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# INTERNATIONAL STANDARD



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**Plasma display panels –  
Part 4-1: Environmental testing methods – Climatic and mechanical**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PLASMA DISPLAY PANELS –****Part 4-1: Environmental testing methods –  
Climatic and mechanical**

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

FDIS	Report on voting
110/637/FDIS	110/653/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.

A list of all the parts in the IEC 61988 series, under the general title *Plasma display panels*, 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- withdrawn,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.

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

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## PLASMA DISPLAY PANELS –

### Part 4-1: Environmental testing methods – Climatic and mechanical

#### 1 Scope

This part of IEC 61988 defines the following test methods for evaluating the climatic and mechanical endurance characteristics of plasma display modules (PDP modules):

- a) temperature and humidity tests
- b) air pressure tests
- c) mechanical tests

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60068-1:2013, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-1:2007, *Environmental testing – Part 2: Tests – Test A: Cold*

IEC 60068-2-2:2007, *Environmental testing – Part 2: Tests – Test B: Dry heat*

IEC 60068-2-6, *Environmental testing – Part 2: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-13:1983, *Basic environmental testing procedures – Part 2-13: Tests – Test M: Low air pressure*

IEC 60068-2-14:2009, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

IEC 60068-2-27:2008, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60068-2-30:2005, *Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle)*

IEC 60068-2-78:2012, *Environmental testing – Part 2-78: Tests – Test Cab: Damp heat, steady state*

IEC 61747-5:1998, *Liquid crystal and solid-state display devices – Part 5: Environmental, endurance and mechanical test methods*

IEC 61988-1, *Plasma display panels – Part 1: Terminology and letter symbols*

IEC 61988-2-1, *Plasma display panels – Part 2-1: Measuring methods – Optical and optoelectrical*

IEC 61988-2-5, *Plasma display panels – Part 2-5: Measuring methods – Acoustic noise*

ISO 2248, *Packaging – Complete, filled transport packages – Vertical impact test by dropping*

ISO 4180, *Packaging – Complete, filled transport packages – General rules for the compilation of performance test schedules – Part 1: General principles*

ISO 10531, *Packaging – Complete, filled transport packages – Stability testing of unit loads*