AS 2947.3—1989

Australian Standard®

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

Part 3: Couplings

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STANDARDS AUSTRALIA

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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

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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 Pattern 'C long' has been withdrawn due to lack of demand.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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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