AS 4362.1—1996 IEC 1180-1:1992

## Australian Standard®

High-voltage test techniques for low-voltage equipment

Part 1: Definitions, test and procedure requirements

This Australian Standard was prepared by Committee EL/7, Power Switchgear. It was approved on behalf of the Council of Standards Australia on 22 November 1995 and published on 5 February 1996.

The following interests are represented on Committee EL/7:

Australian British Chamber of Commerce

Australian Chamber of Commerce and Industry

Australian Electrical and Electronic Manufacturers Association

Electricity Supply Association of Australia

Institution of Engineers, Australia

Railways of Australia

Testing Interests, Australia

WorkCover Authority of N.S.W.

**Review of Australian Standards.** To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

AS 4362.1—1996

## Australian Standard®

# High-voltage test techniques for low-voltage equipment

Part 1: Definitions, test and procedure requirements

ii

#### **PREFACE**

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/7 on Power Switchgear. It is identical with and has been reproduced from IEC 1180-1:1992, High-voltage test techniques for low-voltage equipment, Part 1: Definitions, test and procedure requirements.

It is the result of a consensus among representatives on the Joint Committee to produce it as an Australian Standard.

This Standard is Part 1 of AS 4362, *High-voltage test techniques for low-voltage equipment*, which is published in two Parts as follows:

Part 1: Definitions, test and procedure requirements

Part 2: Test equipment

It covers the high-voltage testing of low-voltage equipment and is based on AS 1931.1—1996.

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

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

- (a) Its number is shown only on the cover and title page, while the international Standard number appears only on the cover.
- (b) In the source text, 'this International Standard' should read 'this Australian Standard'.
- (c) A full point substitutes for a comma when referring to a decimal marker.

References to international Standards should be replaced by equivalent Australian Standards, as follows:

References to International Standard		Australian Standard		
IEC		AS		
68	Environmental testing	1099	Basic environmental testing procedures for electrotechnology	
68-1	Part 1: General and guidance	1099.1	Part 1: General	
270	Partial discharge measurements	1018	Partial discharge measurements	
664	Insulation co-ordination within low-voltage systems including clearances and creepage distances for equipment			

#### © Copyright - STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

iii

### **CONTENTS**

SECTION 1: GENERAL					
	native references				
	SECTION 2: DEFINITIONS				
2.1 Impu	Ise techniques and insulation	. 2			
2.1.1	Impulse				
2.1.2	Partial breakdown				
2.1.3	Clearance [IEV 441-17-31]				
2.1.4	Creepage distance [IEV 151-03-37]				
2.1.5	Solid insulation				
2.2 Char	acteristics related to disruptive discharge and test voltages				
2.2.1	Disruptive discharge				
2.2.2	Characteristics of the test voltage				
2.2.3	Disruptive discharge voltage				
2.2.4	Withstand voltage				
2.2.5	Assured disruptive discharge voltage				
SECTION 3	8: GENERAL REQUIREMENTS RELATING TO TEST PROCEDURES	<b>S</b>			
	AND TEST OBJECTS				
3.1 Gene	eral requirements for test procedures	. 4			
	eral arrangement of the test object				
	spheric conditions				
3.3.1	Standard reference atmosphere				
3.3.2	Atmospheric correction factor				
	SECTION 4: TESTS WITH DIRECT VOLTAGE				
4.1 Defin	itions for direct voltage tests	. 5			
4.1.1	Value of the test voltage				
4.1.2	Ripple				
4.2 Test	voltage				
4.2.1	Requirements for the test voltage				
4.2.2	Generation and measurement of the test voltage	. 6			



The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

**Product Page** 

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation