 and published on 19 May 1989.

The following interests are represented on Committee EL/10:

Australian Electrical and Electronic Manufacturers' Association
Australian Porcelain Insulators and Technical Ceramic Manufacturers'
Association
Confederation of Australian Industry
Electrical and Radio Federation of Victoria
Electricity Supply Association of Australia
Railways of Australia Committee

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Revised and redesignated AS 1137.1—1972.
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Revised and redesignated AS 2947.3—1989.

PREFACE

This Standard was prepared by Standards Australia's Committee on Overhead Lines and is Part 3 of a new three-part Standard AS 2947 viz.

AS 2947 *Insulators—porcelain and glass for overhead power lines—Voltages greater than 1000 V a.c.*

Part 1: Test methods.

Part 2: Characteristics.

Part 3: Couplings.

These parts together supersede AS 1137.1—1981, *Porcelain and glass insulators for overhead power lines (for voltages greater than 1000 V a.c.)*.

This Standard specifies the dimensional requirements for ball and socket couplings, clevis and tongue couplings and locking devices, for string insulator units. Dimensions for pin holes are given and test requirements for the locking devices are specified.

This Standard differs from AS 1137.1—1981, in the following ways:

- (a) Sections 2, 3 and 4 are based closely on and generally aligned with IEC Standards as follows:

Section 2 and Appendices A and B	— IEC 120
Section 3	— IEC 471
Section 4 and Appendix C	— IEC 372
- (b) Two standard locking devices have been specified. These are a split-pin and a W-clip.
- (c) Two 16 mm sockets have been included. Socket size 16A is specified to be used with the standard split-pin locking device. Socket size 16B is normally used with the standard W-clip locking device.
- (d) Pin insulator hole thread. Pattern 'C long' has been withdrawn due to lack of demand.

In the preparation of this Standard, consideration was given to the following Standards:

IEC 120 *Dimensions of ball and socket couplings of string insulator units*

IEC 372 *Locking devices for ball and socket couplings of string insulator units: dimensions and tests.*

IEC 471 *Dimensions of clevis and tongue couplings of string insulator units.*

Acknowledgement is made of the assistance received from those sources.

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STANDARDS AUSTRALIA

Australian Standard

Insulators—Porcelain and glass for overhead power lines—
Voltages greater than 1000 V a.c.

Part 3: Couplings

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This Standard specifies dimensions for the following insulator coupling devices:

- (a) Ball and socket couplings of string insulator units.
- (b) Clevis and tongue couplings of string insulator units.
- (c) Locking devices for ball and socket couplings of insulator units.
- (d) Insulator pin holes.

In addition to the dimensions, for locking devices, given in Section 4, the appropriate tests for the split-pins and W-clips have been included.

1.2 APPLICATION. This Standard is to be used for the range of insulators specified in AS 2947.2.

1.3 REFERENCED DOCUMENTS. The following documents are referred to in this Standard:

AS

- 1154 Insulator and conductor fittings for overhead power lines
- 1154.1 Part 1: Performance and general requirements
- 1154.2 Part 2: Dimensions

- 1199 Sampling procedures and tables for inspection by attributes
- 1399 Guide to AS 1199, Sampling procedures and tables for inspection by attributes
- 1444 Wrought alloy steels—Standard, hardenability (H) series
- 1815 Method for Rockwell hardness test
- 1815.1 Part 1: Testing of metals
- 1815.2 Part 2: Calibration of the testing machine
- 1816 Method for Brinell hardness test
- 1816.1 Part 1: Testing of metals
- 1816.2 Part 2: Calibration of the testing machine
- 2490 Sampling procedures and charts for inspection by variables for percent defective
- 2947 Insulators—Porcelain and glass for overhead power lines—Voltages greater than 1000 V a.c.
- 2947.1 Part 1: Test methods
- 2947.2 Part 2: Characteristics
- B129 Design for geometric limit gauges (plain and screwed in inch units)
- ISO
- 6507 Metallic materials—Hardness test—Vickers test
- 6507/1 Part 1: HV 5 to HV 100