



SLOVENSKI STANDARD

SIST EN 60904-2:2008

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SIST EN 60904-2:2001

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Photovoltaic devices - Part 2: Requirements for reference solar devices

Photovoltaische Einrichtungen - Teil 2: Anforderungen an Referenz-Solarelemente

Dispositifs photovoltaïques - Partie 2: Exigences relatives aux dispositifs solaires de référence

Ta slovenski standard je istoveten z: EN 60904-2:2007

ICS:

27.160 Solar energy engineering

SIST EN 60904-2:2008 en,fr,de

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English version

**Photovoltaic devices -
Part 2: Requirements for reference solar devices
(IEC 60904-2:2007)**

Dispositifs photovoltaïques -
Partie 2: Exigences relatives aux
dispositifs solaires de référence
(CEI 60904-2:2007)

Photovoltaische Einrichtungen -
Teil 2: Anforderungen an
Referenz-Solarelemente
(IEC 60904-2:2007)

This European Standard was approved by CENELEC on 2007-05-01. 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.

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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 82/425/CDV, future edition 2 of IEC 60904-2, prepared by IEC TC 82, Solar photovoltaic energy systems, was submitted to the IEC-CENELEC parallel Unique Acceptance Procedure and was approved by CENELEC as EN 60904-2 on 2007-05-01.

EN 60904-2:2007 supersedes EN 60904-2:1993 + A1:1998 and EN 60904-6:1994 + A1:1998.

The main technical changes with regard to EN 60904-2:1993 are as follows:

- added subclause on “Calibration traceability”;
- added subclause on “Construction” to differentiate the various types of reference devices;
- added guidance on use of a built-in shunt resistor;
- increased data sheet requirements. In particular added requirement for either a mismatch correction or an estimate of uncertainty due to the mismatch of the reference device;
- added Clause on “Calibration of working solar reference devices”.

The following dates were fixed:

- | | | |
|--|-------|------------|
| <ul style="list-style-type: none"> – 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 |
| <ul style="list-style-type: none"> – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2010-05-01 |

Annex ZA has been added by CENELEC [SIST EN 60904-2:2008](#)

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Endorsement notice

The text of the International Standard IEC 60904-2:2007 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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

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 60891	- ¹⁾	Procedures for temperature and irradiance corrections to measured I-V characteristics of crystalline silicon photovoltaic devices	EN 60891	1994 ²⁾
IEC 60904-1	- ¹⁾	Photovoltaic devices - Part 1: Measurement of photovoltaic current-voltage characteristics	EN 60904-1	2006 ²⁾
IEC 60904-5	- ¹⁾	Photovoltaic devices - Part 5: Determination of the equivalent cell temperature (ECT) of photovoltaic (PV) devices by the open-circuit voltage method	EN 60904-5	1995 ²⁾
IEC 60904-7	- ¹⁾	Photovoltaic devices - Part 7: Computation of spectral mismatch error introduced in the testing of a photovoltaic device	EN 60904-7	1998 ²⁾
IEC 60904-8	- ¹⁾	Photovoltaic devices - Part 8: Measurement of spectral response of a photovoltaic (PV) device	EN 60904-8	1998 ²⁾
IEC 60904-9	- ¹⁾	Photovoltaic devices - Part 9: Solar simulator performance requirements	-	-
IEC 60904-10	- ¹⁾	Photovoltaic devices - Part 10: Methods of linearity measurement	EN 60904-10	1998 ²⁾
IEC 61215	- ¹⁾	Crystalline silicon terrestrial photovoltaic (PV) modules - Design qualification and type approval	EN 61215	2005 ²⁾
IEC 61646	- ¹⁾	Thin-film terrestrial photovoltaic (PV) modules - Design qualification and type approval	EN 61646	1997 ²⁾

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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INTERNATIONAL STANDARD

IEC 60904-2

Second edition
2007-03

Photovoltaic devices –

**Part 2:
Requirements for reference solar devices**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

PHOTOVOLTAIC DEVICES –

Part 2: Requirements for reference solar devices

FOREWORD

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International Standard IEC 60904-2 has been prepared by IEC Technical Committee 82: Solar photovoltaic energy systems.

This second edition cancels and replaces IEC 60904-2 (1989), its Amendment 1 (1998) and IEC 60904-6 (1994) and its Amendment 1 (1998). It constitutes a technical revision.

The main technical changes with regard to the previous edition are as follows:

- Added subclause on "Calibration traceability".
- Added subclause on "Construction" to differentiate the various types of reference devices.
- Added guidance on use of a built-in shunt resistor.