

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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

Structures mécaniques pour équipements électroniques – Dimensions des structures mécaniques de la série 482,6 mm (19 in) – Partie 3-102: Poignée d'injecteur/d'extracteur



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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

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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.

This bilingual version corresponds to the monolingual English version, published in 2004-08.

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.

The French version of this standard has not been voted upon.

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- withdrawn;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 [IEC 60297-3-102:2004](#)
- amended. <https://standards.iteh.ai/catalog/standards/sist/6bdf5339-3257-4288-b723-f1b7f4c291c1/iec-60297-3-102-2004>

(standards.iteh.ai)

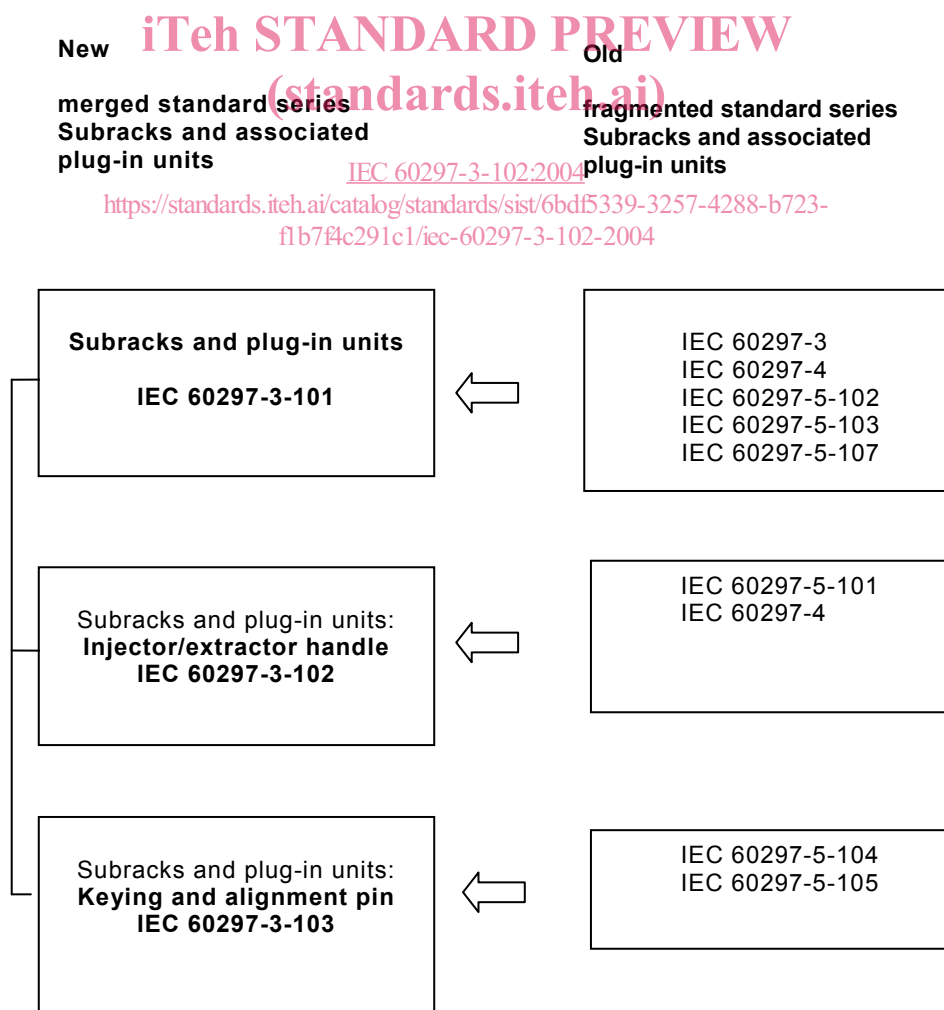
INTRODUCTION

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 for electronic equipment practices – Part 1: Generic standard*

<https://standards.iteh.ai/catalog/standards/sist/6bd15339-3257-4288-b723-f1b7f4c291c1/iec-60297-3-102-2004>

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60917-1 apply.

4 Arrangement overview of front panel mounted injector/extractor handle, Type A

The feature of type A injector/extractor creates an incompatible subrack to IEC 60297-3-101 – see Figure 2.

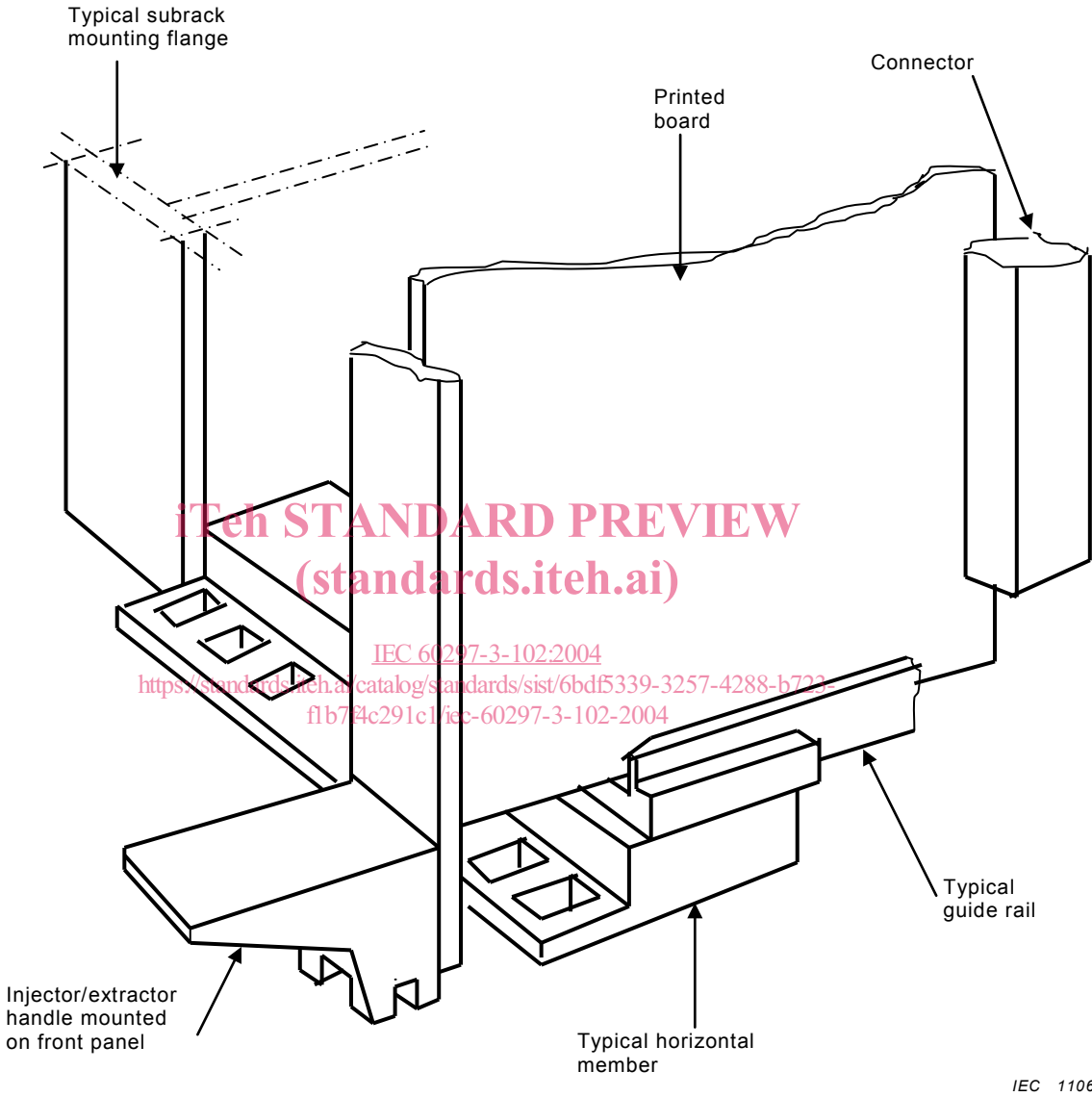


Figure 2 – Arrangement overview of front panel mounted injector/extractor handle, Type A

5 Subrack interface dimensions for front panel mounted injector/extractor, Type A

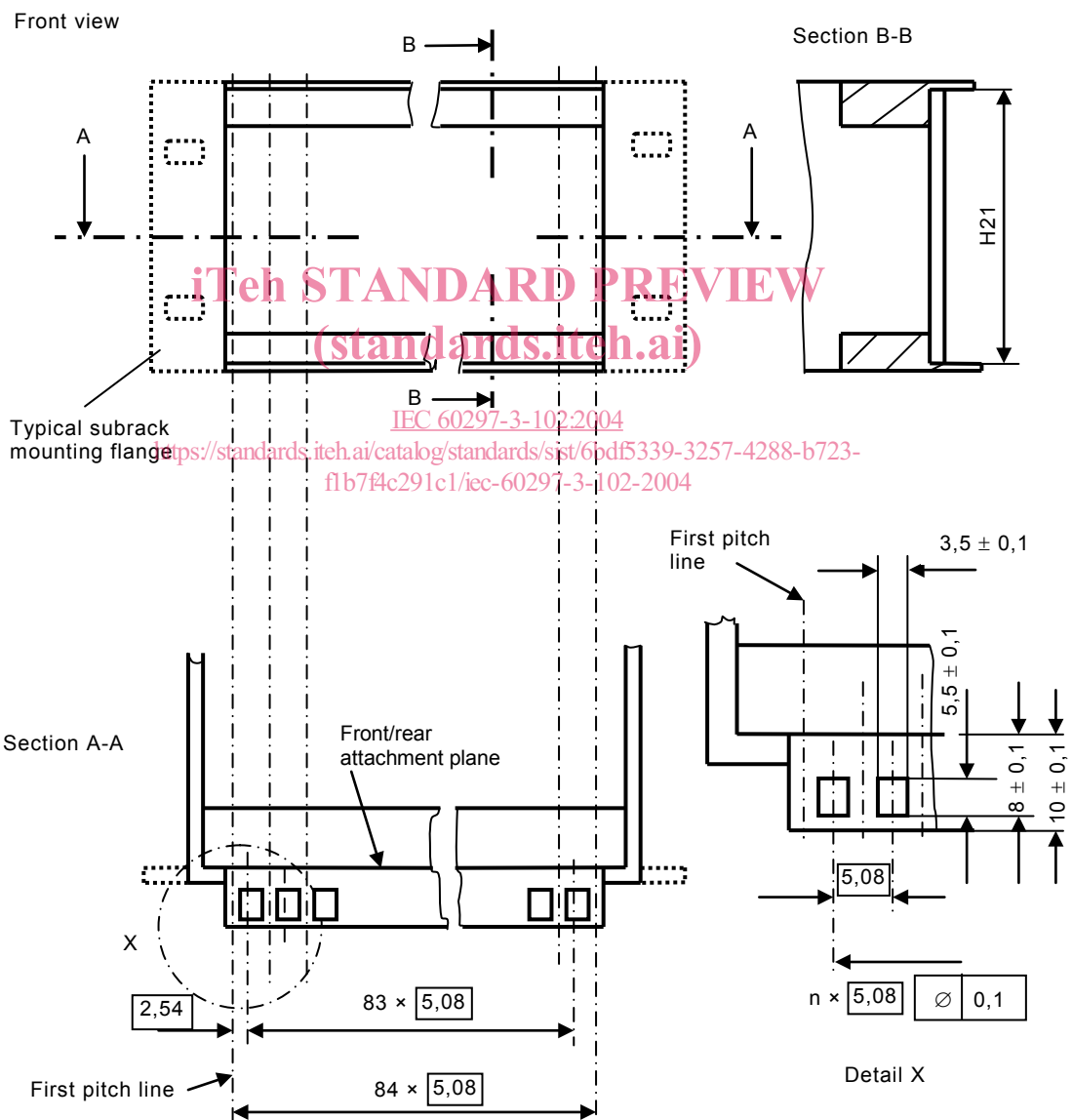
The front panel mounted injector/extractor and the receptacle on the subrack need additional interface dimensions to the subracks of IEC 60297-3-101 – see Table 1 and Figure 3.

Table 1 – Aperture dimensions of the subrack

All dimensions are in millimetres

Subrack heights	3U	6U	9U
Aperture H21 ± 0,3	129,2	262,55	395,9

All dimensions are in millimetres



NOTE Front section shown only. Rear section is of mirror image.
For missing dimensions, see IEC 60297-3-101.

IEC 1107/04

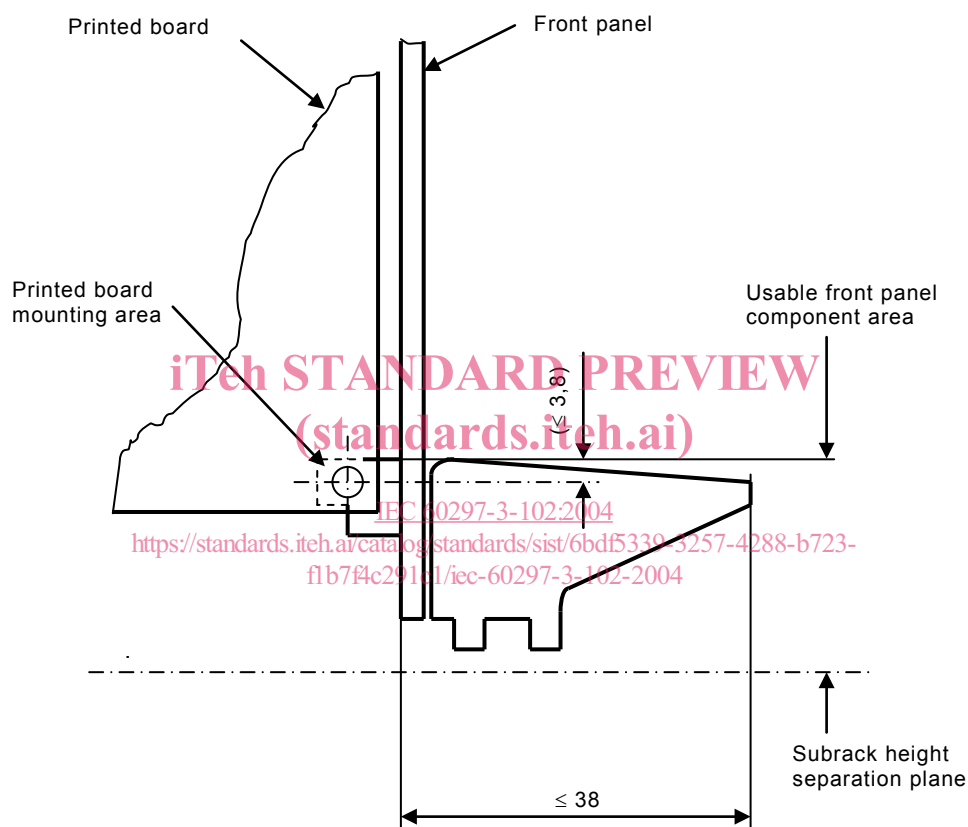
Figure 3 – Subrack interface dimensions for front panel mounted injector/extractor, Type A

6 Plug-in unit interface dimensions for front panel mounted injector/extractor handle, Type A

The width of the injector/extractor handle can be in any horizontal pitch ($> 1HP$). The handle interface dimensions shall not exceed the pitch lines nor protrude into the usable component area or subrack heights separation plane. See Figure 4.

For dimensions in brackets, see IEC 60297-3-101.

All dimensions are in millimetres



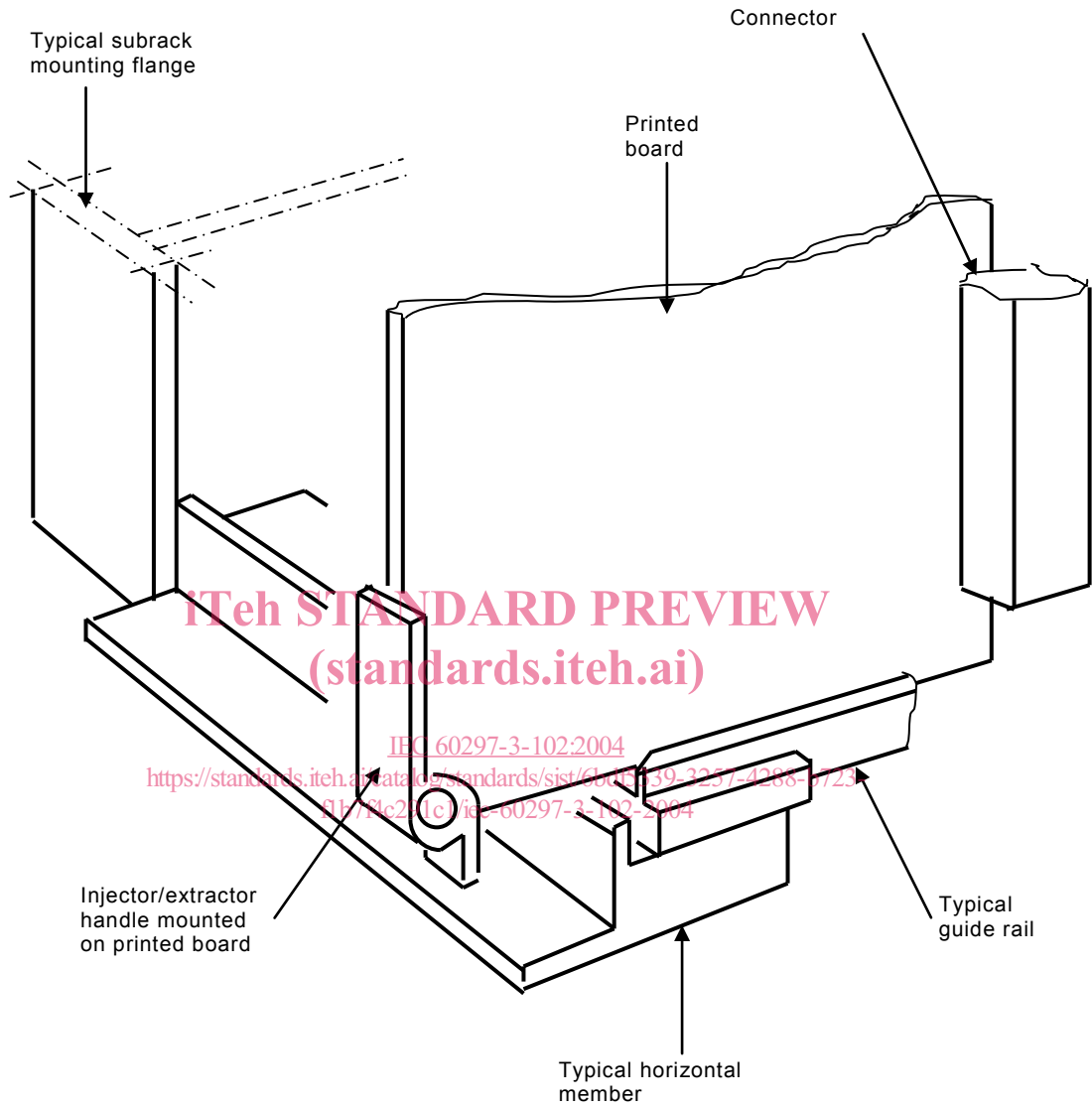
IEC 1108/04

NOTE For missing dimensions, see IEC 60297-3-101.

Figure 4 – Plug-in unit interface dimensions for front panel mounted injector/extractor handle, Type A

7 Arrangement overview of printed board mounted injector/extractor handle, Type B

See Figure 5.



IEC 1109/04

Figure 5 – Arrangement overview of printed board mounted injector/extractor handle, Type B