



BSI Standards Publication

Connectors for electrical and electronic equipment — Product requirements

Part 8-100: Power connectors — Detail specification for 2-pole or 3-pole power plus 2-pole signal shielded and sealed connectors with plastic housing for rated current of 20 A

National foreword

This British Standard is the UK implementation of EN IEC 61076-8-100:2020. It is identical to IEC 61076-8-100:2020.

The UK participation in its preparation was entrusted to Technical Committee EPL/48, Electromechanical components and mechanical structures for electronic equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Published by BSI Standards Limited 2020

ISBN 978 0 580 96648 4

ICS 31.220.10

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 June 2020.

Amendments/corrigenda issued since publication

Date	Text affected
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English Version

Connectors for electrical and electronic equipment - Product requirements - Part 8-100: Power connectors - Detail specification for 2-pole or 3-pole power plus 2-pole signal shielded and sealed connectors with plastic housing for rated current of 20 A
(IEC 61076-8-100:2020)

Connecteurs pour équipements électriques et électroniques
- Exigences de produit - Partie 8-100: Connecteurs électriques - Spécification particulière pour connecteurs blindés étanches à 2 pôles ou 3 pôles pour la transmission de puissance et à 2 pôles pour la transmission de données avec boîtier plastique pour courant assigné de 20 A
(IEC 61076-8-100:2020)

Steckverbinder für elektronische Einrichtungen -
Produktanforderungen - Teil 8-101:
Leistungssteckverbinder - Bauartspezifikation für gasdichte geschirmte Steckverbinder mit Kunststoffgehäuse mit 2P/3P Leistung plus 2P Signal für 20 A Bemessungsstrom
(IEC 61076-8-100:2020)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 48B/2782/FDIS, future edition 1 of IEC 61076-8-100, prepared by SC 48B "Electrical connectors" of IEC/TC 48 "Electrical connectors and mechanical structures for electrical and electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61076-8-100:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-02-14
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-05-14

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The text of the International Standard IEC 61076-8-100:2020 was approved by CENELEC as a European Standard without any modification.

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

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) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-581	2008	International Electrotechnical Vocabulary - Part 581: Electromechanical components for electronic equipment	-	-
IEC 60068-1	-	Environmental testing - Part 1: General and guidance	EN 60068-1	-
IEC 60228	2004	Conductors of insulated cables	EN 60228 + corrigendum	2005 2005-05
IEC 60352-1	-	Solderless connections - Part 1: Wrapped connections - General requirements, test methods and practical guidance	EN 60352-1	-
IEC 60352-2	-	Solderless connections - Part 2: Crimped connections - General requirements, test methods and practical guidance	EN 60352-2	-
IEC 60352-3	-	Solderless connections - Part 3: Accessible insulation displacement (ID) connections - General requirements, test methods and practical guidance	-	-
IEC 60352-4	-	Solderless connections - Part 4: Non-accessible insulation displacement (ID) 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	-	-
IEC 60352-6	-	Solderless connections - Part 6: Insulation piercing connections - General requirements, test methods and practical guidance	-	-

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IEC 60352-7	- Solderless connections - Part 7: Spring clamp connections - General requirements, test methods and practical guidance	-	-
IEC 60512-1-1	- Connectors for electronic equipment - Tests and measurements - Part 1-1: General examination - Test 1a: Visual examination	EN 60512-1-1	-
IEC 60512-1-2	- Connectors for electronic equipment - Tests and measurements - Part 1-2: General examination - Test 1b: Examination of dimension and mass	EN 60512-1-2	-
IEC 60512-2-1	- Connectors for electronic equipment - Tests and measurements - Part 2-1: Electrical continuity and contact resistance tests - Test 2a: Contact resistance - Millivolt level method	EN 60512-2-1	-
IEC 60512-2-2	- Connectors for electronic equipment - Tests and measurements - Part 2-2: Electrical continuity and contact resistance tests - Test 2b: Contact resistance - Specified test current method	EN 60512-2-2	-
IEC 60512-2-5	- Connectors for electronic equipment - Tests and measurements - Part 2-5: Electrical continuity and contact resistance tests - Test 2e: Contact disturbance	EN 60512-2-5	-
IEC 60512-2-6	- Connectors for electronic equipment - Tests and measurements - Part 2-6: Electrical continuity and contact resistance tests - Test 2f: Housing (shell) electrical continuity	EN 60512-2-6	-
IEC 60512-3-1	- Connectors for electronic equipment - Tests and measurements - Part 3-1: Insulation tests - Test 3a: Insulation resistance	EN 60512-3-1	-
IEC 60512-4-1	- Connectors for electronic equipment - Tests and measurements - Part 4-1: Voltage stress tests - Test 4a: Voltage proof	EN 60512-4-1	-
IEC 60512-5-1	- Connectors for electronic equipment - Tests and measurements - Part 5-1: Current-carrying capacity tests - Test 5a: Temperature rise	EN 60512-5-1	-
IEC 60512-5-2	- Connectors for electronic equipment - Tests and measurements - Part 5-2: Current-carrying capacity tests - Test 5b: Current-temperature derating	EN 60512-5-2	-
IEC 60512-6-3	- Connectors for electronic equipment - Tests and measurements - Part 6-3: Dynamic stress tests - Test 6c: Shock	EN 60512-6-3	-
IEC 60512-6-4	- Connectors for electronic equipment - Tests and measurements - Part 6-4: Dynamic stress tests - Test 6d: Vibration (sinusoidal)	EN 60512-6-4	-

IEC 60512-7-1	-	Connectors for electronic equipment - Tests and measurements - Part 7-1: Impact tests (free connectors) - Test 7a: Free fall (repeated)	EN 60512-7-1	-
IEC 60512-9-1	-	Connectors for electronic equipment - Tests and measurements - Part 9-1: Endurance tests - Test 9a: Mechanical operation	EN 60512-9-1	-
IEC 60512-9-2	-	Connectors for electronic equipment - Tests and measurements - Part 9-2: Endurance tests - Test 9b: Electrical load and temperature	EN 60512-9-2	-
IEC 60512-11-1	-	Connectors for electrical and electronic equipment - Tests and measurements - Part 11-1: Climatic tests - Test 11a - Climatic sequence	EN IEC 60512-11-1	-
IEC 60512-11-3	-	Connectors for electronic equipment - Tests and measurements - Part 11-3: Climatic tests - Test 11c: Damp heat, steady state	EN 60512-11-3	-
IEC 60512-11-4	-	Connectors for electronic equipment - Tests and measurements - Part 11-4: Climatic tests - Test 11d: Rapid change of temperature	EN 60512-11-4	-
IEC 60512-11-6	-	Connectors for electronic equipment - Tests and measurements - Part 11-6: Climatic tests - Test 11f: Corrosion, salt mist	EN 60512-11-6	-
IEC 60512-11-9	-	Connectors for electronic equipment - Tests and measurements - Part 11-9: Climatic tests - Test 11i: Dry heat	EN 60512-11-9	-
IEC 60512-11-10	-	Connectors for electronic equipment - Tests and measurements - Part 11-10: Climatic tests - Test 11j: Cold	EN 60512-11-10	-
IEC 60512-11-11	-	Connectors for electronic equipment - Tests and measurements - Part 11-11: Climatic tests - Test 11k: Low air pressure	EN 60512-11-11	-
IEC 60512-11-12	-	Connectors for electronic equipment - Tests and measurements - Part 11-12: Climatic tests - Test 11m: Damp heat, cyclic	EN 60512-11-12	-
IEC 60512-13-1	-	Connectors for electronic equipment - Tests and measurements - Part 13-1: Mechanical operation tests - Test 13a: Engaging and separating forces	EN 60512-13-1	-
IEC 60512-13-5	-	Connectors for electronic equipment - Tests and measurements - Part 13-5: Mechanical operation tests - Test 13e: Polarizing and keying method	EN 60512-13-5	-

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IEC 60512-15-1	-	Connectors for electronic equipment - Tests and measurements - Part 15-1: Connector tests (mechanical) - Test 15a: Contact retention in insert	EN 60512-15-1	-
IEC 60512-15-6	-	Connectors for electronic equipment - Tests and measurements - Part 15-6: Connector tests (mechanical) - Test 15f: Effectiveness of connector coupling devices	EN 60512-15-6	-
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)	EN 60512-16-5	-
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
			+ corrigendum	1993-05
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)	EN 60695-2-11	2014
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 ² up to 35 mm ² (included)	EN 60999-1	-
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 ² up to 300 mm ² (included)	EN 60999-2	-
IEC 61076-1	2006	Connectors for electronic equipment - Product requirements - Part 1: Generic specification	EN 61076-1	2006
IEC 61984	2008	Connectors - Safety requirements and tests	EN 61984	2009
IEC 62430	2019	Environmentally conscious design (ECD) - Principles, requirements and guidance	EN IEC 62430	2019
IEC Guide 109	-	Environmental aspects - Inclusion in electrotechnical product standards	-	-
ISO 1302	2002	Geometrical Product Specifications (GPS) - Indication of surface texture in technical product documentation	EN ISO 1302	2002
ISO 6508-1	2015	Metallic materials - Rockwell hardness test - Part 1: Test method	-	-
ISO 11469	2016	Plastics - Generic identification and marking of plastics products	EN ISO 11469	2016

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**CONNECTORS FOR ELECTRICAL AND ELECTRONIC EQUIPMENT –
PRODUCT REQUIREMENTS –****Part 8-100: Power connectors – Detail specification for 2-pole or 3-pole
power plus 2-pole signal shielded and sealed connectors with plastic
housing for rated current of 20 A**

FOREWORD

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International Standard IEC 61076-8-100 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 standard is based on the following documents:

FDIS	Report on voting
48B/2782/FDIS	48B/2798/RVD

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

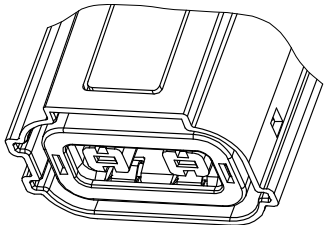
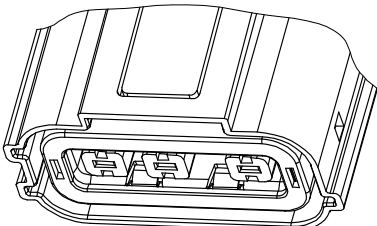
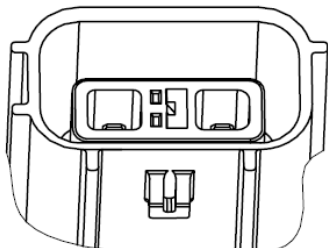
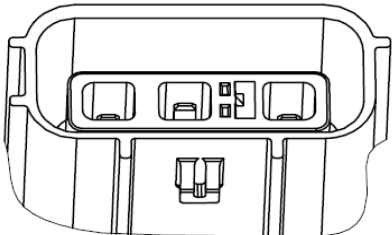
This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61076 series, published under the general title *Connectors for electrical and electronic equipment – Product requirements*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

The committee has decided that the contents of this publication will remain unchanged until the stability 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
- amended.

The International Electrotechnical Commission IEC SC 48B – Electrical connectors		IEC 61076-8-100
Detail specification in accordance with IEC 61076-1		
Free connector	 <p>2-pole 20 A free connector</p>	<p>For rated current of 20 A d.c.;</p> <p>2-pole;</p> <p>Female contacts for power;</p> <p>First break last make male contacts for signal;</p> <p>Straight insertion and withdrawal;</p> <p>360° shielding;</p> <p>Four codings.</p>
	 <p>3-pole 20 A free connector</p>	<p>For rated current of 20 A a.c.;</p> <p>3-pole;</p> <p>Female contacts for power;</p> <p>First break last make male contacts for signal;</p> <p>Straight insertion and withdrawal;</p> <p>360° shielding;</p> <p>Four codings.</p>
Fixed connector	 <p>2-pole 20 A fixed connector</p>	<p>For rated current of 20 A d.c.;</p> <p>2-pole;</p> <p>Female contacts for signal;</p> <p>Male contacts for power;</p> <p>Straight insertion and withdrawal;</p> <p>360°shielding;</p> <p>Four codings.</p>
	 <p>3-pole 20 A fixed connector</p>	<p>For rated current of 20 A a.c.;</p> <p>3-pole;</p> <p>Female contacts for signal;</p> <p>Male contacts for power;</p> <p>Straight insertion and withdrawal;</p> <p>360°shielding;</p> <p>Four codings.</p>