

INTERNATIONAL STANDARD

AMENDMENT 2

Photovoltaic systems - Design qualification of solar trackers

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

Photovoltaic systems - Design qualification of solar trackers

AMENDMENT 2

FOREWORD

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Amendment 2 to IEC 62817:2014 has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

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

Draft	Report on voting
82/2651/FDIS	82/2698/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 Amendment 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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- reconfirmed,
- withdrawn, or
- revised.

2 Normative references

Add the following new references:

IEC 60204-1:2016, *Safety of machinery - Electrical equipment of machines - Part 1: General requirements*

IEC 60204-1:2016/AMD1:2021

IEC 60228, *Conductors of insulated cables*

IEC 60664-1, *Insulation coordination for equipment within low-voltage supply systems - Part 1: Principles, requirements and tests*

IEC 60721-3-4:2019, *Classification of environmental conditions - Part 3-4: Classification of groups of environmental parameters and their severities - Stationary use at non-weatherprotected locations*

IEC 61000-6-1:2016, *Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments*

IEC 61000-6-2:2016, *Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments*

IEC 61000-6-3:2020, *Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for equipment in residential environments*¹

IEC 61000-6-4:2018, *Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments*

IEC TS 61836:2025, *Solar photovoltaic energy systems - Terms, definitions and symbols*

¹ This publication has been withdrawn.

ISO 9223, *Corrosion of metals and alloys - Corrosivity of atmospheres - Classification, determination and estimation*

Replace the existing references IEC 60904-3:2008 and IEC 61000-4-5:2005 with the following new references:

IEC 60904-3:2019, *Photovoltaic devices - Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data*

IEC 61000-4-5:2014, *Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test*

Delete the existing reference ISO/IEC 17025.

3 Terms and definitions

Replace, in the first existing paragraph, the first sentence with the following new sentence:

For the purposes of this document, the terms and definitions given in IEC TS 61836 and the following apply.

5 Report

Delete, in the first existing paragraph, the first two sentences.

6.8.3 Payload

Replace, in the second existing paragraph, the reference "7.4.6" with "8.4".

6.12 Environmental conditions

Add, before the existing 6.12.1, the following new subclause:

6.12.7 General

Solar trackers shall be suitable for a wide range of outdoor environmental and climatic conditions. While it is impossible to identify all combinations of the physical environment and operating conditions that can be encountered at solar tracker installations, a framework for the definition of global environmental conditions is presented in the IEC 60721 series.

Each of the subcomponents should be chosen to meet related requirements within their relevant standards for below operating conditions.

At a minimum, solar trackers shall be capable of operation and storage in climatic conditions classified as 4K26, in accordance with IEC 60721-3-4. Specifications for solar trackers may exceed these minimum requirements as appropriate or necessary for the installed location, in particular for hot or cold weather environments.

6.12.1 to 6.12.18 specify additional requirements or modifications to the 4K26 classification, if any, related to individual environmental parameters. Table 3 shows a classification of climatic conditions.