Connectors for electrical and electronic equipment -Product requirements - Part 2-111: Circular connectors - Detail specification for power connectors with M12 screw-locking



#### EESTI STANDARDI EESSÕNA

#### NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 61076-2-111:2018 sisaldab Euroopa standardi EN IEC 61076-2-111:2018 ingliskeelset teksti.	
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 09.03.2018.	Date of Availability of the European standard is 09.03.2018.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN IEC 61076-2-111

March 2018

ICS 31.220

#### **English Version**

Connectors for electrical and electronic equipment - Product requirements - Part 2-111: Circular connectors - Detail specification for power connectors with M12 screw-locking (IEC 61076-2-111:2017)

Connecteurs pour équipements électriques et électroniques - Exigences de produit - Partie 2-111 : Connecteurs circulaires - Spécification particulière pour les connecteurs d'alimentation à vis M12 (IEC 61076-2-111:2017) Steckverbinder für elektronische Einrichtungen -Produktanforderungen - Teil 2-111: Rundsteckverbinder -Bauartspezifikation für Leistungs-Steckverbinder mit Schraubverriegelung M12 (IEC 61076-2-111:2017)

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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/2601/FDIS, future edition 1 of IEC 61076-2-111, prepared by IEC/TC 48B "Electrical connectors, of IEC technical committee 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 61076-2-111:2018.

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)	2018-10-11
•	latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2021-01-11

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#### **Endorsement notice**

The text of the International Standard IEC 61076-2-111:2017 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>	EN/HD	<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 60068-2-60	-	Environmental testing Part 2-60: Tests - Test Ke: Flowing mixed gas corrosion test	EN 60068-2-60	-
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: Solderless accessible insulation displacement connections - General requirements, test methods and practical guidance	EN 60352-3	-
IEC 60352-4	-	Solderless connections Part 4: Solderless non-accessible insulation displacement connections - General requirements, test methods and practical guidance	EN 60352-4	-
IEC 60352-5	-	Solderless connections Part 5: Press-in connections - General requirements, test methods and practical guidance	EN 60352-5	-
IEC 60352-6	-	Solderless connections Part 6: Insulation piercing connections - General requirements, test methods and practical guidance	EN 60352-6	-
IEC 60352-7	-	Solderless connections Part 7: Spring clamp connections - General requirements test methods and practical guidance	EN 60352-7	-
IEC 60512-1-1	-	Connectors for electronic equipment - Tests and measurements Part 1-1: General examination - Test 1a: Visual examination	EN 60512-1-1	7

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 60512-3-1	<u>-</u>	Connectors for electronic equipment - Tests and measurements Part 3-1: Insulation tests - Test 3a: Insulation resistance	EN 60512-3-1	-
IEC 60512-4-1	3	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 60512-6-3	-	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 60512-9-1	-	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	-	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods Par 11: Climatic tests Section 1: Test 11a - Climatic sequence	EN 60512-11-1 t	-
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 60512-11-7	-	Connectors for electronic equipment - Tests and measurements Part 11- 7: Climatic tests - Test 11g: Flowing mixed gas corrosion test	EN 60512-11-7	2
IEC 60512-11-9	-	Connectors for electronic equipment - Tests and measurements Part 11-9: Climatic tests - Test 11i: Dry heat	EN 60512-11-9	<u>-</u> (

IEC 60512-11-10	-	Connectors for electronic equipment - Tests and measurements Part 11-10: Climatic tests - Test 11j: Cold	EN 60512-11-10	-
IEC 60512-11-12	-	Connectors for electronic equipment - Tests and measurements Part 11-12: Climatic tests - Test 11m: Damp heat, cyclic	EN 60512-11-12	-
IEC 60512-13-2	-	Connectors for electronic equipment - Tests and measurements Part 13-2: Mechanical operating tests - Test 13b: Insertion and withdrawal forces	EN 60512-13-2	-
IEC 60512-13-5	2	Connectors for electronic equipment - Tests and measurements Part 13-5: Mechanical operating tests - Test 13e: Polarizing and keying method	EN 60512-13-5	-
IEC 60512-16-5	- 7	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 60512-19-3	-	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods Part 19: Chemical resistance tests Section 3: Test 19c - Fluid resistance	EN 60512-19-3 t	-
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
			+ corrigondum May	1003
-	-		+ corrigendum May	1995
- + A1	1999		+ A1	2000
+ A1 + A2	1999 2013			
		Insulation coordination for equipment within low-voltage systems Part 1: Principles, requirements and tests	+ A1	2000
+ A2		within low-voltage systems Part 1:	+ A1 + A2	2000
+ A2 IEC 60664-1		within low-voltage systems Part 1: Principles, requirements and tests  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 mm² up to 35 mm²	+ A1 + A2 EN 60664-1	2000
+ A2 IEC 60664-1 IEC 60999-1	2013	within low-voltage systems Part 1: Principles, requirements and tests  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 mm² up to 35 mm² (included)  Connectors for electronic equipment - Product requirements Part 1: Generic	+ A1 + A2 EN 60664-1 EN 60999-1	2000 2013 -
+ A2 IEC 60664-1 IEC 60999-1	2013	within low-voltage systems Part 1: Principles, requirements and tests  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 mm² up to 35 mm² (included)  Connectors for electronic equipment - Product requirements Part 1: Generic specification  Connectors - Safety requirements and	+ A1 + A2 EN 60664-1 EN 60999-1 EN 61076-1 EN 61984 EN 62197-1	2000 2013 -

This document is a province of a series of the series of t ISO 11469 Plastics - Generic identification and EN ISO 11469 marking of plastics products

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