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

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NATIONAL FOREWORD

See Eesti standard EVS-EN 62446-1:2016 sisaldab Euroopa standardi EN 62446-1:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 62446-1:2016 consists of the English text of the European standard EN 62446-1:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 08.04.2016.	Date of Availability of the European standard is 08.04.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 27.160

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62446-1

April 2016

ICS 27.160

Supersedes EN 62446:2009

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.

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

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

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Ref. No. EN 62446-1:2016 E

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.

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.

Endorsement notice

The text of the International Standard IEC 62446-1:2016 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 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.

Publication	Year	Title	EN/HD	Year
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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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.