

SLOVENSKI STANDARD SIST EN 61439-2:2010

01-januar-2010

G_`cd]`b]n_cbUdYhcghb]\ `ghj_U'b]\ `]b`_fa]`b]\ `bUdfUj `!`&"'XY`.`G_`cd]`a c bcghb]\ ghj_U'b]\ `]b`_fa]`b]\ `bUdfUj `fb7 `* %(' - !& &\$\$- Ł

Low-voltage switchgear and controlgear assemblies - Part 2: Power switchgear and controlgear assemblies (IEC 61439-2:2009)

Niederspannungs-Schaltgerätekombinationen - Teil 2: Energie-Schaltgerätekombinationen (IEC 61439-2)2009) DPREVIEW

Ensembles d'appareillage à basse tension - Partie 2: Ensembles d'appareillage à puissance (CEI 61439-2:2009) <u>SIST EN 61439-2:2010</u>

https://standards.iteh.ai/catalog/standards/sist/d0578540-72e6-4d56-92a7-

Ta slovenski standard je istoveten z: EN 61439-2-2010

ICS:

29.130.20 Nizkonapetostne stikalne in Low voltage switchgear and krmilne naprave controlgear

SIST EN 61439-2:2010

en,fr



iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 61439-2:2010</u> https://standards.iteh.ai/catalog/standards/sist/d0578540-72e6-4d56-92a7dadca33bf4bf/sist-en-61439-2-2010



EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 61439-2

November 2009

ICS 29.130.30

English version

Low-voltage switchgear and controlgear assemblies -Part 2: Power switchgear and controlgear assemblies (IEC 61439-2:2009)

Ensembles d'appareillage à basse tension -Partie 2: Ensembles d'appareillage de puissance (CEI 61439-2:2009)

Niederspannungs -Schaltgerätekombinationen -Teil 2: Energie -Schaltgerätekombinationen (IEC 61439-2:2009)

iTeh STANDARD PREVIEW

This European Standard was approved by CENELEC on 2009-11-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member 0-72e6-4d56-92a7dadca33bf4bf/sist-en-61439-2-2010

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization Comité Européen de Normalisation Electrotechnique Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

© 2009 CENELEC - All rights of exploitation in any form and by any means reserved worldwide for CENELEC members.

Foreword

The text of the International Standard IEC 61439-2:2009, prepared by SC 17D, Low-voltage switchgear and controlgear assemblies, of IEC TC 17, Switchgear and controlgear, was submitted to the formal vote and was approved by CENELEC as EN 61439-2 on 2009-11-01.

The following dates were fixed:

_	latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2010-11-01
-	latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2014-11-01

This standard is to be read in conjunction with EN 61439-1. The provisions of the general rules dealt with in IEC 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.

(standards.iteh.ai) This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive EMC (2004/108/EC). See Annex 2261439-2:2010 https://standards.iteh.ai/catalog/standards/sist/d0578540-72e6-4d56-92a7-

Annexes ZA and ZZ have been added by CENELEC: -61439-2-2010

Annex ZA

- 3 -

(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	<u>Title</u>	<u>EN/HD</u>	Year	
IEC 60947-3	1999	Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units	EN 60947-3	1999 ¹⁾	
IEC 61140	2001	Protection against electric shock - Common aspects for installation and equipment	EN 61140	2002	
IEC 61439-1	2009	Low-voltage switchgear and controlgear assemblies - Part 1: General rules	EN 61439-1	2009	

iTeh STANDARD PREVIEW

(standards.iteh.ai)

SIST EN 61439-2:2010

https://standards.iteh.ai/catalog/standards/sist/d0578540-72e6-4d56-92a7dadca33bf4bf/sist-en-61439-2-2010

 $^{^{1)}}$ EN 60947-3:1999 is superseded by EN 60947-3:2009, which is based on IEC 60947-3:2008.

Annex ZZ

(informative)

Coverage of Essential Requirements of EC Directive 2004/108/EC

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Article 1 of Annex I of the EC Directive 2004/108/EC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 61439-2:2010</u> https://standards.iteh.ai/catalog/standards/sist/d0578540-72e6-4d56-92a7dadca33bf4bf/sist-en-61439-2-2010



Edition 1.0 2009-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Low-voltage switchgear and controlgear assemblies – EW Part 2: Power switchgear and controlgear assemblies

Ensembles d'appareillage à basse tension <u>7:2010</u> Partie 2: Ensembles d'appareillage de puissance 40-72e6-4d56-92a7dadca33bf4bf/sist-en-61439-2-2010

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE CODE PRIX S

ICS 29.130.30

ISBN 2-8318-1017-9

CONTENTS

FOREWORD	3			
1 Scope	5			
Normative references				
3 Terms and definitions	5			
3.1 General terms	5			
3.2 Constructional units of PSC-ASSEMBLIES	6			
4 Symbols and abbreviations	7			
Interface characteristics7				
Information7				
6.1 PSC-ASSEMBLY designation marking	7			
7 Service conditions	8			
8 Constructional requirements	8			
9 Performance requirements	11			
10 Design verification	11			
11 Routine verifications	11			
Annexes	15			
Annex AA (informative) Forms of internal separations (see 8.101)	16			
Annex BB (informative) Items subject to agreement between the ASSEMBLY				
manufacturer and the user (Standards.iten.al)				
Bibliography SIST EN 61439-2:2010	22			
https://standards.iteh.ai/catalog/standards/sist/d0578540-72e6-4d56-92a7-				
Figure AA.1 - Symbols used in Figures AA.2 and AA.3 -2-2010				
Figure AA.2 – Forms 1 and 2	17			
Figure AA.3 – Forms 3 and 4	18			
Table 101 – Values of assumed loading	12			
Table 102 – Test voltages across the open contacts of equipment suitable for isc	plation12			
Table 103 – Electrical conditions for the different positions of withdrawable parts				
Table 104 – Forms of internal separation14				

- 3 -

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES –

Part 2: Power switchgear and controlgear assemblies

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committee; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, EC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication. 2-2010
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61439-2 has been prepared by subcommittee 17D: Low-voltage switchgear and controlgear assemblies, of IEC technical committee 17: Switchgear and controlgear.

The text of this standard is based on the following documents:

CDV	Report on voting
17D/358/CDV	17D/363/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This standard is to be read in conjunction with IEC 61439-1. The provisions of the general rules dealt with in IEC 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.

A list of all parts of the IEC 61439 series, under the general title *Low-voltage switchgear and controlgear assemblies* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or ANDARD PREVIEW
- amended.

(standards.iteh.ai)

<u>SIST EN 61439-2:2010</u> https://standards.iteh.ai/catalog/standards/sist/d0578540-72e6-4d56-92a7dadca33bf4bf/sist-en-61439-2-2010 61439-2 © IEC:2009

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES –

Part 2: Power switchgear and controlgear assemblies

1 Scope

This clause of Part 1 is applicable except as follows.

Addition:

This standard defines the specific requirements of power switchgear and controlgear assemblies (PSC-ASSEMBLIES), the rated voltage of which does not exceed 1000 V a.c. or 1500 V d.c.

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

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

2 Normative references (standards.iteh.ai)

This clause of Part 1 is applicable except as follows: https://standards.iteh.ai/catalog/standards/sist/d0578540-72e6-4d56-92a7dadca33bf4bf/sist-en-61439-2-2010

Addition:

IEC 60947-3:1999, Low-voltage switchgear and controlgear – Part 3: Switchgear, disconnectors, switch-disconnectors and fuse-combination units

IEC 61140:2001, Protection against electric shock – Common aspects for installation and equipment – Basic safety publication

IEC 61439-1, Low-voltage switchgear and controlgear assemblies – Part 1:General rules

3 Terms and definitions

This clause of Part 1 is applicable except as follows.

3.1 General terms

Additional definitions:

3.1.101

power switchgear and controlgear assembly (PSC-ASSEMBLY)

low-voltage switchgear and controlgear ASSEMBLY used to distribute and control energy for all types of loads, intended for industrial, commercial and similar applications where operation by ordinary persons is not intended