IEC 61215-2

Edition 2.0 2021-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Terrestrial photovoltaic (PV) modules – Design qualification and type approval – Part 2: Test procedures

Modules photovoltaïques (PV) pour applications terrestres – Qualification de la conception et homologation –
Partie 2: Procédures d'essai

IEC 61215-2:2021-02(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 27.160

ISBN 978-2-8322-9394-2

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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TERRESTRIAL PHOTOVOLTAIC (PV) MODULES – DESIGN QUALIFICATION AND TYPE APPROVAL –

Part 2: Test procedures

FOREWORD

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International Standard IEC 61215-2 has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

This second edition of IEC 61215-2 cancels and replaces the first edition of IEC 61215-2 issued in 2016; it constitutes a technical revision.

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

a) Addition of cyclic (dynamic) mechanical load testing (MQT 20).
b) Addition of a test for detection of potential-induced degradation (MQT 21).
c) Addition of test methods required for bifacial PV modules.
d) Addition of test methods required for flexible modules. This includes the addition of the bending test (MQT 22).
e) Revision of simulator requirements to ensure uncertainty is both well-defined and minimized.

f) Correction to the hot spot endurance test, where the procedure for monolithically integrated (MLI) thin film technologies (MQT 09.2) previously included two sections describing a procedure only appropriate for silicon modules.

g) Selection of three diodes, rather than all, for testing in the bypass diode thermal test (MQT 18).

h) Removal of the nominal module operating test (NMOT), and associated test of performance at NMOT, from the IEC 61215 series.

Informative Annex A of IEC 61215-1:2021 explains the background and reasoning behind some of the more substantial changes that were made in the IEC 61215 series in progressing from edition 1 to edition 2.

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

FDIS	Report on voting
82/1829/FDIS	82/1853/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

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

A list of all parts in the IEC 61215 series, published under the general title *Terrestrial photovoltaic (PV) modules – Design qualification and type approval*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

Whereas Part 1 of this standards series describes requirements (both in general and specific with respect to device technology), the sub-parts of Part 1 define technology variations and Part 2 defines a set of test procedures necessary for design qualification and type approval. The test procedures described in Part 2 are valid for all device technologies.