



SLOVENSKI STANDARD
SIST EN 61345:2001
01-september-2001

UV-preskus za fotonapetostne (PV) module

UV test for photovoltaic (PV) modules

Prüfung von photovoltaischen (PV) Modulen mit ultravioletter (UV)-Strahlung

Essai aux rayons ultra-violets des modules photovoltaïques (PV)

Ta slovenski standard je istoveten z: EN 61345:1998

[SIST EN 61345:2001](https://standards.iteh.ai/catalog/standards/sist/a3c890a1-7c50-41aa-ade7-385011bfb738/sist-en-61345-2001)

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ICS:

27.160 Ú[} } aÁ } ^i* 1æ Solar energy engineering

SIST EN 61345:2001 **en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61345

April 1998

ICS 27.160

English version

**UV test for photovoltaic (PV) modules
(IEC 61345:1998)**

Essai aux rayons ultra-violetts des
modules photovoltaïques (PV)
(CEI 61345:1998)

Prüfung von photovoltaischen (PV)
Modulen mit ultravioletter
(UV)-Strahlung
(IEC 61345:1998)

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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.

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CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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 82/187/FDIS, future edition 1 of IEC 61345, prepared by IEC TC 82, Solar photovoltaic energy systems, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61345 on 1998-04-01.

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) 1999-01-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2001-01-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annex ZA is normative and annex A is informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61345:1998 was approved by CENELEC as a European Standard without any modification.

SIST EN 61345:2001

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Annex ZA (normative)

Normative references to international publications
with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 60904-1	1987	Photovoltaic devices Part 1: Measurement of photovoltaic current-voltage characteristics	EN 60904-1	1993
IEC 60904-3	1989	Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data	EN 60904-3	1993
IEC 61215	1993	Crystalline silicon terrestrial photovoltaic (PV) modules - Design qualification and type approval	EN 61215	1995
IEC 61646	1996	Thin-film terrestrial photovoltaic (PV) modules - Design qualification and type approval	EN 61646	1997

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

61345

Première édition
First edition
1998-02

**Essai aux rayons ultraviolets
des modules photovoltaïques (PV)**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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PRICE CODE

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For price, see current catalogue*

INTERNATIONAL ELECTROTECHNICAL COMMISSION

UV TEST FOR PHOTOVOLTAIC (PV) MODULES

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
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International Standard IEC 61345 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
82/187/FDIS	82/194/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.

Annex A is given for information only.

UV TEST FOR PHOTOVOLTAIC (PV) MODULES

1 Scope and object

This International Standard defines a test which determines the resistance of the module when exposed to ultra-violet (UV) radiation. This test is useful for evaluating the UV resistance of materials such as polymers and protective coatings.

The object of this test is to determine the ability of the module to withstand exposure to ultra-violet (UV) radiation from 280 nm to 400 nm. Before conducting this test, light soaking or other pre-conditioning should be performed in accordance with IEC 61215 or IEC 61646.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60904-1:1987, *Photovoltaic devices – Part 1: Measurements of photovoltaic current-voltage characteristics*

IEC 60904-3:1989, *Photovoltaic devices – Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data*

IEC 61215:1993, *Crystalline silicon terrestrial photovoltaic (PV) modules – Design qualification and type approval*

IEC 61646:1996, *Thin-film terrestrial photovoltaic (PV) modules – Design qualification and type approval*

3 Initial measurements

The following initial measurements shall be carried out:

- visual inspection in accordance with IEC 61215 or IEC 61646;
- I-V characteristics at standard test conditions (STC) in accordance with IEC 60904-1;
- insulation test in accordance with IEC 61215 or IEC 61646.