
Elementi iz tekočih kristalov - 3. del: Celice prikazovalnika iz tekočih kristalov (LCD) - Področna specifikacija (IEC 61747-3:2006)

(istoveten EN 61747-3:2006)

Liquid crystal display devices - Part 3: Liquid crystal display (LCD) cells - Sectional specification (IEC 61747-3:2006)

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English version

Liquid crystal display devices
Part 3: Liquid crystal display (LCD) cells -
Sectional specification
(IEC 61747-3:2006)

Dispositifs d'affichage à cristaux liquides
Partie 3: Cellules d'affichage
à cristaux liquides (LCD) -
Spécification intermédiaire
(CEI 61747-3:2006)

Flüssigkristall-Anzeige-Bauelemente
Teil 3: Flüssigkristall-Anzeigezellen
(LCD-Zellen) -
Rahmenspezifikation
(IEC 61747-3:2006)

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This European Standard was approved by CENELEC on 2006-09-01. 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.

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat 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 Central Secretariat has the same status as the official versions.

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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

Foreword

The text of document 110/82/FDIS, future edition 2 of IEC 61747-3, prepared by IEC TC 110, Flat panel display devices was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61747-3 on 2006-09-01.

This European Standard supersedes EN 61747-3:1999.

The main changes with regard to EN 61747-3:1999 concern editorial updating in accordance with current ISO/IEC directives.

This part of EN 61747 is a sectional specification for liquid crystal display cells. It should be read together with the generic specification to which it refers.

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) 2007-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2009-09-01

Annex ZA has been added by CENELEC.

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Endorsement notice
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The text of the International Standard IEC 61747-3:2006 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 When 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 61747-1 | - ¹⁾ | Liquid crystal and solid-state display devices Part 1: Generic specification | EN 61747-1 | 1999 ²⁾ |
| IEC 61747-5 | - ¹⁾ | Liquid crystal and solid-state display devices Part 5: Environmental, endurance and mechanical test methods | EN 61747-5 | 1998 ²⁾ |
| IEC 61747-6 | - ¹⁾ | Liquid crystal and solid-state display devices Part 6: Measuring methods for liquid crystal modules - Transmissive type | EN 61747-6 | 2004 ²⁾ |
| IEC QC 001002-3 | 2005 | IEC Quality Assessment System for Electronic Components (IECQ) - Rules of Procedure Part 3: Approval procedures | - | - |

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¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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Deuxième édition
Second edition
2006-08

Dispositifs d'affichage à cristaux liquides –

**Partie 3:
Cellules d'affichage à cristaux liquides
(LCD) – Spécification intermédiaire**

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Liquid crystal display devices –

Part 3: [SIST EN 61747-3:2007](https://standards.iteh.ai/catalog/standards/sist/200773cd/1810-4561/a5c0-6e67ed0949/sist-en-61747-3-2007)

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**Liquid crystal display (LCD) cells –
Sectional specification**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LIQUID CRYSTAL DISPLAY DEVICES –**Part 3: Liquid crystal display (LCD) cells –
Sectional specification**

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 61747-3 has been prepared by IEC technical committee 110: Flat panel display devices.

This second edition cancels and replaces the first edition, published in 1998, and constitutes a technical revision.

The main changes with regard to the previous edition concern editorial updating in accordance with current ISO/IEC directives.

This part of IEC 61747 is a sectional specification for liquid crystal display cells. It should be read together with the generic specification to which it refers.

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

| FDIS | Report on voting |
|-------------|------------------|
| 110/82/FDIS | 110/89/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 QC number that appears on the front cover of this publication is the specification number in the IECQ Quality Assessment System for Electronic Components (IECQ).

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.

IEC 61747 consists of the following parts, under the general title *Liquid crystal display devices*:

- Part 1: Generic specification;
- Part 2: Liquid crystal display modules – Sectional specification
- Part 2-1: Passive matrix monochrome LCD modules – Blank detail specification
- Part 2-2: Matrix colour LCD modules – Blank detail specification
- Part 3: Liquid crystal display (LCD) cells – Sectional specification
- Part 3-1: Liquid crystal display (LCD) cells – Blank detail specification
- Part 4: Liquid crystal display modules and cells – Essential ratings and characteristics
- Part 4-1: Matrix colour LCD modules – Essential ratings and characteristics
- Part 5: Environmental, endurance and mechanical test methods
- Part 6: Measuring methods for liquid crystal modules – Transmissive type

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.

LIQUID CRYSTAL DISPLAY DEVICES –

Part 3: Liquid crystal display (LCD) cells – Sectional specification

1 Scope

This sectional specification applies to liquid crystal cells of the segment type monochrome . It gives details of the quality assessment procedures, the inspection requirements, screening sequences, sampling requirements and test and measurement procedures required for the assessment of liquid crystal display cells.

Instead of the qualification approval procedure, the capability approval procedure can be applied (see Clause 4 of IECQ 001002-3; however, at present the capability approval procedure for liquid crystal display cells is under consideration) for all products manufactured in a defined process.

All the requirements of this specification remain valid, unless modified by the requirements set out in 4.7 of this standard.

2 Normative references

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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 61747-1, *Liquid crystal and solid-state display devices – Part 1: Generic specification*

IEC 61747-5, *Liquid crystal and solid-state display devices – Part 5: Environmental, endurance and mechanical test methods*

IEC 61747-6, *Liquid crystal and solid-state display devices – Part 6: Measuring methods for liquid crystal modules – Transmissive type*

IECQ 001002-3:2005, *IEC Quality Assessment System for Electronic Components (IECQ) – Rules of Procedure – Part 3: Approval procedures*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

production line

an arrangement of process operations in production permitting sequential occurrence at various stages of production

EXAMPLES of processes:

- a) electrode patterning process;
- b) alignment treatment process;
- c) assembly process;