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मानक

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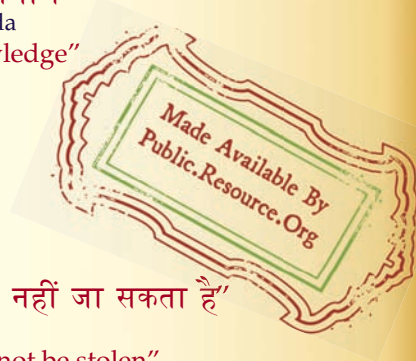
IS/IEC 61701 (1995): Salt Mist Corrosion Testing of Photovoltaic (PV) Modules [ETD 28: Solar Photovoltaic Energy Systems]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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IS/IEC 61701:1995

भारतीय मानक
प्रकाशवोल्टीय मॉड्यूल का लवण मिस्ट संक्षारण परीक्षण

Indian Standard

SALT MIST CORROSION TESTING OF
PHOTOVOLTAIC (PV) MODULES

ICS 27.180

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BUREAU OF INDIAN STANDARDS

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DELHI 110002

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NATIONAL FOREWORD

This Indian Standard which is identical with IEC 61701 : 1995 'Salt mist corrosion testing of photovoltaic (PV) modules' issued by the International Electrotechnical Commission (IEC) was adopted by the Bureau of Indian Standards on the recommendation of the Solar Photovoltaic Energy Systems Sectional Committee and approval of the Electrotechnical Division Council.

The text of the IEC Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

b) Comma (,) has been used as a decimal marker in the International Standard while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards which are to be substituted in their respective places are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
IEC 60068-1 : 1988 Environmental testing — Part 1: General and guidance	IS 9001 (Part 1): 1984 ¹⁾ Guidance for environmental testing: Part 1 General	Technically Equivalent
IEC 60068-2-11:1981 Environmental testing — Part 2: Tests —Test Ka: Salt mist	IS 9000 (Part 11) : 1983 Basic environmental testing procedures for electronic and electrical items: Part 11 Salt mist test	do
IEC 60904-1 : 1987 ²⁾ Photovoltaic devices — Part 1: Measurements of photovoltaic current-voltage characteristics	IS 12762 (Part 1) : 2010 Photovoltaic devices: Part 1 Measurement of photovoltaic current voltage characteristics (<i>first revision</i>)	do

Only the English language text of the International Standard has been retained while adopting it in this Indian Standard, and as such the page numbers given here are not the same as in the IEC Standard.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be same as that of the specified value in this standard.

1) This standard is identical to IEC 60068-1 (1982).

2) Since revised in 2006.

Indian Standard

SALT MIST CORROSION TESTING OF PHOTOVOLTAIC (PV) MODULES

1 Scope and object

The purpose of this test is to determine the resistance of the module to corrosion from salt mist.

This test is useful for evaluating the compatibility of materials, and the quality and uniformity of protective coatings.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 68-2-11: 1981, *Environmental testing - Part 2: Tests - Test Ka: Salt mist*

IEC 904-1: 1987, *Photovoltaic devices -Part 1: Measurements of photovoltaic current-voltage characteristics*

IEC 68-1: 1988, *Environmental testing -Part 1: General and guidance*

3 Initial measurements

- Visual inspection.
- I-V characteristic at STC (in accordance with IEC 904-1).
- Insulation test in accordance with the relevant IEC standards (under consideration).

4 Procedure

Carry out the test in accordance with IEC 68 -1 and IEC 68 -2-11, Test Ka, subject to the following requirements:

- Preconditioning: not required
- Conditioning: specimen position: the inclination to the vertical of the face of the module normally exposed to solar irradiance shall be 15° to 30°
- Duration of the test: 96 h

5 Final measurements

- Visual inspection both before and after washing and drying the module.
- I-V characteristic at STC (in accordance with IEC 904-1) after washing and drying the module.
- insulation test in accordance with the relevant IEC standards (under consideration).

6 Requirements

- No mechanical deterioration or corrosion of module components which would significantly impair their function during their intended life.
- The electrical performance (maximum power) shall not decrease by more than 5 % of the initial value.
- The requirements of the insulation test shall be met.

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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard alongwith amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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