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**Konektorji za električno in elektronsko opremo - Zahteve za izdelek - 8-107. del:**  
**Močnostni konektorji - Podrobna specifikacija za konektorje 2P 200 A, 1000 V plus**  
**2P 5 A 50 V v pravokotnih ohišjih s stopnjo zaščite IP65/IP68, če so združeni in**  
**blokirani, in IPXXB, če niso združeni**

Connectors for electrical and electronic equipment - Product requirements - Part 8-107:  
Power connectors - Detail specification for 2P 200 A, 1 000 V plus 2P 5 A 50 V  
rectangular housing shielded connectors with IP65/IP68 degree of protection when  
mated and locked, and IPXXB when unmated

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Connecteurs pour équipements électriques et électroniques - Exigences de produit -  
Partie 8-107: Connecteurs d'alimentation - Spécification particulière pour les  
connecteurs blindés rectangulaires à 2 pôles de 200 A et 1 000 V plus 2 pôles de 5 A et  
50 V, avec un degré de protection IP65/IP68 lorsqu'ils sont accouplés et verrouillés et  
IPXXB lorsqu'ils sont désaccouplés, logés dans un boîtier

**Ta slovenski standard je istoveten z: prEN IEC 61076-8-107:2022**

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**ICS:**

31.220.10	Vtiči in vtičnice, konektorji	Plug-and-socket devices. Connectors
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**oSIST prEN IEC 61076-8-107:2022 en**





# 48B/2951/CDV

## COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER:

**IEC 61076-8-107 ED1**

DATE OF CIRCULATION:

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CLOSING DATE FOR VOTING:

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**48B/2902/CD, 48B/2930/CC**

IEC SC 48B : ELECTRICAL CONNECTORS

SECRETARIAT:

United States of America

SECRETARY:

Mr Jeffrey Toran

OF INTEREST TO THE FOLLOWING COMMITTEES:

PROPOSED HORIZONTAL STANDARD:



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

FUNCTIONS CONCERNED:

☐ EMC☐ ENVIRONMENT☐ QUALITY ASSURANCE☐ SAFETY☒ SUBMITTED FOR CENELEC PARALLEL VOTING☐ NOT SUBMITTED FOR CENELEC PARALLEL VOTING**Attention IEC-CENELEC parallel voting**

The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) is submitted for parallel voting.

The CENELEC members are invited to vote through the CENELEC online voting system.

This document is still under study and subject to change. It should not be used for reference purposes.

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:

**Connectors for electrical and electronic equipment – Product requirements - Part 8-107: Power connectors – Detail specification for 2P 200 A, 1 000 V plus 2P 5 A 50 V rectangular housing shielded connectors with IP65/IP68 degree of protection when mated and locked, and IPXXB when unmated**

PROPOSED STABILITY DATE: 2025

NOTE FROM TC/SC OFFICERS:

# CONTENTS

FOREWORD.....	Error! Bookmark not defined.
1 Scope.....	8
2 Normative references .....	8
3 Terms and definitions .....	10
4 Technical information.....	10
4.1 Recommended method of termination.....	10
4.1.1 General .....	10
4.1.2 Number of contacts and contact cavities.....	10
4.2 Ratings and characteristics .....	11
4.3 Systems of levels .....	11
4.3.1 Performance levels .....	11
4.3.2 Compatibility levels .....	11
4.4 Classification into climatic categories .....	11
4.5 Clearance and creepage distance.....	11
4.6 Current-carrying capacity .....	11
4.7 Marking.....	11
5 Dimensional information .....	12
5.1 General.....	12
5.2 Isometric view and common features .....	12
5.2.1 Isometric view of free connectors .....	12
5.2.2 Isometric view of fixed connectors .....	12
5.3 Engagement (mating) information .....	12
5.3.1 Engagement (mating) direction .....	12
5.3.2 Perpendicular to the engaging (mating) direction .....	12
5.3.3 Inclination .....	12
5.4 Free connectors .....	16
5.4.1 Dimensions.....	16
5.4.2 Terminations.....	18
5.5 Fixed connectors.....	13
5.5.1 Dimensions.....	13
5.5.2 Terminations.....	15
5.6 Accessories .....	16
5.7 Mounting information.....	18
5.8 Gauges.....	18
5.8.1 Sizing gauges and retention force gauges .....	18
6 Technical characteristics .....	19
6.1 Classification into climatic categories .....	19
6.2 Electrical characteristics.....	19
6.2.1 Clearance and creepage distance.....	19
6.2.2 Voltage proof .....	19
6.2.3 Contact resistance .....	19
6.2.4 Housing (shell) electrical continuity and shielding effectiveness .....	19
6.2.5 Insulation resistance .....	20
6.2.6 Current-carrying capacity .....	Error! Bookmark not defined.
6.2.7 Electrical load and temperature .....	20

48	6.3	Mechanical characteristics .....	21
49	6.3.1	Mechanical operation .....	21
50	6.3.2	Effectiveness of connector coupling devices .....	21
51	6.3.3	Gauge retention force (resilient contact) .....	21
52	6.3.4	Engaging and separating forces .....	21
53	6.3.5	Contact retention in insert .....	21
54	6.3.6	Polarizing and keying method .....	21
55	6.4	Dynamic stress test .....	22
56	6.4.1	Vibration (sine) .....	22
57	6.4.2	Shock .....	22
58	6.4.3	Free fall (repeated) .....	22
59	6.4.4	IP degree of protection .....	22
60	6.4.5	Glow-wire flammability test method for end-products (GWEPT) .....	22
61	6.5	Climatic test .....	23
62	6.5.1	Damp heat, steady state .....	23
63	6.5.2	Rapid change of temperature .....	23
64	6.5.3	Corrosion, salt mist .....	23
65	6.5.4	Dry heat .....	23
66	6.5.5	Cold .....	23
67	6.5.6	Low air pressure .....	23
68	6.6	Environmental aspects .....	23
69	6.6.1	Marking of insulation material (plastic) .....	23
70	6.6.2	Design/use of material .....	23
71	7	Test schedule .....	24
72	7.1	General .....	24
73	7.2	Test schedules .....	24
74	7.2.1	Basic (minimum) test schedule .....	24
75	7.2.2	Full test schedule .....	24
76	7.3	Test procedures and measurement methods .....	33
77	7.4	Pre-conditioning .....	33
78	7.5	Wiring and mounting of test specimens .....	33
79	7.5.1	Wiring .....	33
80	7.5.2	Mounting .....	33
81			
82		Figure 1 – Free connector .....	12
83		Figure 2 – Fixed connector .....	12
84		Figure 3 – Free connector .....	13
85		Figure 4 – Free connector codings .....	15
86		Figure 5 – Fixed connector .....	16
87		Figure 6 – Fixed connector codings .....	17
88		Figure 7 – Gauge for signal contacts .....	18
89		Figure 8 – Gauge for power contacts .....	19
90		Figure 9 – Current-temperature derating (50 mm <sup>2</sup> wire size) .....	20
91			
92		Table 1 – Climatic category .....	11
93		Table 2 – Free connector dimensions .....	13
94		Table 3.1 – Free connector codings dimensions (codings 1 and 2) .....	15
95		Table 3.2 – Free connector codings dimensions (codings 3 and 4) .....	15

96	Table 4 – Fixed connector dimensions.....	16
97	Table 5.1 – Fixed connector codings dimensions (codings 1 and 2).....	18
98	Table 5.2 – Fixed connector codings dimensions (codings 3 and 4).....	18
99	Table 6 – Gauge dimensions.....	19
100	Table 7 – Voltage proof.....	19
101	Table 8 – Vibration .....	22
102	Table 9 – Number of test specimens .....	24
103	Table 10 – Test group P.....	24
104	Table 11 – Test group AP .....	25
105	Table 12 – Test group BP .....	27
106	Table 13 – Test group CP .....	28
107	Table 14 – Test group DP .....	28
108	Table 15 – Test group EP .....	29
109	Table 16 – Test group GP .....	31
110	Table 17 – Test group HP .....	31
111	Table 18 – Test group JP .....	31
112	Table 19 – Test group KP .....	32
113		

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**CONNECTORS FOR ELECTRICAL AND ELECTRONIC EQUIPMENT –  
PRODUCT REQUIREMENTS****Part 8-107: Power connectors – Detail specification for 2P 200 A, 1 000 V plus  
2P 5 A 50 V rectangular housing shielded connectors with IP65/IP68 degree of  
protection when mated and locked, and IPXXB when unmated**

## FOREWORD

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International Standard IEC 61076-8-107 has been prepared by subcommittee 48B: Electrical connectors, of IEC technical committee 48: Electrical connectors and mechanical structures for electrical and electronic equipment.

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

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

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

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

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC

168 Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document  
169 types developed by IEC are described in greater detail at  
170 [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

171 The committee has decided that the contents of this document will remain unchanged  
172 until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data  
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- 174 • reconfirmed,
- 175 • withdrawn,
- 176 • replaced by a revised edition, or
- 177 • amended.

178

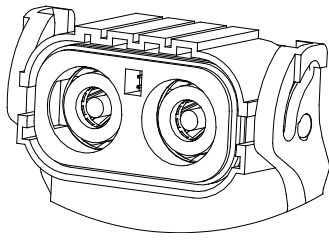
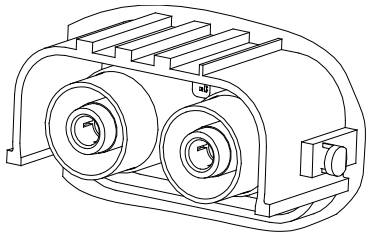
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179

The International Electrotechnical Commission IEC SC 48B — Electrical connectors		IEC 61076-8-107
Detail specification in accordance with IEC 61076-8		
Free connector	 <p>Free connector</p>	<p>For rated current of 200 A DC; 2P power plus 2P signal; Female contacts for power; First break last make male contacts for signal; Straight insertion and withdrawal; 360° shielding; Four codings.</p>
Fixed connector	 <p>Fixed connector</p>	<p>For rated current of 200 A DC; 2P power plus 2P signal; Male contacts for power; Female contacts for signal; Straight insertion and withdrawal; 360° shielding; Four codings.</p>

180

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## CONNECTORS FOR ELECTRICAL AND ELECTRONIC EQUIPMENT– PRODUCT REQUIREMENTS –

### Part 8-107: Power connectors –Detail specification for 2P power plus 2P signal plastic housing rectangular shielded connectors with 200A rated current and IP65/IP68/IPXXB degree of protection

#### 1 Scope

This part of IEC 61076-8 describes free and fixed rectangular connectors with:

- 2P power plus 2P signal contacts;
- plastic housing with locking lever and four possible codings;
- 200 A rated current, 1 000 V DC rated voltage on the power section;
- 5 A rated current, 50 V DC rated voltage on the signal section;
- individual shielding around each power contact with relevant shielding termination;
- IP65/IP68 degree of protection when mated and locked and IPXXB on both plug and receptacle parts when unmated.

hereinafter referred to as a connector, for use in electrical and electronic equipment, including overall dimensions, interface dimensions, technical characteristics, performance requirements and test methods.

Connectors according to this document are intended for use in class II equipment. Hence, they are not equipped with PE contact.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) apply.

IEC 60050-581:2008, *International Electrotechnical Vocabulary – Part 581: Electromechanical components for electronic equipment*

IEC 60068-1, *Environmental testing – Part 1: General and guidance*

IEC 60228:2004, *Conductors of insulated cables*

IEC 60352-1, *Solderless connections – Part 1: Wrapped connections – General requirements, test methods and practical guidance*

IEC 60352-2, *Solderless connections – Part 2: Crimped connections – General requirements, test methods and practical guidance*

IEC 60352-3, *Solderless connections – Part 3: Solderless accessible insulation displacement connections – General requirements, test methods and practical guidance*

IEC 60352-4, *Solderless connections – Part 4: Solderless non-accessible insulation displacement connections – General requirements, test methods and practical guidance*

IEC 60352-5, *Solderless connections – Part 5: Press-in connections – General requirements, test methods and practical guidance*

- 222 IEC 60352-6, *Solderless connections – Part 6: Insulation piercing connections – General*  
 223 *requirements, test methods and practical guidance*
- 224 IEC 60352-7, *Solderless connections – Part 7: Spring clamp connections – General*  
 225 *requirements, test methods and practical guidance*
- 226 IEC 60512-1-2, *Connectors for electronic equipment – Test and measurements – Part 1-2:*  
 227 *General examination – Test 1b: Examination of dimension and mass*
- 228 IEC 60512-2-1, *Connectors for electronic equipment – Tests and measurements – Part 2-1:*  
 229 *Electrical continuity and contact resistance tests – Test 2a: Contact resistance – Millivolt level*  
 230 *method*
- 231 IEC 60512-2-6, *Connectors for electronic equipment – Tests and measurements – Part 2-6:*  
 232 *Electrical continuity and contact resistance tests – Test 2f: Housing (shell) electrical continuity*
- 233 IEC 60512-3-1, *Connectors for electronic equipment – Tests and measurements – Part 3-1:*  
 234 *Insulation tests – Test 3a: Insulation resistance*
- 235 IEC 60512-4-1, *Connectors for electronic equipment – Tests and measurements – Part 4-1:*  
 236 *Voltage stress tests – Test 4a: Voltage proof*
- 237 IEC 60512-5-2, *Connectors for electronic equipment – Tests and measurements – Part 5-2:*  
 238 *Current-carrying capacity tests – Test 5b: Current-temperature derating*
- 239 IEC 60512-6-3, *Connectors for electronic equipment – Tests and measurements – Part 6-3:*  
 240 *Dynamic stress tests – Test 6c: Shock*
- 241 IEC 60512-6-4, *Connectors for electronic equipment – Tests and measurements – Part 6-4:*  
 242 *Dynamic stress tests – Test 6d: Vibration (sinusoidal)*
- 243 IEC 60512-7-1, *Connectors for electronic equipment – Tests and measurements – Part 7-1:*  
 244 *Impact tests (free connectors) – Test 7a: Free fall (repeated)*
- 245 IEC 60512-9-1, *Connectors for electronic equipment – Tests and measurements – Part 9-1:*  
 246 *Endurance tests – Test 9a: Mechanical operation*
- 247 IEC 60512-9-2, *Connectors for electronic equipment – Tests and measurements – Part 9-2:*  
 248 *Endurance tests – Test 9b: Electrical load and temperature*
- 249 IEC 60512-11-3, *Connectors for electronic equipment – Tests and measurements – Part 11-3:*  
 250 *Climatic tests – Test 11c: Damp heat, steady state*
- 251 IEC 60512-11-4, *Connectors for electronic equipment – Tests and measurements – Part 11-4:*  
 252 *Climatic tests – Test 11d: Rapid change of temperature*
- 253 IEC 60512-11-6, *Connectors for electronic equipment – Tests and measurements – Part 11-6:*  
 254 *Climatic tests – Test 11f: Corrosion, salt mist*
- 255 IEC 60512-11-9, *Connectors for electronic equipment – Tests and measurements – Part 11-9:*  
 256 *Climatic tests – Test 11i: Dry heat*
- 257 IEC 60512-11-10, *Connectors for electronic equipment – Tests and measurements – Part 11-*  
 258 *10: Climatic tests – Test 11j: Cold*
- 259 IEC 60512-11-11, *Connectors for electronic equipment – Tests and measurements – Part 11-*  
 260 *11: Climatic tests – Test 11k: Low air pressure*
- 261 IEC 60512-13-1, *Connectors for electronic equipment – Tests and measurements – Part 13-1:*  
 262 *Mechanical operation tests – Test 13a: Engaging and separating forces*
- 263 IEC 60512-13-5, *Connectors for electronic equipment – Tests and measurements – Part 13-5:*  
 264 *Mechanical operation tests – Test 13e: Polarizing and keying method*

IEC 60512-15-1, *Connectors for electronic equipment – Tests and measurements – Part 15-1: Connector tests (mechanical) – Test 15a: Contact retention in insert*

IEC 60512-15-6, *Connectors for electronic equipment – Tests and measurements – Part 15-6: Connector tests (mechanical) – Test 15f: Effectiveness of connector coupling devices*

IEC 60512-16-5, *Connectors for electronic equipment – Tests and measurements – Part 16-5: Mechanical tests on contacts and terminations – Test 16e: Gauge retention force (resilient contacts)*

IEC 60529:1989+AMD1:1999+AMD2:2013, *Degrees of protection provided by enclosures (IP code)*

IEC 60695-2-11:2014, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products (GWEPT)*

IEC 60999-1, *Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units – Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm<sup>2</sup> up to 35 mm<sup>2</sup> (included)*

IEC 60999-2, *Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units – Part 2: Particular requirements for clamping units for conductors above 35 mm<sup>2</sup> up to 300 mm<sup>2</sup> (included)*

IEC 61076-1:2006, *Connectors for electronic equipment – Part 1: Generic specification*

IEC 61984, *Connectors – Safety requirements and tests*

IEC Guide 109, *Environmental aspects – Inclusion in electrotechnical product standards*

IEC 62430:2009, *Environmentally conscious design for electrical and electronic products*

ISO 1302:2002, *Geometrical Product Specifications (GPS) – Indication of surface texture in technical product documentation*

ISO 6508-1:2015, *Metallic materials – Rockwell hardness test – Part 1: Test method*

ISO 11469:2000, *Plastics – Generic identification and marking of plastic products*

### **3 Terms and definitions**

For the purposes of this document, the terms and definitions given in IEC 60050-581 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

## **4 Technical information**

### **4.1 Recommended method of termination**

#### **4.1.1 General**

According to IEC 60352 series, IEC 60999-1 or IEC 60999-2.

#### **4.1.2 Number of contacts and contact cavities**

Number of contacts: power contacts: 2, shielding contacts: 2 (surrounding each power contact), signal contacts: 2.

Number of contact cavities (for removable contacts): 4.