

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Photovoltaic (PV) modules – Transportation testing –
Part 1: Transportation and shipping of module package units**

**Modules photovoltaïques (PV) – Essais de transport –
Partie 1: Transport et expédition d'unités d'emballage de modules**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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TRANSPORTATION TESTING –**
Part 1: Transportation and shipping of module package units**FOREWORD**

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International Standard IEC 62759-1 has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

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

FDIS	Report on voting
82/962/FDIS	82/982/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 parts of IEC 62759 series, under the general title *Photovoltaic (PV) modules – Transportation testing*, 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

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PHOTOVOLTAIC (PV) MODULES – TRANSPORTATION TESTING –

Part 1: Transportation and shipping of module package units

1 Scope and object

Photovoltaic (PV) modules are electrical devices intended for continuous outdoor exposure during their lifetime. Existing type approval standards do not consider mechanical stresses that may occur during transportation to the PV installation destination.

This part of IEC 62759 describes methods for the simulation of transportation of complete package units of modules and combined subsequent environmental impacts, it does however not include pass/fail criteria.

This standard is designed so that its test sequence can co-ordinate with those of IEC 61215 or IEC 61646, so that a single set of samples may be used to perform both the transportation simulation and performance evaluation of a photovoltaic module design. This standard applies to flat plate photovoltaic modules, but may also be used as a basis for testing of CPV modules and assemblies.

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

IEC 60068-2-64, *Environmental testing – Part 2-64: Tests – Test Fh: Vibration, broadband random and guidance*

IEC 61215:2005, *Crystalline silicon terrestrial photovoltaic (PV) modules – Design qualification and type approval*

IEC 61646:2008, *Thin-film terrestrial photovoltaic (PV) modules – Design qualification and type approval*

IEC 61730-2:2004, *Photovoltaic (PV) module safety qualification – Part 2: Requirements for testing*

IEC TS 61836, *Solar photovoltaic energy systems – Terms, definitions and symbols*

IEC 62108:2007, *Concentrator photovoltaic (CPV) modules and assemblies – Design qualification and type approval*

IEC 62782, *Dynamic mechanical load testing for photovoltaic (PV) modules* (to be published)

ISO 13355, *Packaging – Complete, filled transport packages and unit loads – Vertical random vibration test*