AS 60305—2007
IEC 60305 Ed.4.0 (1995)
Reconfirmed 2018

AS 60305—2007

Australian Standard®

Insulators for overhead lines with a nominal voltage above 1000 V—Ceramic or glass insulator units for a.c. systems—Characteristics of insulator units of the cap and pin type

This Australian Standard® was prepared by Committee EL-010, Overhead Lines. It was approved on behalf of the Council of Standards Australia on 5 September 2007.
This Standard was published on 7 December 2007.

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

This Standard was issued in draft form for comment as DR 07049.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting **www.standards.org.au**

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at **mail@standards.org.au**, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 60305–2007

Insulators for overhead lines with a nominal voltage above 1000 V–Ceramic or glass insulator units for a.c. systems–Characteristics of insulator units of the cap and pin type

RECONFIRMATION NOTICE

Technical Committee EL-010 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 13 March 2018.

The following are represented on Technical Committee EL-010:
Aerial Application Association of Australia
Australian Industry Group
Civil Aviation Safety Authority
Communications, Electrical and Plumbing Union - Electrical Division
Energy Networks Australia
Energy Safe Victoria
Engineers Australia
NSW Department of Industry, Skills and Regional Development

NOTES

Australian Standard®

Insulators for overhead lines with a nominal voltage above 1000 V—Ceramic or glass insulator units for a.c. systems—Characteristics of insulator units of the cap and pin type

Originally as part of AS C67—1939.
Previous edition part of AS/NZS 2947.2:2002.
Revised in part and redesignated as AS 60305—2007.

Published by Standards Australia GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 8476 3

PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee EL-010, Overhead Lines to partly supersede AS/NZS 2947.2:2002, *Insulators—Porcelain and glass for overhead power lines—Voltages greater than 1000 V a.c*., Part 2: *Characteristics.* After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify characteristics for cap and pin insulators for use on overhead power lines.

This Standard is identical with, and has been reproduced from IEC 60305 Ed.4.0 (1995), *Insulators for overhead lines with a nominal voltage above 1000 V—Ceramic or glass insulator units for a.c. systems—Characteristics of insulator units of the cap and pin type*.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text 'IEC 60305' should read 'AS 60305'.

(c) A full point should be substituted for a comma when referring to a decimal marker.

CONTENTS

NOTES

STANDARDS AUSTRALIA

Australian Standard

Insulators for overhead lines with a nominal voltage above 1000 V—Ceramic or glass insulator units for a.c. systems—Characteristics of insulator units of the cap and pin type

Any table, figure or text of the international standard that is struck through is not part of this standard. Any Australian table, figure or text that is added is part of this standard and is identified by shading.

1 Scope and object

This International Standard applies to string insulator units of the cap and pin type with insulating parts of ceramic material or glass, intended for a.c. overhead lines with a nominal voltage greater than 1 000 V and a frequency not greater than 100 Hz. It also applies to insulators of similar design used in substations.

This standard applies to string insulator units of the cap and pin type either with ball and socket couplings or with clevis and tongue couplings.

This standard applies to string insulator units for use on overhead lines in clean areas and polluted areas. For use in areas characterized by very heavy pollution levels and for other particular or extreme environmental conditions, it may be necessary for certain dimensions to be changed and insulator units having different creepage distances, spacing and forms may be preferred (for example, flat profile, hemispherical etc.). Insulators for use on d.c. systems may also need different dimensions. In any case, it is recommended that the standardized mechanical characteristics of the present International Standard and coupling sizes are retained.

The object of this standard is to prescribe specified values for the mechanical characteristics and for the main dimensions of string insulator units of the cap and pin type.

The power frequency, lightning impulse and puncture withstand voltages of string insulator units are not specified in this standard. IEC 60383-1 gives the electrical characteristics which define string insulator units; their values shall be agreed between purchaser and manufacturer.

Ball and socket couplings are covered by IEC 60120, clevis and tongue couplings by IEC 60471.

NOTE – For the definition of pollution levels see IEC 60815.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.