

AS/NZS 61215.1.3:2023



Australian/New Zealand Standard™

Terrestrial photovoltaic (PV) modules — Design qualification and type approval

**Part 1.3: Special requirements for testing of thin-film amorphous silicon
based photovoltaic (PV) modules (IEC 61215-1-3:2021, (ED.2.1) MOD)**



AS/NZS 61215.1.3:2023

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-042, Renewable Energy Power Supply Systems and Equipment

The objective of this document is to specify requirements for the design qualification of terrestrial photovoltaic modules suitable for long-term operation in open-air climates.

NOTE 1 The useful service life of modules so qualified will depend on their design, their environment and the conditions under which they are operated.

NOTE 2 Test results are not construed as a quantitative prediction of module lifetime.

Users wishing to gain confidence that the characteristics tested in AS/NZS 61215 appear consistently in a manufactured product may wish to utilize AS/NZS 62941 regarding quality systems in PV manufacturing.

This document is intended to apply to all thin-film amorphous silicon (a-Si; a-Si/ μ c-Si) based terrestrial flat plate modules. As such, it addresses special requirements for testing of this technology supplementing AS/NZS 61215.1:2023 and AS/NZS 61215.2:2023 requirements for testing.

This document does not apply to modules used with concentrated sunlight although it may be utilized for low concentrator modules (1 to 3 suns). For low concentration modules, all tests are performed using the irradiance, current, voltage and power levels expected at the design concentration.

Some long-term degradation mechanisms can only reasonably be detected via component testing, due to long times required to produce the failure and necessity of stress conditions that are expensive to produce over large areas. Component tests that have reached a sufficient level of maturity to set pass/fail criteria with high confidence are incorporated into the AS/NZS 61215 series via addition to Table 1 in AS/NZS 61215.1. In contrast, the tests procedures described in this series, in AS/NZS 61215.2, are performed on modules.

This document defines PV technology dependent modifications to the testing procedures and requirements per AS/NZS 61215.1:2023 and AS/NZS 61215.2:2023.

This document is an adoption with national modifications, and has been reproduced from, IEC 61215-1-3:2021+AMD1:2022 CSV (ED.2.1), *Terrestrial photovoltaic (PV) modules — Design qualification and type approval — Part 1-3: Special requirements for testing of thin-film amorphous silicon based photovoltaic (PV) modules*.

The modifications are additional requirements and are set out in [Appendix ZZ](#) which have been added at the end of the source text.

[Appendix ZZ](#) lists the modifications to IEC 61215-1-3:2021 for the application of this document in Australia and New Zealand.

As this document has been reproduced from an International document, a full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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