



# SLOVENSKI STANDARD

## SIST EN 62446-1:2016

01-junij-2016

Nadomešča:  
SIST EN 62446:2010

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**Fotonapetostni sistemi, priključeni na omrežje - Minimalne zahteve za sistemsko dokumentacijo, prevzemne preskuse in nadzor**

Grid connected PV systems - Minimum requirements for system documentation, commissioning tests and inspection

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Systèmes photovoltaïques connectés au réseau électrique - Exigences minimales pour la documentation du système, les essais de mise en service et l'examen

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**Ta slovenski standard je istoveten z: EN 62446-1:2016**

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**ICS:**

27.160

Sončna energija

Solar energy engineering

**SIST EN 62446-1:2016**

**en**

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EUROPEAN STANDARD

**EN 62446-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2016

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English Version

Photovoltaic (PV) systems - Requirements for testing,  
documentation and maintenance - Part 1: Grid connected  
systems - Documentation, commissioning tests and inspection  
(IEC 62446-1:2016)

Systèmes photovoltaïques (PV) - Exigences pour les  
essais, la documentation et la maintenance - Partie 1:  
Systèmes connectés au réseau électrique - Documentation,  
essais de mise en service et examen  
(IEC 62446-1:2016)

Photovoltaik (PV) Systeme - Anforderungen an Prüfung,  
Dokumentation und Instandhaltung - Teil 1: Netzgekoppelte  
Systeme - Dokumentation, Inbetriebnahmeprüfung und  
Prüfanforderungen  
(IEC 62446-1:2016)

This European Standard was approved by CENELEC on 2016-02-23. 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.

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

**EN 62446-1:2016****European foreword**

The text of document 82/1036/FDIS, future edition 1 of IEC 62446-1, prepared by IEC/TC 82 "Solar photovoltaic energy systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62446-1:2016.

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) 2016-11-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-02-23

This document supersedes EN 62446:2009.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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

NOTE 1 When 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.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60364-6	-	Low voltage electrical installations -- Part 6: Verification	HD 60364-6	-
IEC 61010	series	Safety requirements for electrical equipment for measurement, control and laboratory use	EN 61010	series
IEC 61557	series	Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. - Equipment for testing, measuring or monitoring of protective measures	EN 61557	series
IEC 61730	series	Photovoltaic (PV) module safety qualification	EN 61730	series
IEC/TS 62548	2013	Photovoltaic (PV) arrays - Design requirements	-	-

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IEC 62446-1

Edition 1.0 2016-01

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



**Photovoltaic (PV) systems – Requirements for testing, documentation  
and maintenance –  
Part 1: Grid connected systems – Documentation, commissioning tests  
and inspection**

SIST EN 62446-1:2016

<https://standards.iteh.ai/catalog/standards/sist/74375338-68af-4635-816b->

**Systèmes photovoltaïques (PV) – Exigences pour les essais, la documentation  
et la maintenance –  
Partie 1: Systèmes connectés au réseau électrique – Documentation,  
essais de mise en service et examen**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PHOTOVOLTAIC (PV) SYSTEMS – REQUIREMENTS FOR TESTING,  
DOCUMENTATION AND MAINTENANCE –****Part 1: Grid connected systems – Documentation,  
commissioning tests and inspection**

## FOREWORD

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International Standard IEC 62446-1 has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

This first edition cancels and replaces IEC 62446 published in 2009. This edition constitutes a technical revision.

This edition includes the following significant technical change with respect to IEC 62446:2009:

- the scope has been expanded to include a wider range of system test and inspection regimes to encompass larger and more complex PV systems.

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

FDIS	Report on voting
82/1036/FDIS	82/1056A/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.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62446 series, published under the general title *Photovoltaic (PV) systems – Requirements for testing, documentation and maintenance*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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.

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## INTRODUCTION

Grid connected PV systems are expected to have a lifetime of decades, with maintenance or modifications likely at some point over this period. Building or electrical works in the vicinity of the PV array are very likely, for example roof works adjacent to the array or modifications (structural or electrical) to a home that has a PV system. The ownership of a system may also change over time, particularly for systems mounted on buildings. Only by the provision of adequate documentation at the outset can the long term performance and safety of the PV system and works, on or adjacent to the PV system, be ensured.

This part of IEC 62446 is split into two sections:

- **System documentation requirements** – This section details the information that shall be provided within the documentation provided to the customer following installation of a grid connected PV system.
- **Verification** – This section provides the information expected to be provided following initial (or periodic) verification of an installed system. It includes requirements for inspection and testing.

This part of IEC 62446 references IEC TS 62548:2013, which is in the process of being converted into an International Standard. It is envisaged that work on the second edition of IEC 62446-1 will start when IEC 62548 is completed.

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