

AS 1307.2—1996

Australian Standard<sup>®</sup>

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**Surge arresters**

**Part 2: Metal-oxide surge arresters  
without gaps for a.c. systems**

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This Australian Standard was prepared by Committee EL/7, Power Switchgear. It was approved on behalf of the Council of Standards Australia on 12 August 1996 and published on 5 December 1996.

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Australian Electrical and Electronic Manufacturers Association  
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## PREFACE

This Standard was prepared by the Standards Australia Committee EL/7 on Power Switchgear to supersede AS 1307.2, *Surge arresters (diverters), Part 2: Metal-oxide type for a.c. systems*.

This Standard is Part 2 of a series which when completed will consist of the following:

AS

1307 Surge arresters

Part 1: Silicon carbide type for a.c. systems

Part 2: Metal-oxide surge arresters without gaps for a.c. systems

Part 3: Distribution type metal-oxide surge arresters with gaps for a.c. systems

Part 4: Application guide

This Standard is based on and contains the full text of IEC 99-4, *Surge arresters, Part 4: Metal-oxide surge arresters without gaps for a.c. systems* and includes changes for Australian conditions. The IEC text being amended has been retained and is shown boxed. The changes and additions are indicated by a marginal bar.

The objective of this Standard is to adopt IEC 99-4 where possible, and add requirements for—

- (a) tests for verification of spark production class;
- (b) seal leak and seal ageing tests;
- (c) polymer housing tests; and
- (d) multiple lightning surge operating duty test.

This Standard presents the minimum criteria for the requirements and testing of gapless metal-oxide surge arresters that are applied to a.c. power systems.

Arresters covered by this Standard are commonly applied to live/front overhead installations in place of the non-linear resistor type gapped arresters covered in AS 1307.1. Protection of low-voltage circuits, below 1 kV, is under consideration.

An accelerated ageing procedure is incorporated in the Standard to simulate the long-term effects of voltage and temperature on the metal-oxide arrester. This is necessary since the metal-oxide resistors will have system power frequency voltage across them during the time the arrester is in service.

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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