SLOVENSKI STANDARD

SIST EN 60917-2-3:2007

januar 2007

Modulno zaporedje pri razvoju mehanskih struktur po izkušnjah za elektronsko opremo - 2-3. del: Področna specifikacija - Usklajevanje vmesnikovih mer za 25 mm-sko opremo - Razširjena podrobna specifikacija - Mere za šasije stojal/okvirov, hrbtne plošče, čelne plošče in vtične enote (IEC 60917-2-3:2006)

(istoveten EN 60917-2-3:2006)

Modular order for the development of mechanical structures for electronic equipment practices - Part 2-3: Sectional specification - Interface coordination dimensions for the 25 mm equipment practice - Extended detail specification - Dimensions for subracks chassis, backplanes, front panels, and plug-in units (IEC 60917-2-3:2006)

ICS 31.240

Referenčna številka
SIST EN 60917-2-3:2007(en)

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60917-2-3

July 2006

ICS 31.240

English version

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

(IEC 60917-2-3:2006)

Ordre modulaire pour le développement des structures mécaniques pour les infrastructures électroniques Partie 2-3: Norme intermédiaire - Dimensions de coordination pour les interfaces des infrastructures au pas de 25 mm - Spécification particulière étendue - Dimensions pour bacs, châssis, fonds de panier, faces avant et blocs enfichables (CEI 60917-2-3:2006)

Modulordnung für die Entwicklung von Bauweisen für elektronische Einrichtungen Teil 2-3: Strukturnorm – Schnittstellen-Koordinationsmaße für die 25-mm-Bauweise – Erweiterte Maßnorm – Maße für Baugruppenträger, Einschübe, Rückplatten, Frontplatten und steckbare Baugruppen (IEC 60917-2-3:2006)

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CENELEC

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

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

Ref. No. EN 60917-2-3:2006 E

Foreword

The text of document 48D/338/FDIS, future edition 1 of IEC 60917-2-3, 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 60917-2-3 on 2006-06-01.

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)	2007-03-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2009-06-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60917-2-3:2006 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 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60917-1	1998	Modular order for the development of mechanical structures for electronic equipment practices Part 1: Generic standard	EN 60917-1	1998
IEC 60917-2-1	1993	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	1995
IEC 60917-2-2	1994	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	1996
IEC 61076-4-100	2001	Connectors for electronic equipment Part 4-100: Printed board connectors with assessed quality - Detail specification for two-part connector modules having a grid of 2,5 mm for printed boards and backplanes	EN 61076-4-100	2001
IEC 61076-4-101 + corr. November	2001 2003	Connectors for electronic equipment Part 4-101: Printed board connectors with assessed quality - Detail specification for two-part connector modules, having a basic grid of 2,0 mm for printed boards and backplanes in accordance with IEC 60917	EN 61076-4-101	2001
IEC 61076-4-104	1999	Connectors for use in d.c. low-frequency analogue and digital high speed data applications Part 4-104: Printed board connectors with assessed quality - Detail specification for two-part modular connectors, basic grid of 2,0 mm, with terminations on a multiple grid of 0,5 mm	EN 61076-4-104	1999

INTERNATIONAL STANDARD

IEC 60917-2-3

First edition
2006-05

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**

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Международная Электротехническая Комиссия

PRICE CODE V

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INTERNATIONAL ELECTROTECHNICAL COMMISION

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

FOREWORD

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International Standard IEC 60917-2-3 has been prepared by subcommittee 48D: Mechanical structures for electronic equipment, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

The text of this standard is based on following documents:

FDIS	Report on voting
48D/338/FDIS	48D/342/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.

IEC 60917 consists of the following parts, under the general title *Modular order for the development of mechanical structures for electronic equipment practices:*

Part 1: Generic standard

Part 2: Sectional specification – Interface co-ordination dimensions for the 25 mm equipment practice

Part 2-1: Sectional specification – Interface co-ordination dimensions for the 25 mm equipment practice – Detail specification – Dimensions for cabinets and racks

Part 2-2: Sectional specification – Interface co-ordination dimensions for the 25 mm equipment practice – Detail specification – Dimensions for subracks, chassis, backplanes, front panels and plug-in units

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

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 version of this publication may be issued at a later date.

INTRODUCTION

The dimensions in the detail specification for the 25 mm equipment practice standard are laid down in the IEC 60917-2 series.

Significant progress in electronics circuitry, with increasing signal speed and the demand for high availability of the electronics systems, has made an impact on the structural parts of the equipment, as specified in IEC 60917-2-2.

a) Considerations on the general tendency of the enclosure system

At the moment, the general tendencies of the enclosure system for telecom/IT equipment application and associated application are considered to be:

- the changing form of conventional centralized networking for telecommunication to flexible distributed networking to realize ubiquitous communication and computing environment by broad-band/IP and photonics-networking-based technology;
- flexible configuration of networking equipment from the open market is requested;
- a scalable and high-performance packaging/enclosure system is requested for new networking equipment;
- in addition, such a packaging/enclosure system will be widely applied for general electronic equipment, because IP networking technology is becoming one of the common interfaces for all of industrial systems.

Consequently, the following general requirements for the new enclosure system arise.

- Standard-based but various sized networking/IT equipment from the open market should be installed in one cabinet (see figure 1).
- The mass volume of copper/optical cables from the equipment should be managed in the cabinet.

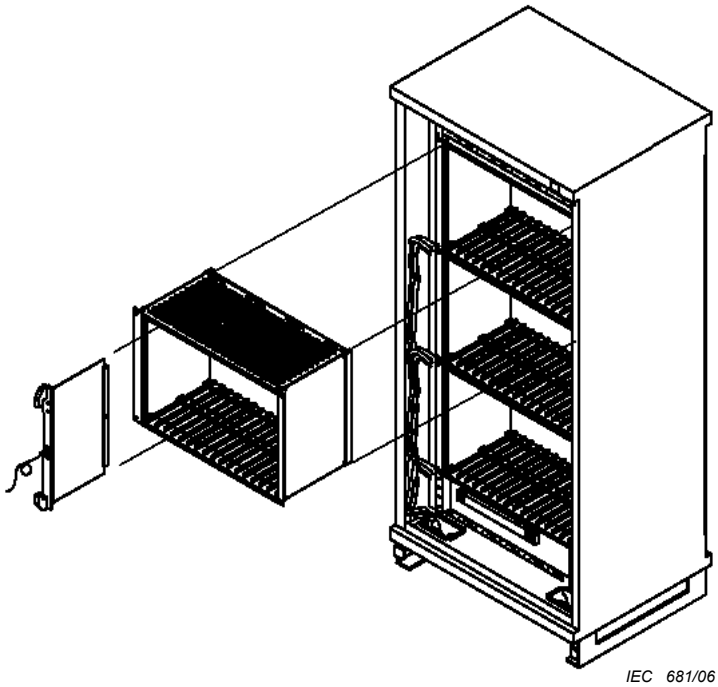
- Networking/IT cabinets will be increasingly sited at general offices in enterprise buildings rather than at traditional technical rooms in telecom-central offices.

In order to meet these market needs, the implementation of additional specified dimensions for extended features based on IEC 60917-2-2 became necessary.

b) Subject for development of extended connector application packaging based on IEC 60917 series

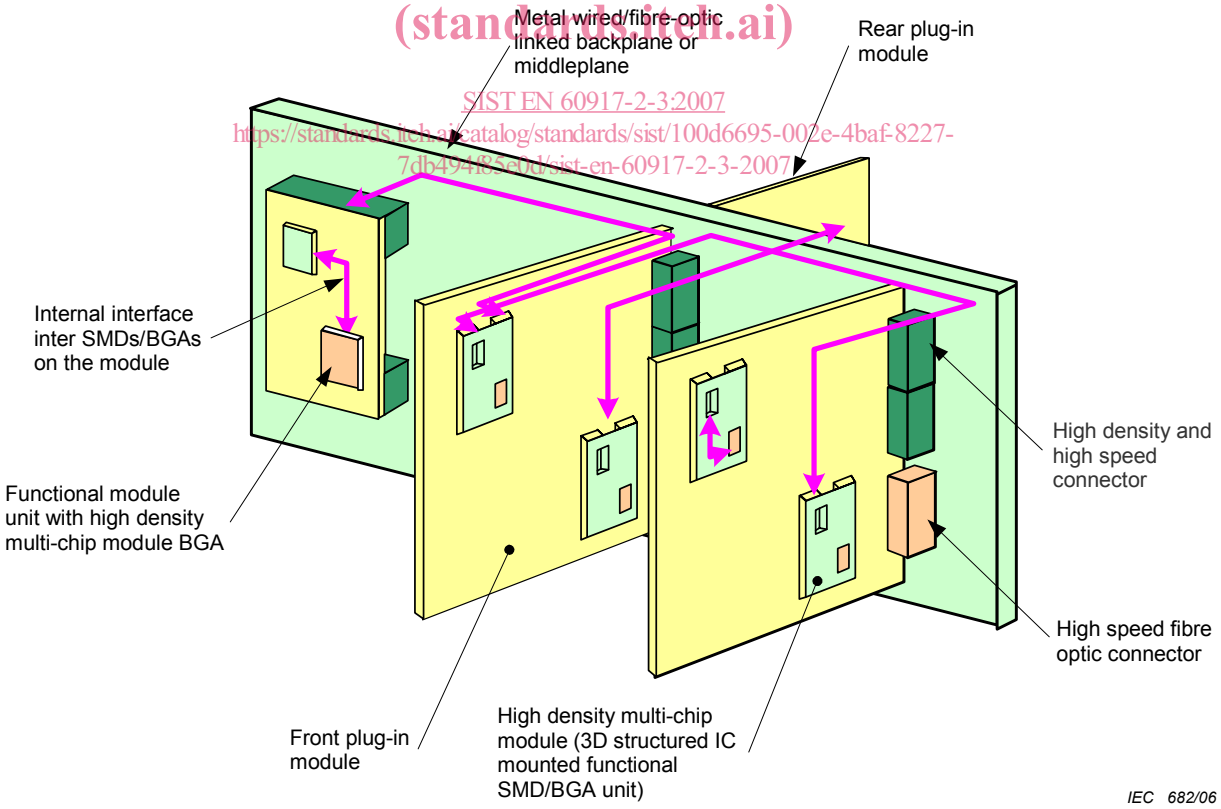
The existing IEC 60917 series, which is structured on the modular concept of 25 mm, is based on the IEC standardized metric connector. However, the system packaging uses to many non-standardized enhanced connectors, which are necessary to realize the system functions and level of performance (see Figure 2).

NOTE IEC Subcommittee 48D, Working Group 2, reviews the trends in system packaging, in which key elements are electrical/optical signal interfaces and connectors, as well as the general tendency of the new enclosure system. From these aspects, the IEC Subcommittee 48D, Working Group 2 has recently developed IEC 60917-2-3 which will be applicable to system packaging for high-speed and other system applications in the near future.



IEC 681/06

Figure 1 – Typical example of large subracks in a wide cabinet, equipped mass volume of copper/optical cables installation



IEC 682/06

Key

SMD: Surface Mount Device.

BGA: Ball Grid Array.

Figure 2 – Subject for development of extended connector application packaging and key elements of interconnection between functional plug-in modules via backplane in the future packaging system