AS 3439.3—1995
IEC 439-3:1990/Amd.1:1993

Australian Standard®

Low-voltage switchgear and controlgear assemblies

Part 3: Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use — Distribution boards

This Australian Standard was prepared by Committee EL/6, Industrial Switchgear and Controlgear. It was approved on behalf of the Council of Standards Australia on 17 October 1994 and published on 5 January 1995.

The following interests are represented on Committee EL/6:

Australian-British Chamber of Commerce

Australian Electrical and Electronic Manufacturers Association

Bureau of Steel Manufacturers of Australia

Electrical Contractors Association of Australia

Electrical Supply Association of Australia

Independent Electrical Switchboard Manufacturers Association (Australia)

Institution of Engineers, Australia

Ministry of Commerce, NZ

Railways of Australia Committee

Water Board, Sydney - Illawarra - Blue Mountains

WorkCover Authority of New South Wales

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PREFACE

This Standard was prepared by the Joint Standards Australia/ Standards New Zealand Committee EL/6 on Industrial Switchgear and Controlgear as an Australian Standard.

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

This Standard is Part 3 of the following series:

AS
3439 Low-voltage switchgear and controlgear assemblies

- Part 1: Type-tested and partially type-tested assemblies
- Part 2: Particular requirements for busbar trunking systems (busways)
- Part 3: Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use — Distribution boards
- Part 4*: Particular requirements for assemblies for construction sites (ACS)

With the exception of Appendix AA, this Standard is equivalent in technical content but not in full presentation to IEC 439-3—1990, *Low-voltage switchgear and controlgear assemblies*, Part 3: *Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use — Distribution boards*, including Amendment 1.

Appendix AA lists the variations between this Standard and IEC 439-3. For the purposes of this Standard, the IEC text is amended, supplemented or replaced as set out in Appendix AA. These changes are indicated by a marginal bar against the relevant clause, note, table, figure or part thereof affected.

The changes required by Amendment 1 have been made and are indicated by double marginal bars against each clause, table, figure or part thereof.

The clauses of this Standard modify or replace the corresponding clauses of AS 3439.1. Where there is no corresponding clause or sub-clause, the clause or sub-clause of AS 3439.1 applies.

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, ‘this International Standard’ should read ‘this Australian Standard’.

(c) A full point substitutes for a comma when referring to a decimal marker.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

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

Reference to International Standard		*Australian Standard*	
IEC		AS	
68	Basic environmental testing procedures	1099.2.3	Basic environmental testing procedures for electrotechnology — Test Ca — Damp heat, steady state
68-2-3	Part 2: Tests — Test Ca: Damp heat, steady state		

* In course of preparation.

IEC		AS	
68-2-63	Part 2: Tests — Test Eg: Impact, spring hammer	—	
269	Low-voltage fuses	2005	Low voltage fuses — Fuses with enclosed fuse-links
269-3	Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)	2005.30	Part 30: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)
529	Degrees of protection provided by enclosures (IP Code)	1939	Degrees of protection provided by enclosures for electrical equipment (IP Code)
695	Fire hazard testing	2420	Fire test methods for solid insulating materials and non-metallic enclosures used in electrical equipment
695-2-1	Part 2: Test methods— Glow-wire test and guidance		
947	Low-voltage switchgear and controlgear	3947	Low voltage switchgear and controlgear
947-1	Part 1: General rules	3947.1	Part 1: General rules
ISO			
4046	Paper, board, pulp and related terms — Vocabulary	—	

Referenced documents listed in Appendix AA:

AS

3135 Approval and test specification for semi-enclosed fuses for a.c. circuits

3439 Low-voltage switchgear and controlgear assemblies

3439.1 Part 1: Type-tested and partially type-tested assemblies

3865 Calculation of the effects of short-circuit currents

IEC

269 Low-voltage fuses

269-3 Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)

439 Low-voltage switchgear and controlgear assemblies

439.3 Part 3: Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use — Distribution boards

890 A method of temperature-rise assessment by extrapolation for partially type-tested assemblies (PTTA) of low-voltage switchgear and controlgear

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1 General

1.1 Scope

Replace the note by:

This standard gives supplementary requirements for such enclosed distribution boards (DBU), which are stationary, type tested assemblies (TTA) for indoor use, containing protective devices and intended for use either in domestic (household) applications or in other places where unskilled persons have access for their use. Control and/or signalling devices may also be included. They are for use on a.c., with a nominal voltage to earth not exceeding 300 V. The outgoing circuits contain short-circuit protective devices, each having a rated current not exceeding 125 A with a total incoming load current not exceeding 250 A.

NOTE — The nominal voltage to earth in an IT system is taken as the nominal voltage of the system.

Unskilled persons normally have access to these assemblies, e.g. for switching operations and for replacing fuse-links.

2 Definitions

2.1 *General definitions*

2.1.1.2 *Partially type tested assembly (PTTA)*

Not applicable.

2.1.9 *Test situation*

Not applicable.

2.1.10 *Distribution board*

An assembly containing switching or protective devices (e.g. fuses or miniature circuit-breakers) associated with one or more outgoing circuits fed from one or more incoming circuits, together with terminals for the neutral and protective circuit conductors. It may also include signalling and other control devices. Means of isolation may be included in the board or may be provided separately.