BS EN IEC 60904-2:2023

BSI Standards Publication

Photovoltaic devices

Part 2: Requirements for photovoltaic reference devices

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National foreword

This British Standard is the UK implementation of EN IEC 60904-2:2023. It is identical to IEC 60904-2:2023. It supersedes BS EN 60904-2:2015, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/82, Photovoltaic Energy Systems.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60904-2

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English Version

Photovoltaic devices - Part 2: Requirements for photovoltaic reference devices (IEC 60904-2:2023)

Dispositifs photovoltaïques - Partie 2: Exigences applicables aux dispositifs photovoltaïques de référence (IEC 60904-2:2023)

Photovoltaische Einrichtungen - Teil 2: Anforderungen an Referenz-Solarelemente (IEC 60904-2:2023)

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

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European foreword

The text of document 82/2127/FDIS, future edition 4 of IEC 60904-2, prepared by IEC/TC 82 "Solar photovoltaic energy systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60904-2:2023.

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) 2024-04-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-07-24

This document supersedes EN 60904-2:2015 and all of its amendments and corrigenda (if any).

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Endorsement notice

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In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 61215 (series) NOTE Approved as EN IEC 61215 (series)

IEC 61853-1 NOTE Approved as EN 61853-1

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60891	-	Photovoltaic devices - Procedures for temperature and irradiance corrections to measured I-V characteristics	EN IEC 60891	-
IEC 60904-1	-	Photovoltaic devices - Part 1: Measurement of photovoltaic current-voltage characteristics	EN IEC 60904-1	-
IEC 60904-3	-	Photovoltaic devices - Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data	EN IEC 60904-3	-
IEC 60904-4	-	Photovoltaic devices - Part 4: Photovoltaic reference devices - Procedures for establishing calibration traceability	EN IEC 60904-4	-
IEC 60904-5	-	Photovoltaic devices - Part 5: Determination of the equivalent cell temperature (ECT) of photovoltaic (PV) devices by the open-circuit voltage method	EN 60904-5	-
IEC 60904-7	-	Photovoltaic devices - Part 7: Computation of the spectral mismatch correction for measurements of photovoltaic devices	EN IEC 60904-7	-
IEC 60904-8	-	Photovoltaic devices - Part 8: Measurement of spectral responsivity of a photovoltaic (PV) device	EN 60904-8	-
IEC 60904-9	-	Photovoltaic devices - Part 9: Classification of solar simulator characteristics	EN IEC 60904-9	-
IEC 60904-10	-	Photovoltaic devices - Part 10: Methods of linear dependence and linearity measurements	EN IEC 60904-10	-
IEC/TS 61836	-	Solar photovoltaic energy systems - Terms, definitions and symbols	CLC/TS 61836	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

PHOTOVOLTAIC DEVICES –

Part 2: Requirements for photovoltaic reference devices

FOREWORD

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IEC 60904-2 has been prepared by IEC technical committee 82: Solar photovoltaic energy systems. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2015. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) added calibration procedures for calibrating PV devices at maximum power by extending the respective Clauses 12 and 13;
b) revised requirements for mandatory measurement of spectral responsivity, temperature coefficients and linearity, depending on usage and allowing some measurements on equivalent devices;
c) revised requirements for built-in shunt resistor;
d) added requirements for traceability of calibration explicitly.

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The text of this International Standard is based on the following documents:

Draft	Report on voting
82/2127/FDIS	82/2151/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 60904 series, published under the general title *Photovoltaic devices*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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