IEC TS 61836

Edition 4.0 2025-11

TECHNICAL SPECIFICATION

Solar photovoltaic energy systems - Terms, definitions and symbols

ICS 27.160

ISBN 978-2-8327-0745-6

IEC TS 61836:2025-11(en)

THIS PUBLICATION IS COPYRIGHT PROTECTED
Copyright © 2025 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC
The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications
The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform
The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, …). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished
Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc
If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch
Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org
The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD 2
INTRODUCTION 4
1 Scope 5
2 Normative references 5
3 Terms, definitions and symbols 5
3.1 Photovoltaic cells and modules 5
3.2 Other components 12
3.3 Photovoltaic systems 13
3.4 Performance parameters 15
3.5 Measurement and testing 17
3.6 Environmental parameters 18
Index of terms and symbols 20

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

Solar photovoltaic energy systems - Terms, definitions and symbols

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at https://patents.iec.ch. IEC shall not be held responsible for identifying any or all such patent rights.

IEC TS 61836 has been prepared by IEC technical committee 82 Solar photovoltaic energy systems. It is a Technical Specification.

This fourth edition cancels and replaces the third edition published in 2016. It constitutes a technical revision.

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

a) Only the basic and essential terms to be included in the IEV have been selected and defined.

The text of this Technical Specification is based on the following documents:

Draft	Report on voting
82/2446/DTS	82/2513/RVDTS

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 Technical Specification 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.

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, or
– revised.

INTRODUCTION

Since 1987, IEC TC 82 has developed international standards in the field of photovoltaic systems to facilitate communication between experts from IEC and ISO technical committees, industrialists and users of PV technology. The first three editions of IEC TS 61836 have brought together the terms and definitions of the photovoltaic IEC international standards.

In 2018 the IEC TC 82 plenary meeting decided to publish the basic PV vocabulary in IEC 60050 International Electrotechnical Vocabulary and thus make the terms and definitions available online to a wider audience including governmental, non-governmental organizations and the international scientific and technical press.

IEC TC 82 selected 115 basic terms from more than 500 available terms to date. As only a few terms relating to photovoltaics are currently listed in the IEV, it was decided by IEC TC 82, TC 1 Terminology and IEC Central Office to introduce in the IEV a new section 'Solar photovoltaics' with the selected terms.

IEC TC 82 drafted the definitions according to the recommendations of Annex SJ Rules for terminology work of the ISO/IEC Directives, IEC Supplement:2024.

The terms are listed alphabetically in six categories:

– photovoltaic cells and modules;
– other components;
– photovoltaic systems;
– performance parameters;
– measurement and testing;
– environmental parameters.

1 Scope

IEC TS 61836 covers solar photovoltaic (PV) terminology, definitions and symbols used in IEC TC 82 international standards.

Edition 4 of IEC TS 61836 presents a selection of basic PV terms and definitions intended for inclusion in the multilingual online International Electrotechnical Vocabulary (IEV) in collaboration with IEC TC 1 and IEC Central Office.

2 Normative references

There are no normative references in this document.