DMMS IEC 61215-1:2021 - Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1: Test requirements

Abstract

IEC 61215-1:2021 is available as IEC 61215-1:2021 RLV which contains the International Standard and its Redline version, showing all changes of the technical content compared to the previous edition.

IEC 61215-1:2021 lays down requirements for the design qualification of terrestrial photovoltaic modules suitable for long-term operation in open-air climates. The useful service life of modules so qualified will depend on their design, their environment and the conditions under which they are operated. Test results are not construed as a quantitative prediction of module lifetime. This document is intended to apply to all terrestrial flat plate module materials such as crystalline silicon IEC 61215-1:2021 Identical Adoption 2 module types as well as thin-film modules. It does not apply to systems that are not long-term applications, such as flexible modules installed in awnings or tenting. This second edition of IEC 61215-1 cancels and replaces the first edition of IEC 61215-1, published in 2016. This edition includes the following significant technical changes with respect to the previous edition:

a. Addition of a test taken from IEC TS 62782.

b. Addition of a test taken from IEC TS 62804-1.

c. Addition of test methods required for flexible modules. This includes the addition of the bending test (MQT 22).

d. Addition of definitions, references and instructions on how to perform the IEC 61215 design qualification and type approval on bifacial PV modules.

e. Clarification of the requirements related to power output measurements.

f. Addition of weights to junction box during 200 thermal cycles.

g. Requirement that retesting be performed according to IEC TS 62915.

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

The contents of the corrigendum of May 2021 have been included in this copy.