SLOVENSKI STANDARD
SIST EN 61730-1:2008/A2:2013

01-september-2013

Varnostne zahteve fotonapetostnih (PV) modulov - 1. del: Konstrukcijske zahteve - Dopolnilo A2

Photovoltaic (PV) module safety qualification - Part 1: Requirements for construction

Photovoltaik (PV) -Module - Sicherheitsqualifikation - Teil 1: Anforderungen an den Aufbau

Qualification pour la sûreté de fonctionnement des modules photovoltaïques (PV) - Partie 1: Exigences pour la construction

Ta slovenski standard je istoveten z: **EN 61730-1:2007/A2:2013**

ICS:

27.160	Sončna energija	Solar energy engineering

SIST EN 61730-1:2008/A2:2013 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61730-1/A2

May 2013

ICS 27.160

English version

Photovoltaic (PV) module safety qualification - Part 1: Requirements for construction

(IEC 61730-1:2004/A2:2013)

Qualification pour la sûreté de fonctionnement des modules photovoltaïques (PV) - Partie 1: Exigences pour la construction (CEI 61730-1:2004/A2:2013)

Photovoltaik(PV)-Module - Sicherheitsqualifikation - Teil 1: Anforderungen an den Aufbau (IEC 61730-1:2004/A2:2013)

This amendment A2 modifies the European Standard EN 61730-1:2007; it was approved by CENELEC on 2013-04-18. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This amendment 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 61730-1:2007/A2:2013 E

Foreword

The text of document 82/754/FDIS, future amendment 2 to edition 1 of IEC 61730-1, prepared by IEC/TC 82 "Solar photovoltaic energy systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61730-1:2007/A2:2013.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2014-01-18
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2016-04-18

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

Endorsement notice

The text of the International Standard IEC 61730-1:2004/A2:2013 was approved by CENELEC as a European Standard without any modification.

IEC 61730-1

Edition 1.0 2013-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 2
AMENDEMENT 2

Photovoltaic (PV) module safety qualification –
Part 1: Requirements for construction

Qualification pour la sûreté de fonctionnement des modules photovoltaïques (PV) –
Partie 1: Exigences pour la construction

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE
CODE PRIX **C**

ICS 27.160

ISBN 978-2-83220-668-3

Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.

FOREWORD

This amendment has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

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

FDIS	Report on voting
82/754/FDIS	82/762/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this amendment and the base 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.

5 Polymeric materials

Replace existing subclause 5.1 by the following:

5.1 General

All polymeric materials shall have a minimum relative thermal endurance index (electrical and mechanical as defined by IEC 60216-5) of 20 °C above the maximum measured operating temperature of said material in application, as measured during the temperature test (IEC 61730-2, MST 21).

Polymers are classified into five operational categories:

– polymers serving as an enclosure for live metal parts (such as a junction box) shall meet requirements as specified in 5.2;

– polymers serving as a support of live metal parts (such as integrated terminals) shall meet the requirements of 5.3;

– polymers serving as the outer surface for the module (such as a frontsheet and backsheet) which do not provide the major mechanical strength for the module shall meet the requirements of 5.4;

– polymers serving as a superstrate or a substrate which provide rigid reinforcement or serve as the carrier for the active cells;

- If the superstrate or substrate polymers are intended for contact with active cells they shall meet requirements as specified in 5.3.
- If the superstrate or substrate polymers are intended for use as an outer surface they shall meet requirements as specified in 5.4.

- If superstrate or substrate polymers are intended for both contact with active cells or other circuit elements and for use as the outer surface they shall meet requirements as specified in both 5.3 and 5.4.

– barriers shall meet the requirements of 5.5.

Exception: Encapsulation materials are not required to meet these requirements.

5.2 Polymers serving as an enclosure for live parts

In item c), as modified by Amendment 1, replace "ISO 4892-2", *by the following:*

ANSI/UL 746C or ISO 4892-2. Test condition defined by Xenon cycle 1 at 0,35 W/m^2/nm or 41 W/m^2 (in the wavelength range from 300 nm to 400 nm), test duration 1 000 h; equivalent pass/fail-criteria as in UL 746C shall be applied,

5.3 Polymers serving to support live parts

In item d), as modified by Amendment 1, replace "ANSI/UL 746C, ISO 4892-2 or ISO 4892-3" *by* "ANSI/UL 746C or ISO 4892-2".

Add, at the end of item d), the following:

Test conditions defined by Xenon cycle 1 at 0,35 W/m^2/nm or 41 W/m^2 (in the wavelength range from 300 nm to 400 nm), test duration 1 000 h; equivalent pass/fail-criteria as in UL 746C shall be applied.

5.4.3

Add, after "ANSI/UL 746C", *the following*:

or ISO 4892-2. Test condition defined by Xenon cycle 1 at 0,35 W/m^2/nm or 41 W/m^2 (in the wavelength range from 300 nm to 400 nm), test duration 1 000 h; equivalent pass/fail-criteria as in UL 746C shall be applied.

_____