AS/NZS 61439.2:2016

Australian/New Zealand Standard™

Low-voltage switchgear and controlgear assemblies

Part 2: Power switchgear and controlgear assemblies (IEC 61439-2, Ed. 2.0 (2011), MOD)

STANDARDS Australia

STANDARDS® NEW ZEALAND PAEREWA AOTEAROA

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.
This Standard was published on 24 May 2016.

The following are represented on Committee EL-006:

Association of Accredited Certification Bodies
Australian Industry Group
Bureau of Steel Manufacturers of Australia
Business New Zealand
Electrical Contractors Association of New Zealand
Engineers Australia
National Electrical and Communications Association
National Electrical Switchboard Manufacturers Association
Rail Industry Safety and Standards Board

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.saiglobal.com or Standards New Zealand web site at www.standards.govt.nz and looking up the relevant Standard in the on-line catalogue.

For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of Standards Australia or the New Zealand Standards Executive at the address shown on the back cover.

This Standard was issued in draft form for comment as DR AS/NZS IEC 61439.2:2014.

Australian/New Zealand Standard™

Low-voltage switchgear and controlgear assemblies

Part 2: Power switchgear and controlgear assemblies (IEC 61439-2, Ed. 2.0 (2011), MOD)

First published as AS/NZS 61439.2:2016.

Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, PO Box 10729, Wellington 6011.

ISBN 978 1 76035 490 9

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-006, Industrial Switchgear and Controlgear.

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 define specific requirements of power switchgear and controlgear assemblies (PSC-ASSEMBLIES).

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 61439-2, Ed. 2.0 (2011), *Low-voltage switchgear and controlgear assemblies*, Part 2: *Power switchgear and controlgear assemblies* and has been varied as indicated to take account of Australian/New Zealand conditions.

Variations made to IEC 61439-2, Ed. 2.0 (2011) 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 61439-2, Ed. 2.0 (2011) (unedited from the contents page to the final clause of the source document).

(c) Appendix ZZ—Australian/New Zealand variations to the source document.

(d) Appendices ZA to ZC contain additional requirements and information referred to from Appendix ZZ.

This second edition includes the following significant technical changes with respect to the last edition of IEC 61439-2:

(i) Clarification of the scope.

(ii) Revision of requirements for withdrawable and removable parts.

(iii) Revision of mechanical impact test (10.2.6).

(iv) Extension of Table 101.

(v) Review of Table BB.1 to reflect modified requirements and verifications.

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.

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 2 that are new are numbered starting with 101.

New annexes in this Part 2 are lettered AA, BB, etc.

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

NOTE: Throughout the IEC 61439 series of standards, the term ASSEMBLY (see 3.1.1 of Part 1) is used for a lowvoltage switchgear and controlgear assembly.

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

(A) In the source text ‘this part of IEC 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:

Reference to International Standard		*Australian/New Zealand Standard*	
IEC		AS/NZS	
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 a Standard, whereas an ‘informative’ annex or appendix is only for information and guidance.

CONTENTS

AUSTRALIAN/NEW ZEALAND STANDARD

Low-voltage switchgear and controlgear assemblies

Part 2:
Power switchgear and controlgear assemblies
(IEC 61439-2, Ed. 2.0 (2011), MOD)

1 Scope

NOTE 1 Throughout this part, the abbreviation PSC-ASSEMBLY (see 3.1.101) is used for a power switchgear and controlgear ASSEMBLY.

This part of IEC 61439 defines the specific requirements of power switchgear and controlgear assemblies (PSC-ASSEMBLIES) 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.;
- stationary or movable ASSEMBLIES with or without enclosure;
- ASSEMBLIES intended for use in connection with the generation, transmission, distribution and conversion of electric energy, and for the control of electric energy consuming equipment;
- ASSEMBLIES designed for use under special service conditions, for example in ships and in rail vehicles provided that the other relevant specific requirements are complied with;

  NOTE 2 Supplementary requirements for ASSEMBLIES in ships are covered by IEC 60092-302.
- ASSEMBLIES designed for electrical equipment of machines. Supplementary requirements for ASSEMBLIES forming part of a machine are covered by the IEC 60204 series.

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

The manufacture and/or assembly may be carried out other than by the original manufacturer (see 3.10.1).

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 the specific types of ASSEMBLIES covered by other parts of IEC 61439. For ASSEMBLIES not covered by other parts this part applies.

2 Normative references

This clause of Part 1 is applicable except as follows.

Addition:

IEC 60947-3:2008, *Low-voltage switchgear and controlgear – Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units*

IEC 61140, *Protection against electric shock – Common aspects for installation and equipment*