

AS 2732—1984

Australian Standard[®]

**GUIDE TO THE LIGHTNING
IMPULSE AND SWITCHING
IMPULSE TESTING OF POWER
TRANSFORMERS AND
REACTORS**

This Australian standard was prepared by Committee EL/8, Static Electrical Machinery. It was approved on behalf of the Council of the Standards Association of Australia on 6 July 1984 and published on 5 October 1984.

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Australian-British Trade Association
Australian Electrical and Electronic Manufacturers Association Limited
Confederation of Australian Industry
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PREFACE

This standard was prepared by the Association's Committee on Static Electrical Machinery. It is technically identical with and has been reproduced from IEC 722—1982, Guide to the Lightning Impulse and Switching Impulse Testing of Power Transformers and Reactors.

The purpose of this guide is to give guidance on the existing procedures for lightning and switching impulse testing of power transformers to supplement the requirements of AS 2374, Power Transformers, Part 3—Insulation Levels and Dielectric Tests. The contents of this guide are also generally applicable to the testing of reactors.

For the purpose of this Australian standard, the text of the IEC standard should be modified as follows:

- (a) *Clause 6.3.* Add the following new final paragraph:

Except for the switching surge test, the sensitivity of fault detection circuit chosen should be confirmed by preliminary tests. These tests are usually carried out with a recurrent surge generator. These tests illustrate the kinds of fault which could be detected during impulse testing. All relevant impedance values of the preliminary test measurements and fault detection circuits should be the same as for the full scale test.

- (b) *Cross-references.* The references to IEC Publications should be replaced by references to Australian standards as follows:

<i>Reference to IEC Publication</i>	<i>Appropriate Australian Standard</i>
IEC 60: High-voltage Test Techniques	AS 1931 High-voltage Testing Techniques Part 1—General Definitions, Test Requirements, Test Procedures and Measuring Devices
IEC 60-2: Part 2: Test Procedures	
IEC 60-3: Part 3: Measuring Devices	
IEC 60-4: Part 4: Application Guide for Measuring Devices	Part 2—Application Guide for Measuring Devices
IEC 76-3: Power Transformers Part 3 — Insulation Levels and Dielectric Tests	AS 2374 Power Transformers Part 3—Insulation Levels and Dielectric Tests
IEC 289: Reactors	AS 1028 Power Reactors and Earthing Transformers

NOTE: References to page numbers in the text relate to IEC page numbers given in parenthesis at the bottom of each page.

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CONTENTS

	<i>Page</i>
CLAUSE	
1 Scope	5
2 General	5
3 Specified Wave-shapes	6
4 Test Circuit	6
5 Calibration	7
6 Lightning Impulse Tests	8
6.1 Wave-shapes	8
6.2 Impulses Chopped on the Tail	8
6.3 Terminal Connections of the Test Object and Methods of Failure Detection	9
6.4 Test Procedures	10
6.5 Oscillographic Recording	10
7 Switching Impulse Tests	12
7.1 Special Requirements	12
7.2 Transformers	12
7.3 Reactors	15
8 Interpretation of Oscillograms	16
8.1 Lightning Impulse	16
8.2 Switching Impulse	18
FIGURES	19
APPENDICES	
A Principles of Wave-shape Control	23
B Examples of Oscillographic Records	28

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