

**Mechanical structures for electronic equipment -  
Dimensions of mechanical structures of the 482,6  
mm (19 in) series Part 3-102: Injector/extractor  
handle**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 60297-3-102:2004 sisaldab Euroopa standardi EN 60297-3-102:2004 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 16.11.2004 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 17.09.2004.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 60297-3-102:2004 consists of the English text of the European standard EN 60297-3-102:2004.

This standard is ratified with the order of Estonian Centre for Standardisation dated 16.11.2004 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 17.09.2004.

The standard is available from Estonian standardisation organisation.

ICS 31.240

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English version

**Mechanical structures for electronic equipment -  
Dimensions of mechanical structures of the 482,6 mm (19 in) series  
Part 3-102: Injector/extractor handle  
(IEC 60297-3-102:2004)**

Structures mécaniques  
pour équipement électronique -  
Dimensions des structures mécaniques  
de la série de 482,6 mm (19 in)  
Partie 3-102: Poignée  
d'injecteur/d'extracteur  
(CEI 60297-3-102:2004)

Bauweisen für elektronische  
Einrichtungen -  
Maße der 482,6-mm-(19-in-)Bauweise  
Teil 3-102: Ein-/Aushebegriff  
(IEC 60297-3-102:2004)

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 48D/300/FDIS, future edition 1 of IEC 60297-3-102, prepared by SC 48D, Mechanical structures for electronic equipment, of IEC TC 48, Electromechanical components and mechanical structures for electronic equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60297-3-102 on 2004-09-01.

This European Standard supersedes EN 60297-4:1995 + A1:1999 and EN 60297-5-101:2001.

The following dates were fixed:

- |  |       |            |
|--|-------|------------|
| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2005-06-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn   | (dow) | 2007-09-01 |

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 60297-3-102:2004 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60297-3-101	- <sup>1)</sup>	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	2004 <sup>2)</sup>
IEC 60917-1	1998	Modular order for the development of mechanical structures for electronic equipment practices Part 1: Generic standard	EN 60917-1	1998

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<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

# INTERNATIONAL STANDARD

**IEC**  
**60297-3-102**

First edition  
2004-08

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**Mechanical structures for electronic equipment –  
Dimensions of mechanical structures  
of the 482,6 mm (19 in) series –**

**Part 3-102:  
Injector/extractor handle**



Reference number  
IEC 60297-3-102:2004(E)

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# INTERNATIONAL STANDARD

**IEC**  
**60297-3-102**

First edition  
2004-08

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## **Mechanical structures for electronic equipment – Dimensions of mechanical structures of the 482,6 mm (19 in) series –**

### **Part 3-102: Injector/extractor handle**

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International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland  
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: [inmail@iec.ch](mailto:inmail@iec.ch) Web: [www.iec.ch](http://www.iec.ch)



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

# MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENT – DIMENSIONS OF MECHANICAL STRUCTURES OF THE 482,6 mm (19 in) SERIES –

## Part 3-102: Injector/extractor handle

### FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60297-3-102 has been prepared by subcommittee 48D: Mechanical structures for electronic equipment, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

This standard cancels and replaces IEC 60297-4, its amendment 1 (1999) and IEC 60297-5-101.

The text of this standard is based on following documents:

FDIS	Report on voting
48D/300/FDIS	48D/307/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.

The IEC 60297-3 series consists of the following parts, under the general title *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

Part 3-102: Injector/extractor handle

Part 3-103: Keying and alignment pin

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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.

A bilingual edition of this standard may be issued at a later date.

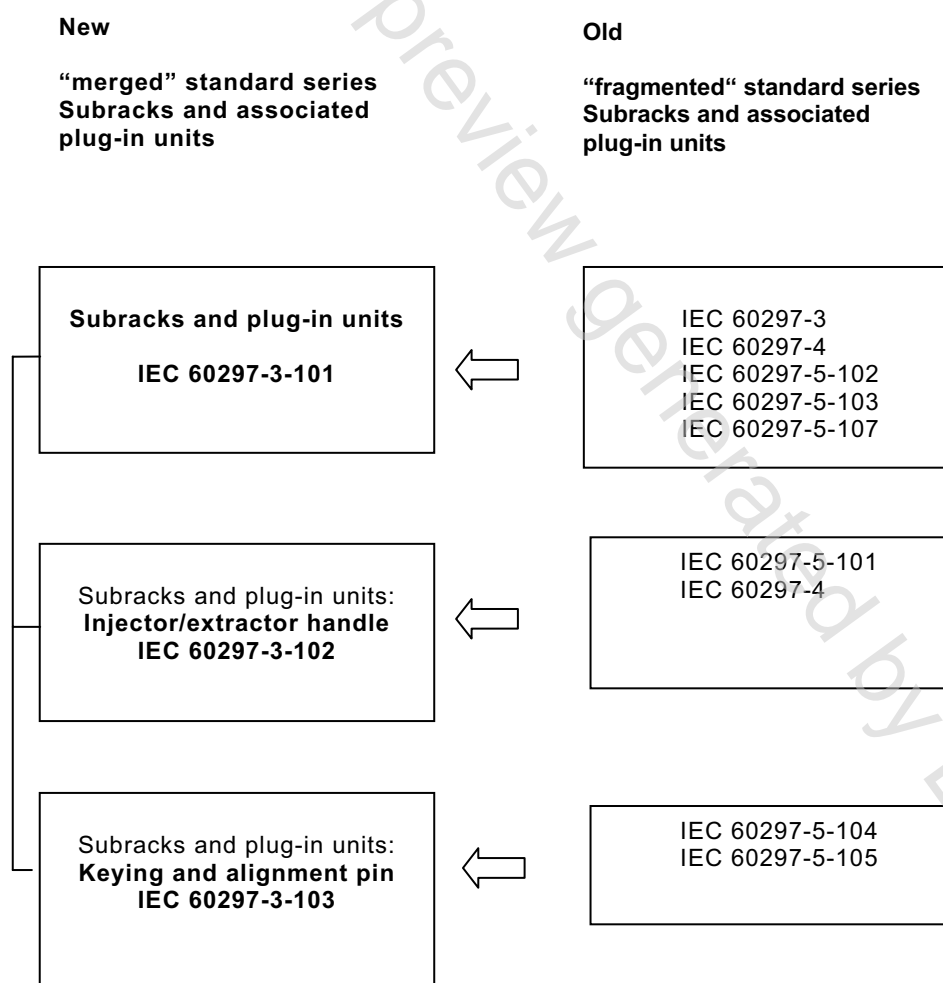
## INTRODUCTION

The “Dimensions of mechanical structures of the 482,6 mm (19 in) standards are defined in IEC 60297. To the original IEC 60297-3:1988 publication was added Amendment 1:1995. The additional requirements were published in IEC 60297-4:1995 with Amendment 1:1999.

The extended requirements were published in the IEC 60297-5-1XX series (2001). Responding to market requirements and for more clarity it became necessary to merge and technically enhance these standard “parts” into 3 “new” standards for subracks and associated plug-in units. This “merged” standard series now defined as IEC 60297-3-101, IEC 60297-3-102 and IEC 60297-3-103 explains its relationship to the previous “fragmented” IEC 60297-X standards, see Figure 1.

The nomenclature of these new standards has been revised. The relationship to IEC 60297-1 (Part 1: Panels and Racks) has been maintained. The relationship to IEC 60297-2 (Part 2: Cabinets and pitches of rack structures) has been maintained. The relationship to IEC 61587-1 (Part 1: Climatic, mechanical tests and safety aspects for cabinets, racks, subracks and chassis) and IEC TS 61587-3 (Part 3: Electromagnetic shielding performance tests for cabinets, racks and subracks) has been added.

IEC 60297-3-102 defines only the interface dimensions for plug-in units injector/extractor devices which are additional to those defined in IEC 60297-3-101.



IEC 1089/04

**Figure 1 – Relationship between the new IEC 60297-3 series and the old IEC 60297 series**

**MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENT –  
DIMENSIONS OF MECHANICAL STRUCTURES  
OF THE 482,6 mm (19 in) SERIES –**

**Part 3-102: Injector/extractor handle**

**1 Scope and object**

This part of IEC 60297 covers only the additional interface dimensions for injector/extractor devices used with subracks and plug-in units according to IEC 60297-3-101. This standard may also be used in conjunction with IEC 60297-3-103.

**2 Normative references**

The following referenced documents are indispensable for the application 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.

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*

IEC 60917-1:1998, *Modular order for the development of mechanical structures of electronic equipment practice*.