

Australian Standard 2086—1984

HIGH-VOLTAGE A.C. SWITCHGEAR AND CONTROLGEAR— METAL-ENCLOSED— RATED VOLTAGES ABOVE 1 kV UP TO AND INCLUDING 72.5 kV

[Title allocated by the Defence Cataloguing Authority: SWITCHGEAR AND CONTROLGEAR ELECTRICAL (Metal Enclosed, above 1 kV up to and including 72.5 kV)]



STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter

This Australian standard was prepared by Committee EL/7, Power Switchgear. It was approved on behalf of the Council of the Standards Association of Australia on 28 May 1984 and published on 3 August 1984.

The following interests are represented on Committee EL/7:

Australian-British Trade Association
Australian Electrical and Electronic Manufacturers Association
Electricity Supply Association of Australia
Institution of Engineers, Australia
Railways of Australia Committee
Testing Authorities

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 SAA publications will be found in the Catalogue of Australian Standards; this information is supplemented each month by SAA's journal '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which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn standards.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 the Association, 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.

This standard was issued in draft form for comment as DR 83024.

AUSTRALIAN STANDARD

**HIGH-VOLTAGE A.C.
SWITCHGEAR AND
CONTROLGEAR—
METAL-ENCLOSED—RATED
VOLTAGES ABOVE 1 kV UP TO AND
INCLUDING 72.5 kV**

AS 2086—1984

First published	1977
Second edition	1984

**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA,
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.**

ISBN 0 7262 3445 1

PREFACE

This edition of this standard was prepared by the Association's Committee on Power Switchgear to supersede AS 2086—1977, Metal-enclosed Switchgear and Control-gear for Rated Voltages above 1 kV up to and including 72.5 kV.

It is based on the 1981 edition of IEC 298 and closely follows the editorial format of AS 2650. The clause numbering is generally in line with the clauses in IEC 298.

This standard is intended to be read in conjunction with AS 2650, as in general, the clauses herein refer to, modify or supplement the corresponding clauses of AS 2650. Clauses having numbers with a component part of 101 or greater are specific to this standard only. Where clauses in AS 2650 apply without amendment in this standard they are listed in bold in the contents.

Where this standard deviates technically from IEC 298 by way of additional or different requirements, this fact is indicated by a rule in the margin against the clause, table, or part thereof, affected. A summary of technical variations between this standard and IEC 298 is given in the Annex.

In line with the 1981 edition of IEC 298 and AS 2650, this edition of this standard differs considerably from the 1977 edition and includes provisions covering the degree of protection against the effects of arcing due to internal fault.

©Copyright — STANDARDS ASSOCIATION OF AUSTRALIA 1984

Users of standards are reminded that copyright subsists in all SAA publications. No part of this publication may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing of the Standards Association of Australia.

CONTENTS

NOTE: The listing of clauses in **bold** below indicates that those clauses in AS 2650 apply without amendment in this standard.

	<i>Page</i>
1. SCOPE AND GENERAL	
1.1 Scope	5
1.2 Application	5
1.3 Referenced Documents	5
2. SERVICE CONDITIONS	
2.1 Normal and Special Service Conditions	5
3. DEFINITIONS	
3.1 General	5
4. RATED CHARACTERISTICS	
4.0 Ratings	7
4.1 Rating Voltage	7
4.2 Rated Insulation Level	7
4.3 Rated Frequency	7
4.4 Rated Normal Current and Temperature Rise	7
4.5 Rated Short-time Withstand Current	7
4.6 Rated Peak Withstand Current	7
4.7 Rated Duration of Short-circuit	7
4.8 Rated Supply Voltage of Closing and Opening Devices and Auxiliary Circuits	7
4.9 Rated Supply Frequency of Operating Devices and Auxiliary Circuits	7
4.10 Rated Pressure of Compressed Gas Supply for Operation	7
4.11 Rated Mechanical Load of Terminals	7
5. DESIGN AND CONSTRUCTION	
5.0 General	7
5.1 Requirements for Liquids	8
5.2 Requirements for Gases	8
5.3 Earthing	8
5.4 Auxiliary Equipment	8
5.5 Dependent Power Closing—Opening	8
5.6 Stored Energy Closing—Opening	8
5.7 Operation of Releases	8
5.8 Low and High Pressure Interlocking Devices	8
5.9 Nameplates	8
5.101 Degree of Protection and Internal Fault	8
5.102 Enclosure	9
5.103 Partitions and Shutters	9
5.104 Disconnectors and Earthing Switches	10
5.105 Interlocks	10
5.106 Provisions for Dielectric Tests on Cables	10
6. TYPE TESTS	
6.0 General	11
6.1 Dielectric Tests	11
6.2 Radio Interference Voltage (RIV) Tests	12
6.3 Temperature-rise Tests	12
6.4 Measurement of Resistance of the Main Circuit	13
6.5 Short-time and Peak Withstand Current Tests	13
6.101 Verification of Making and Breaking Capacities	13
6.102 Mechanical Operation Tests	13

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

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