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Responsible committee: PEL/121/2 Low voltage switchgear and controlgear assemblies

Interested committees:

Title: BS IEC 61439-4 Low-voltage switchgear and controlgear assemblies -

Part 4: Particular requirements for assemblies for construction sites (ACS)

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



121B/142/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER:

IEC 61439-4 ED2

DATE OF CIRCULATION:

2021-07-16

CLOSING DATE FOR COMMENTS:

2021-10-08

SUPERSEDES DOCUMENTS:

121B/141/RR

IEC SC 121B : LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES

SECRETARIAT:

Germany

SECRETARY:

Mr Jörg Hußmann

OF INTEREST TO THE FOLLOWING COMMITTEES:

TC 64, SC 121A

PROPOSED HORIZONTAL STANDARD:

☐

Other TC/SCs are requested to indicate their interest, if any, in this CD to the secretary.

FUNCTIONS CONCERNED:

☒ EMC

☐ ENVIRONMENT

☐ QUALITY ASSURANCE

☒ SAFETY

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Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

TITLE:

Low-voltage switchgear and controlgear assemblies - Part 4: Particular requirements for assemblies for construction sites (ACS)

NOTE FROM TC/SC OFFICERS:

SC121B Officers support circulation of CD for project IEC 61439-4 Ed. 2

Secretary note 1: NC experts are kindly requested to refer their comments to line numbers.

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CONTENTS

1		
2		
3	FOREWORD.....	4
4	1 Scope.....	6
5	2 Normative references	6
6	3 Terms and definitions	7
7	3.1 General terms	7
8	3.2 Constructional units of ASSEMBLIES.....	7
9	3.3 External design of ASSEMBLIES	7
10	1.5 Conditions of installation of ASSEMBLIES	8
11	3.101 Function of the ACS.....	8
12	4 Symbols and abbreviations.....	9
13	5 Interface characteristics.....	9
14	5.3.1 Rated current of the ASSEMBLY (I_{nA})	9
15	5.3.1 Rated current of an ACS (I_{nA})	9
16	5.4 Rated diversity factor (RDF).....	9
17	5.6 Other characteristics	9
18	6 Information	10
19	6.1 ASSEMBLY designation marking	10
20	6.1 ACS designation marking	10
21	6.2.1 Information relating to the ASSEMBLY.....	10
22	6.2.1 Information relating to the ACS	10
23	6.2.2 Instructions for handling, installation, operation and maintenance	11
24	7 Service conditions	11
25	7.1.2 Pollution degree.....	11
26	7.2 Special service conditions.....	11
27	8 Constructional requirements	11
28	8.1.1 General.....	11
29	8.1.2 Protection against corrosion.....	12
30	8.1.4 Resistance to ultra-violet radiation	12
31	8.1.5 Mechanical strength.....	12
32	8.1.6 Lifting provision	12
33	8.2.1 Protection against mechanical impact	12
34	8.2.2 Protection against contact with live parts, ingress of solid foreign bodies and	
35	water	12
36	8.4.3.1 Installation conditions	13
37	8.4.4 Additional requirements for class II assemblies.....	13
38	8.4.6.2 Requirements related to accessibility in service by authorized persons	13
39	8.5.3 Selection of switching devices and components	13
40	8.5.101 Accessible parts of ACS	13
41	8.8 Terminals for external conductors	14
42	8.101 Supports and securing devices of ACS	14
43	8.102 Cable outlet	14
44	9 Performance requirements.....	14
45	9.3.2 Information concerning short-circuit withstand strength.....	14
46	10 Design verification	14

47	10.2.1 General.....	14
48	10.2.2.101 Verification of resistance to corrosion in a heavily polluted	
49	atmosphere 14	
50	10.2.6 Verification of protection against mechanical impact (IK code).....	15
51	10.2.6 Verification of mechanical strength	15
52	10.2.6.1 General	15
53	10.2.6.2 Impact test.....	15
54	10.2.6.3 Shock test	16
55	10.2.6.4 Results to be obtained	16
56	10.9.3.1 General	16
57	10.10.1 General	17
58	10.10.4 Verification assessment.....	17
59	11 Routine verification.....	17
60	101 Particular features of ACS	17
61	101.1 General requirements and functions.....	17
62	101.2 Incoming unit	17
63	101.3 Metering unit.....	18
64	101.4 Transformer unit	18
65	101.4.1 General	18
66	101.4.2 LV/ELV unit	18
67	101.4.3 LV/LV units.....	18
68	101.5 Outgoing units	18
69	Annexes	20
70	Annex C (informative) User information template	21
71	Annex D (informative) Design verification	26
72	Annex L (informative) Guidance on temperature rise verification	27
73	O.2 Temperature-rise limits	27
74	O.4 Calculation.....	27
75	O.5 Design rules.....	27
76	Annex M (normative) Verification of the short-circuit withstand strength of	
77	busbar structures by comparison with a tested reference design by	
78	calculation	28
79	Annex N (informative) List of notes concerning certain countries	29
80	Bibliography.....	30
81		
82	Figure 101 – Impact test using striking element	16
83		
84	Table 101 – Values of assumed loading.....	19
85	Table C.1 – Items subject to agreement between the ASSEMBLY manufacturer and the	
86	user 21	
87	Table D.1 – List of design verifications to be performed	26
88		
89		
90		

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LOW-VOLTAGE SWITCHGEAR AND
CONTROLGEAR ASSEMBLIES –****Part 4: Particular requirements for assemblies
for construction sites (ACS)**

FOREWORD

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International Standard IEC 61439-4 has been prepared by subcommittee **121B: Low-voltage switchgear and controlgear assemblies of IEC technical committee 121: Switchgear and controlgear and their assemblies for low voltage.**

This **second** edition of IEC 61439-4 cancels and replaces the **first** edition of IEC 61439-4 (2004), and constitutes a revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) ...;
- b)

144 The text of this International Standard is based on the following documents:

Draft	Report on voting
121B/XX/FDIS	121B/XX/RVD

145
146 Full information on the voting for its approval can be found in the report on voting indicated in
147 the above table.

148 The language used for the development of this International Standard is English.

149 This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in
150 accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement,
151 available at www.iec.ch/members_experts/refdocs. The main document types developed by
152 IEC are described in greater detail at www.iec.ch/standardsdev/publications.

153 The committee has decided that the contents of this document will remain unchanged until the
154 stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to
155 the specific document. At this date, the document will be

156 • reconfirmed,

157 • withdrawn,

158 • replaced by a revised edition, or

159 • amended.

160

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES –

Part 4: Particular requirements for assemblies for construction sites (ACS)

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*

199 IEC 61140:2001, *Protection against electric shock – Common aspects for installation and*
200 *equipment*

201 IEC 61439-1:2011, *Low-voltage switchgear and controlgear assemblies – Part 1: General*
202 *rules*

203 IEC 61558-2-23, *Safety of transformers, reactors, power supply units and combinations*
204 *thereof – Part 2-23: Particular requirements and tests for transformers and power supply units*
205 *for construction sites*

206 **3 Terms and definitions**

207 This clause of Part 1 is applicable except as follows:

208 *Additional terms:*

209 **3.1 General terms**

210 **3.1.101**

211 **low-voltage switchgear and controlgear assembly for construction sites**

212 **ACS**

213 combination of one or several transforming or low voltage switching devices with associated
214 control, measuring, signalling, protective and regulating equipment complete with all their
215 internal electrical and mechanical connections and structural parts, designed and built for use
216 on all construction sites, indoors and outdoors

217 **3.2 Constructional units of ASSEMBLIES**

218 **3.2.101**

219 **metering unit**

220 functional unit equipped with apparatus for metering electrical energy

221 **3.2.102**

222 **transformer unit**

223 functional unit consisting mainly of one or several transformers

224 *Modifications:*

225 **3.3 External design of ASSEMBLIES**

226 **3.3.1**

227 **open-type ASSEMBLY**

228 This term of Part 1 does not apply.

229 **3.3.2**

230 **dead-front ASSEMBLY**

231 This term of Part 1 does not apply.

232 *Replacements:*

233 **3.3.3**

234 **enclosed ACS**

235 ACS which is enclosed on all sides with the possible exception of its mounting surface in such
236 a manner as to provide a defined degree of protection

3.3.7**box-type ACS**

enclosed ACS intended:

- either to be mounted on a vertical surface;
- or to stand on a horizontal surface supported by feet or legs (articulated or not) or by a mounting not forming part of the ACS (see 3.4.2 of Part 1)

Modifications:

1.5 Conditions of installation of ASSEMBLIES**3.5.1****ASSEMBLY for indoor installation**

This term of Part 1 does not apply (see 3.1.101).

3.5.2**ASSEMBLY for outdoor installation**

This term of Part 1 does not apply (see 3.1.101).

3.5.3**stationary ASSEMBLY**

This term of Part 1 does not apply.

3.5.4**movable ASSEMBLY**

This term of Part 1 does not apply.

Additional terms:

3.5.101**transportable ACS****semi-fixed ACS**

ACS intended for use in a place where it is not permanently fixed; its location may vary during work on the same site. When the equipment is to be moved to another place, it is first disconnected from the supply

3.5.102**mobile ACS**

ACS capable of being moved as work advances on the site, without being disconnected from the supply

Additional terms:

3.101 Function of the ACS**3.101.1****incoming supply function**

suitability for connection of the ACS either to electricity public supply network or to the transformer substation or to on site generator

3.101.2**metering function**

suitability for the metering of electrical energy consumed on the site