Australian Standard®

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

Part 2: Characteristics

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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PREFACE

This Standard was prepared by Standard Australia's Committee on Overhead Lines and is Part 2 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 characteristics for porcelain and glass string insulator units of cap and pin and long rod types, and line post and pin insulators in the same materials.

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—IEC 305
Section 3—IEC 433
Section 4—IEC 720

(b) The 44 kN and 111 kN cap and pin insulators have been withdrawn. 66 kN and 187 kN cap and pin insulators have been included as 70 kN and 190 kN respectively, to align with IEC strength ratings.

(c) Standard characteristics of 70 kN and 125 kN long rod insulators have been included.

(d) In Section 4, characteristics of line post insulators in common use in Australia have been included.

(e) Characteristics of pin insulators are not covered by any IEC Standards, and accordingly, Section 5 was prepared using data from the following:

AS 1137.1-1981.

AS 1154.2, *Insulator and conductor fittings for overhead power lines, Part 2: Dimensions.*

The range of pin insulators standardized by the Electricity Supply Association of Australia.

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

IEC 305 *Characteristics of string insulator units of the cap and pin type*

IEC 433 *Characteristics of string insulator units of the long rod type*

IEC 720 *Characteristics of line post insulators*

Acknowledgment is made of the assistance received from those sources.

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