

Australian/New Zealand Standard™

Low-voltage switchgear and controlgear assemblies

Part 4: Particular requirements for assemblies for construction sites (ACS) (IEC 61439-4, Ed. 1.0 (2012), MOD)



AS/NZS 61439.4:2016

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-006, Industrial Switchgear and Controlgear. It was approved on behalf of the Council of Standards Australia on 16 March 2016 and by the New Zealand Standards Approval Board on 4 May 2016.
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The following are represented on Committee EL-006:

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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 3439.4:2009 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 After five years it is anticipated that the AS/NZS 3439 series will be withdrawn.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 to provide specific requirements for the design of low-voltage switchgear and controlgear assemblies for use on construction sites.

This Standard is an adoption with national modifications. It has been reproduced from IEC 61439-4, Ed. 1.0 (2012), *Low-voltage switchgear and controlgear assemblies, Part 4: Particular requirements for assemblies for construction sites (ACS)* and has been varied as indicated to take account of Australian/New Zealand conditions.

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 AS/NZS 61439.1).

Variations made to IEC 61439-4, 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 61439-4, 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 the last edition of IEC 60439-4:

- (i) Modification of the title as ‘Part 4: Particular requirements for assemblies for construction sites (ACS)’.
- (ii) Alignment on IEC 61439-1 regarding the structure and technical content, as applicable to allow comparison with tested ACS.
- (iii) 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 only applicable to this standard insofar as they are specifically cited. When this standard states ‘addition’, ‘modification’ or ‘replacement’, the relevant text in Part 1 is to be adapted accordingly.
- (iv) 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 4 that are new are numbered starting with 101.

New annexes in this Part 4 are lettered AA, BB, etc.

In this Standard, terms written in small capitals are defined in Clause 3.

The reader’s attention is drawn to the fact that Annex AA lists all of the ‘in-some-country’ clauses on differing practices of a less permanent nature relating to the subject of this standard.

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

(A) In the source text ‘this part of 61439’ should read ‘this Australian/New Zealand Standard’.

(B) 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	
60068	Environmental testing	60068	Environmental testing
60068-2-42	Part 2-42: Tests—Test Kc: Sulphur dioxide test for contacts and connections	60068.2.42	Part 2.42: Tests—Test Kc: Sulphur dioxide test for contacts and connections
		AS/NZS	
60364	Electrical installations of buildings		
60364-7-704	Part 7-704: Requirements for special installations or locations—Construction and demolition site installations	3012	Electrical installations—Construction and demolition sites
		AS/NZS IEC	
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)
61558	Safety of transformers, reactors, power supply units and combinations thereof	61558	Safety of transformers, reactors, power supply units and combinations thereof
61558-2-23	Part 2-23: Particular requirements and tests for transformers and power supply units for construction sites	61558.2.23	Part 2.23: Particular requirements and tests for transformers and power supply units for construction sites

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 a 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 4:

Particular requirements for assemblies for construction sites (ACS)
(IEC 61439-4, Ed. 1.0 (2012), MOD)**1 Scope**

NOTE Throughout this standard, the abbreviation ACS (ASSEMBLY for construction site, see 3.1.101) is used for a low-voltage switchgear and controlgear assembly intended for use on construction and similar sites.

This part of 61439 defines the specific requirements of ACS as follows:

- ASSEMBLIES for which the rated voltage does not exceed 1 000 V in case of a.c. or 1 500 V in case of d.c.;
- ASSEMBLIES where the nominal primary voltage and the nominal secondary voltage of transformers incorporated in ACS are within the limits specified above;
- ASSEMBLIES intended for use on construction sites, both indoors and outdoors, i.e. temporary places of work to which the public do not generally have access and where building construction, installation, repairs, alteration or demolition of property (buildings) or civil engineering (public works) or excavation or any other similar operations are carried out;
- transportable (semi-fixed) or mobile ASSEMBLIES with enclosure.

The manufacture and/or assembly may be carried out other than by the original manufacturer.

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

This standard does not apply to ASSEMBLIES for use in the administrative centres of construction sites (offices, cloakrooms, ASSEMBLY rooms, canteens, restaurants, dormitories, toilets, etc.).

Requirements for electrical protection provided by equipment manufactured according to this International Standard are given in IEC 60364-7-704.

2 Normative references

This clause of Part 1 is applicable except as follows:

Addition:

IEC 60068-2-27:2008, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60068-2-42:2003, *Environmental testing – Part 2-42: Tests – Test Kc: Sulphur dioxide test for contacts and connections*

IEC 60364-7-704:2005, *Low-voltage electrical installations – Part 7-704: Requirements for special installations or locations – Construction and demolition site installations*