



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 61730-1:2007

ICS 27.160

**PHOTOVOLTAIC (PV) MODULE SAFETY
QUALIFICATION -- PART 1:
REQUIREMENTS FOR CONSTRUCTION
(IEC 61730-1:2004 (MOD))**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61730-1

May 2007

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English version

**Photovoltaic (PV) module safety qualification –
Part 1: Requirements for construction
(IEC 61730-1:2004, modified)**

Qualification pour la sûreté de
fonctionnement des modules
photovoltaïques (PV) –
Partie 1: Exigences pour la construction
(CEI 61730-1:2004, modifiée)

Photovoltaik (PV) -Module –
Sicherheitsqualifikation –
Teil 1: Anforderungen an den Aufbau
(IEC 61730-1:2004, modifiziert)

This European Standard was approved by CENELEC on 2007-02-01. 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.

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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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 82/356/FDIS, future edition 1 of IEC 61730-1, prepared by IEC TC 82, Solar photovoltaic energy systems, was submitted to the IEC-CENELEC parallel vote.

A draft amendment, prepared by the Technical Committee CENELEC TC 82, Solar photovoltaic energy systems, was submitted to the Unique Acceptance Procedure.

The combined texts were approved by CENELEC as EN 61730-1 on 2007-02-01.

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) 2008-02-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2010-02-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61730-1:2004 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

General

Replace all references to "this part of IEC 61730" and "IEC 61730-2" by "this part of EN 61730" and "EN 61730-2".

2 Normative references

Replace the entire clause by:

See Annex ZA.

3 Application classes

3.2 Class A: General access, hazardous voltage, hazardous power applications

Replace the text by:

Modules rated for use in this application class may be used in systems operating at greater than 120 V DC. Modules qualified for safety through this part of EN 61730 and EN 61730-2 within this application class are considered to meet the requirements for safety class II.

3.4 Class C: Limited voltage

Change the title of the subclause as given above.

Replace the text by:

Modules rated for use in this application class are restricted to systems operating at less than 120 V DC. Modules qualified for safety through this part of EN 61730 and EN 61730-2 within this application class are considered to meet the requirements for safety class III.

NOTE Safety classes are defined within EN 61140.

5 Polymeric materials

5.1 General

Replace the second paragraph by:

Exception: Encapsulation materials (such as EVA, PVB, TPU etc.) are not required to meet these requirements.

5.2 Polymers serving as an enclosure for live parts

In Item c), **replace** "ANSI/UL 746C" by "EN ISO 4892 series".

5.3 Polymers serving to support live parts

In item b), **replace** "250 V" by "250".

Add the following notes:

NOTE 1 Polymeric materials having a CTI of 250 or more fall within insulation class IIIa of EN 60664-1.

NOTE 2 The use of polymeric materials requires consideration of the system voltage rating and the pollution class. In this context Table 4 of EN 60664-1 should be referenced.

Delete item c).

In Item d), **replace** "ANSI/UL 746C" by "EN ISO 4892 series".

Renumber the note into NOTE 3.

5.4.3 Polymers serving as an enclosure for live parts

Replace "ANSI/UL 746C" by "EN ISO 4892 series".

7.3 Connectors

Add the following sentence:

The standardization of connectors for PV application is an ongoing activity in CENELEC. This subclause will be superseded by a future European Standard.

7.3.1 Replace "IEC 60130 series" by "EN 61984".

7.3.3 Replace "IEC 61721" by "IEC 60512-5-1" and "EN 60512-5-2".

11 Marking

Add the following sentence:

The marking should be done in conformance with EN 50380.

11.1 Add to the list:

- application class of the product;
- for class A modules, the Safety Class II symbol (see IEC 60417, symbol 5172).

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