

Australian Standard™

**Insulators—Porcelain and glass, pin and
shackle type—Voltage not exceeding
1000 V a.c.**

This Australian Standard was prepared by Committee EL-010, Overhead Lines. It was approved on behalf of the Council of Standards Australia on 23 May 2005. This Standard was published on 14 June 2005.

The following are represented on Committee EL-010:

Australasian Railway Association
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Australian Porcelain Insulators Association
Electricity Engineers Association (New Zealand)
Energy Networks Association

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Originally a part of AS C67—1939.
Previous edition AS 3608—1989.
Second edition 2005.

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Published by Standards Australia, GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 6773 7

PREFACE

This Standard was reviewed by the Australian members of the Joint Standards Australia/Standards New Zealand committee EL-010, Overhead Lines. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to republish this Australian Standard without technical alterations. There are minor editorial changes and cross-references to referred Standards have been updated.

The Standard applies to porcelain and glass, pin and shackle insulators for voltage up to 1000 V and deals with their dimensions, materials and mechanical performance requirements.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard

Insulators—Porcelain and glass, pin and shackle type—Voltages not exceeding 1000 V a.c.**1 SCOPE AND GENERAL****1.1 Scope**

This Standard specifies requirements for low voltage pin and shackle insulators in which the insulating material is of porcelain or annealed glass, and which are for use outdoors at nominal voltage not greater than 1000 V a.c. and a frequency of not greater than 60 Hz.

NOTE: Appendix A lists information which should be specified by the purchaser of the insulators.

1.2 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, material, general requirements and dimensions |
| 2947 | Insulators—Porcelain and glass for overhead power lines—Voltages greater than 1000 V a.c. |
| 2947.3 | Part 3: Couplings |

1.3 Definitions

For the purpose of this Standard the definitions below apply.

1.3.1 Pin insulator

Insulator consisting of an insulating component intended to be mounted rigidly on a supporting structure by means of a pin passing up inside the insulator. The insulating component may consist of one or more pieces of insulating material permanently connected together with or without a permanently attached pin. The permanent pin insulator has an integral pin.

Separable pin insulators are provided with a threadform in accordance with AS 2947.3. The threadform may be integral or a metal insert cemented into the pin hole.

Unless otherwise stated, the term 'pin insulator' does not include the pin if separable.

1.3.2 Shackle insulator

An insulator consisting of one ceramic or glass part, secured by means of a steel spindle passing through it.

1.3.3 Lot

A group of insulators offered for acceptance from the same manufacturer, of the same design and manufactured under similar conditions of production.

1.3.4 Mechanical failing load

The maximum mechanical load at which failure occurs in an insulator when tested under the prescribed conditions.