

TECHNICAL SPECIFICATION

Solar photovoltaic energy systems - Terms, definitions and symbols

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Solar photovoltaic energy systems -
Terms, definitions and symbols**

FOREWORD

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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 IECV 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.

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- revised.

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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.

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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.

3 Terms, definitions and symbols

3.1 Photovoltaic cells and modules

3.1.1

active photovoltaic cell area

active PV cell area

part of the cell area designed to receive solar radiation

Note 1 to entry: Active PV cell area does not include the metallisation lines.

3.1.2

active photovoltaic module area

active PV module area

part of the total module area designed to receive solar radiation for the generation of electric power

Note 1 to entry: Active PV module area equals the sum of the total cell area in the module.

3.1.3

amorphous silicon photovoltaic cell

a-Si photovoltaic cell

photovoltaic cell fabricated from thin layers of hydrogenated amorphous silicon as the active photovoltaic material deposited on a foreign substrate

Note 1 to entry: Also referenced as a thin-film amorphous silicon photovoltaic cell.

Note 2 to entry: Variants of thin-film amorphous silicon include microcrystalline silicon ($\mu\text{-Si}$), etc.

3.1.4

amorphous silicon photovoltaic module

photovoltaic module manufactured with amorphous silicon photovoltaic cells

Note 1 to entry: Also referenced as a thin-film amorphous silicon photovoltaic module.

3.1.5

anti-reflective coating

layer formed on the surface of a photovoltaic cell or the frontsheet of a photovoltaic module to reduce solar radiation reflectance