

Australian/New Zealand Standard™

Low-voltage switchgear and controlgear assemblies

Part 3: Distribution boards intended to be operated by ordinary persons (DBO) (IEC 61439-3 Ed. 1.0 (2012), MOD)

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AS/NZS 61439.3:2016

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The following are represented on Committee EL-006:

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Business New Zealand
Electrical Contractors Association of New Zealand
Engineers Australia
National Electrical and Communications Association
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Low-voltage switchgear and controlgear assemblies

Part 3: Distribution boards intended to be operated by ordinary persons (DBO) (IEC 61439-3 Ed. 1.0 (2012), MOD)

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-006, Industrial Switchgear and Controlgear, to supersede AS/NZS 3439.3:2002 five years from the date of publication.

The AS/NZS 61439 series will supersede the AS/NZS 3439 series five years from the date of publication. During this period, low-voltage switchgear and controlgear assemblies may comply with either series. After five years it is anticipated that the AS/NZS 3439 series will be withdrawn.

The objective of this Standard is, in conjunction with Part 1 of the series, to define specific requirements for distribution boards intended to be operated by ordinary persons (DBO).

Where tests on the ASSEMBLY have been conducted in accordance with the IEC 60439, IEC 61439 or AS/NZS 3439 series and the test results fulfil the requirements of the relevant part of AS/NZS 61439, the verification of these requirements need not be repeated (see Clause 10.1 of Part 1).

This Standard is an adoption with national modifications. It has been reproduced from IEC 61439-3, Ed. 1.0 (2012), *Low-voltage switchgear and controlgear assemblies, Part 3: Distribution boards intended to be operated by ordinary persons (DBO)* and its Corrigendum 1 (2013) which has been added at the end of the source text and has been varied as indicated to take account of Australian/New Zealand conditions.

Variations made to IEC 61439-3, Ed. 1.0 (2012) form the Australian/New Zealand variations for the purposes of the CB scheme for recognition of testing to standards for safety of electrical equipment. They are listed in Appendix ZZ for easy reference.

This Standard is structured as follows:

- (a) Preface.
- (b) IEC 61439-3, Ed. 1.0 (2012) (unedited from the contents page to the final clause of the source document).
- (c) Appendix ZZ—Australian/New Zealand variations to the source document.

This edition includes the following significant technical changes with respect to IEC 60439-3 (including the amendments):

- (i) Alignment with IEC 61439-1:2011.
- (ii) This Standard is to be read in conjunction with AS/NZS 61439.1. The provisions of the general rules dealt with in AS/NZS 61439.1 (hereinafter referred to as Part 1) are applicable to this Standard when they are specifically cited. When this Standard states ‘addition’ ‘modification’ or ‘replacement’, the relevant text in Part 1 is to be adapted accordingly.
- (iii) Subclauses that are numbered with a 101 (102, 103, etc.) suffix are additional to the same subclause in Part 1.

Tables and figures in this Part 3 that are new are numbered starting with 101.

New annexes in this Part 3 are lettered AA, BB, etc.

The ‘in some countries’ notes regarding differing national practices are contained in the following subclauses:

- (A) 3.1.102.
- (B) 6.1.
- (C) 8.2.1.
- (D) 8.5.3.

(E) 8.6.1.

(F) 8.8.

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

- (1) In the source text ‘this part of IEC 61439’ should read ‘this Australian/New Zealand Standard’.
- (2) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
IEC		AS/NZS	
60068	Environmental testing	60068	Environmental testing
60068-2-75	Part 2-75: Tests—Test Eh: Hammer tests	60068.2.75	Part 2.75: Tests—Test Eh: Hammer tests
60898	Electrical accessories—Circuit-breakers for overcurrent protection for household and similar installations	60898	Electrical accessories—Circuit-breakers for overcurrent protection for household and similar installations
60898-1	Part 1: Circuit-breakers for a.c. operation	60898.1	Part 1: Circuit-breakers for a.c. operation (IEC 60898-1 Ed. 1.2 (20 3) MOD)
IEC		AS/NZS	
61008	Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs)	61008	Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs)
61008-1	Part 1: General rules	61008.1	Part 1: General rules (IEC 61008-1, Ed. 3.0 (2010) MOD)
61009	Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs)	61009	Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs)
61009-1	Part 1: General rules	61009.1	Part 1: General rules (IEC 61009-1, Ed. 3.0 (2010) MOD)
61439	Low-voltage switchgear and controlgear assemblies	61439	Low-voltage switchgear and controlgear assemblies
61439-1	Part 1: General rules	61439.1	Part 1: General rules (IEC 61439-1, Ed. 2.0 (2011), MOD)

Only normative references that have been adopted as Australian or Australian/New Zealand Standard have been listed.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annexes or appendices to which they apply. A ‘normative’ annex or appendix is an integral part of the standard, whereas an ‘informative’ annex or appendix is only for information and guidance.

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AUSTRALIAN/NEW ZEALAND STANDARD

Low-voltage switchgear and controlgear assemblies

Part 3:

Distribution boards intended to be operated by ordinary persons (DBO)
(IEC 61439-3, Ed. 1.0 (2012), MOD)

1 Scope

This part of IEC 61439 defines the specific requirements for distribution boards intended to be operated by ordinary persons (DBO).

DBOs have the following criteria:

- intended to be operated by ordinary persons (e.g. switching operations and replacing fuse-links), e.g. in domestic (household) applications;
- outgoing circuits contain protective devices, intended to be operated by ordinary persons, complying e.g. with IEC 60898-1, IEC 61008, IEC 61009, IEC 62423 and IEC 60269-3;
- rated voltage to earth does not exceed 300 V a.c.;
- rated current (I_{nc}) of the outgoing circuits does not exceed 25 A and the rated current (I_{nA}) of the DBO does not exceed 250 A;
- intended for the distribution of electrical energy;
- enclosed, stationary;
- for indoor or outdoor use.

DBOs may also include control and/or signalling devices associated with the distribution of electrical energy.

This standard applies to all DBOs whether they are designed, manufactured and verified on a one-off basis or fully standardised and manufactured in quantity.

DBOs may be assembled outside the factory of the original manufacturer.

This standard does not apply to individual devices and self-contained components, such as circuit breakers, fuse switches, electronic equipment, etc. which will comply with the relevant product standards.

This standard does not apply to the specific types of ASSEMBLIES covered by other parts of IEC 61439.

2 Normative references

This clause of Part 1 applies except as follows.

Addition:

IEC 60068-2-75, *Environmental testing – Part 2: Tests – Test Eh: Hammer tests*

IEC 60269-3, *Low-voltage fuses – Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications) – Examples of standardized systems of fuses A to F*