Modular order for the development of mechanical structures for electronic equipment practices - Part 1: Generic standard

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 60917-1:2019 sisaldab Euroopa standardi EN IEC 60917-1:2019 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 60917-1:2019 consists of the English text of the European standard EN IEC 60917-1:2019.
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 08.11.2019.	Date of Availability of the European standard is 08.11.2019.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 31.240

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60917-1

November 2019

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Supersedes EN 60917-1:1998 and all of its amendments and corrigenda (if any)

English Version

Modular order for the development of mechanical structures for electrical and electronic equipment practices - Part 1: Generic standard (IEC 60917-1:2019)

Ordre modulaire pour le développement des structures mécaniques pour les infrastructures électriques et électroniques - Partie 1: Norme générique (IEC 60917-1:2019)

Modulordnung für die Entwicklung von Bauweisen für elektrische und elektronische Einrichtungen - Teil 1: Fachgrundnorm (IEC 60917-1:2019)

This European Standard was approved by CENELEC on 2019-10-18. 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 CEN-CENELEC Management Centre or to any CENELEC member.

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 CEN-CENELEC Management Centre has the same status as the official versions.

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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

Ref. No. EN IEC 60917-1:2019 E

European foreword

The text of document 48D/703/FDIS, future edition 2 of IEC 60917-1, prepared by SC 48D "Mechanical structures for electrical and electronic equipment" 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 60917-1:2019.

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)	2020-07-18
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2022-10-18

This document supersedes EN 60917-1:1998 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 60917-1:2019 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.

Publication	Year	Title	EN/HD	Year
IEC 60050-581	-	International Electrotechnical Vocabulary - Part 581: Electromechanical components for electronic equipment	-	-
IEC 60297	series	Dimensions of mechanical structures of the 482,6 mm (19 in) series	-	-
IEC 60297-3-100	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-100: Basic dimensions of front panels, subracks, chassis, racks and cabinets	EN 60297-3-100	-
IEC 60297-3-101	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-101: Subracks and associated plug-in units	EN 60297-3-101	-
IEC 60297-3-102	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-102: Injector/extractor handle	EN 60297-3-102	-
IEC 60297-3-103	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-103: Keying and alignment pin	EN 60297-3-103	-
IEC 60297-3-104	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-104: Connector dependent interface dimensions of subracks and plug-in units	EN 60297-3-104	-

Publication	Year	Title	EN/HD	Year
IEC 60297-3-105	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-105: Dimensions and design aspects for 1U high chassis	EN 60297-3-105	-
IEC 60297-3-106	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-106: Adaptation dimensions for subracks and chassis applicable with metric cabinets or racks in accordance with IEC 60917-2-1	EN 60297-3-106	-
IEC 60297-3-107	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-107: Dimensions of subracks and plug-in units, small form factor	EN 60297-3-107	-
IEC 60297-3-108	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-108: Dimensions of R-type subracks and plug-in units	EN 60297-3-108	-
IEC 60297-3-109	-	Mechanical structures for electrical and electronic equipment – Dimensions of mechanical structures of the 482,6 mm (19 in) series – Part 3-109: Dimensions of chassis for embedded computing devices	EN 60297-3-109	-
IEC 60297-3-110	-	Mechanical structures for electrical and electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-110: Residential racks and cabinets for smart houses	EN IEC 60297-3-110	-
IEC/TR 60668	-	Dimensions of panel areas and cut-outs for panel and rack-mounted industrial-process measurement and control instruments	-	-
IEC 60917-2	-	Modular order for the development of mechanical structures for electronic equipment practices - Part 2: Sectional specification - Interface co-ordination dimensions for the 25 mm equipment practice	EN 60917-2	-
IEC 60917-2-1	-	Modular order for the development of mechanical structures for electronic equipment practices - Part 2: Sectional specification - Interface co-ordination dimensions for the 25 mm equipment practice - Section 1: Detail specification - Dimensions for cabinets and racks	EN 60917-2-1	-

Publication	Year	Title	EN/HD	Year
IEC 60917-2-2	-	Modular order for the development of mechanical structures for electronic equipment practices - Part 2: Sectional specification - Interface co-ordination dimensions for the 25 mm equipment practice - Section 2: Detail specification - Dimensions for subracks, chassis, backplanes, front panels and plug-in units	EN 60917-2-2	-
IEC 60917-2-3	-	Modular order for the development of mechanical structures for electronic equipment practices - Part 2-3: Sectional specification - Interface co-ordination dimensions for the 25 mm equipment practice - Extended detail specification - Dimensions for subracks, chassis, backplanes, front panels and plug-in units	EN 60917-2-3	-
IEC 60917-2-4	-	Modular order for the development of mechanical structures for electronic equipment practices - Part 2-4: Sectional specification - Interface co-ordination dimensions for the 25 mm equipment practice - Adaptation dimensions for subracks or chassis applicable in cabinets or racks in accordance with IEC 60297-3-100 (19 in)	EN 60917-2-4	-
IEC 60917-2-5	-	Modular order for the development of mechanical structures for electronic equipment practices - Part 2-5: Sectional specification - Interface co-ordination dimensions for the 25 mm equipment practice - Cabinet interface dimensions for miscellaneous equipment	EN 60917-2-5	-
IEC 61554	-	Panel mounted equipment - Electrical measuring instruments - Dimensions for panel mounting	-	-
IEC 61587	series	Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 series	EN 61587	series
IEC 61969-1	-	Mechanical structures for electronic equipment - Outdoor enclosures - Part 1: Design guidelines	EN 61969-1	-
IEC 61969-2	-	Mechanical structures for electronic equipment - Outdoor enclosures - Part 2: Coordination dimensions	EN 61969-2	-
IEC 61969-3	-	Mechanical structures for electronic equipment - Outdoor enclosures - Part 3: Environmental requirements, tests and safety aspects	EN 61969-3	-
IEC 62194	-	Method of evaluating the thermal performance of enclosures	EN 62194	-

Publication	Year	Title	EN/HD	Year
IEC/TS 62454	-	Mechanical structures for electronic equipment - Design guide: Interface dimensions and provisions for water cooling of electronic equipment within cabinets of the IEC 60297 and IEC 60917 series	-	-
IEC 62610	series	Mechanical structures for electrical and electronic equipment – Thermal management for cabinets in accordance with IEC 60297 and IEC 60917 series	EN 62610	series
IEC Guide 103	1980	Guide on dimensional co-ordination	-	-
ISO 1006	-	Building construction; Modular coordination; Basic module	-	-
ISO 1040	-	Building construction - Modular coordination - Multimodules for horizontal coordinating dimensions	-	-
ISO 1791	-	Building construction - Modular co-ordination - Vocabulary	-	-
ISO 2848	-	Building construction - Modular coordination - Principles and rules	-	-
ISO 3394	-	Dimensions of rigid rectangular packages; Transport packages	-	-
ISO 3676	-		-	-
ISO 6514	-	Building construction - Modular coordination - Sub-modular increments	-	-
ISO 80000-1	2009	Quantities and units -- Part 1: General	EN ISO 80000-1	2013
ISO 80000-3	2006	Quantities and units -- Part 3: Space and time	EN ISO 80000-3	2013

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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MODULAR ORDER FOR THE DEVELOPMENT OF MECHANICAL STRUCTURES FOR ELECTRICAL AND ELECTRONIC EQUIPMENT PRACTICES –

Part 1: Generic standard

FOREWORD

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International Standard IEC 60917-1 has been prepared by subcommittee 48D: Mechanical structures for electrical and electronic equipment, of IEC technical committee 48: Electrical connectors and mechanical structures for electrical and electronic equipment.

This second edition cancels and replaces the first edition published in 1998 and its Amendment 1:2000. This edition constitutes a technical revision.

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

a) added information on newly developed detail specification standards of mechanical structures for the electrical and electronic equipment practices;
b) added information on newly developed performance test standards for the verifications of environmental performances and safety aspects and issues of the thermal performance and thermal management for the electrical and electronic equipment practices;

c) introduced the relations between the mechanical structure for electrical and electronic system, the verification of environmental performance and safety aspects and issues of the thermal performance and thermal management for the electrical and electronic equipment practices.

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

FDIS	Report on voting
48D/703/FDIS	48D/708/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.

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.

A list of all parts in the IEC 60917 series, published under the general title *Modular order for the development of mechanical structures for electrical and electronic equipment practices*, can be found on the IEC website.

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.