



Designation: E 1802 – 9601

An American National Standard

Standard Test Methods for Wet Insulation Integrity Testing of Photovoltaic Modules¹

This standard is issued under the fixed designation E 1802; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 These test methods ~~cover~~ provide procedures for ~~verifying to determine the electrical insulation integrity resistance of a photovoltaic (PV) module, i.e. the electrical resistance between the module's internal electrical components and its exposed, electrically conductive, non-current carrying parts and surfaces.~~

1.2 The insulation integrity procedures are a combination of wet insulation resistance and ~~wet current leakage (high-potential) dielectric voltage withstand~~ test procedures.

1.3 These procedures are similar to and reference the insulation integrity test procedures described in Test Methods E 1462, with the difference being that the photovoltaic module under test is immersed in a wetting solution during the procedures.

1.4 These test methods do not establish pass or fail levels. The determination of acceptable or unacceptable results is beyond the scope of these test methods.

1.5 The values stated in SI units are to be regarded as the standard.

1.6 There is no similar or equivalent ISO standard.

1.6⁷ *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.* For specific precautionary statements, see Section 6.

2. Referenced Documents

2.1 *ASTM Standards:*

¹ These test methods are under the jurisdiction of ASTM Committee E44 on Solar, Geothermal, and Other Alternative Energy Sources and are the direct responsibility of Subcommittee E44.09 on Photovoltaic Electric Power Conversion.

Current edition approved ~~May~~ June 10, ~~1996~~ 2001. Published ~~in~~ September 2001. Originally published as E 1802 – 96. Last previous edition E 1802 – 96.