AS 3609—2005

Australian Standard™

Insulators—Porcelain stay type—Voltages greater than 1000 V a.c.

STANDARDS AUSTRALIA

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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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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 stay insulators, used in conjunction with stay wires and it deals with general requirements, characteristics and methods of test.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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1 SCOPE AND GENERAL

1.1 Scope

This Standard specifies requirements for porcelain stay insulators as defined in Clause 1.3.1 and which are incorporated with the stay wires used for poles supporting overhead lines.

NOTE: Appendix B lists information that should be specified by the purchaser of the insulators.

1.2 Referenced documents

The following documents are referred to in this Standard.

AS
1222 Steel conductors and stays—Bare overhead
1222.1 Part 1: Galvanized (SC/GZ)

1931 High-voltage test techniques
1931.1 Part 1: General definitions and test requirements

1.3 Definitions

For the purpose of this Standard the definitions below apply.

1.3.1 *Stay insulator*

Insulator consisting of one part, with two transverse holes for the insertion of stay wires and hereafter referred to as ‘insulator’.

1.3.2 *Power-frequency wet flashover voltage*

Arithmetic mean value of the measured voltages which cause flashover of the insulator under the conditions prescribed in Clause 2.2.

1.3.3 *Flashover*

Disruptive discharge external to the insulator, connecting those parts which normally have the operating voltage between them.

NOTE: In this Standard the term ‘flashover’ includes a flashover across the insulator surface as well as disruptive discharge by sparkover through air adjacent to the insulator.

1.3.4 *Mechanical failing load*

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

1.3.5 *Lot*

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

