

**Environmental testing - Part 2-18: Tests – Test R and
guidance: Water**

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Teil 2-18: Prüfungen, Prüfung R und Leitfaden: Wasser
(IEC 60068-2-18:2017)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 104/719/FDIS, future edition 3 of IEC 60068-2-18, prepared by IEC/TC 104 "Environmental conditions, classification and methods of test" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60068-2-18:2017.

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This document supersedes EN 60068-2-18:2001.

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In the official version, for Bibliography, the following note has to be added for the standard indicated:

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INTRODUCTION

A number of water tests are described in other IEC publications. Some of them are well established, for example, the test for classification of the second characteristic numeral of the IP Code, of IEC 60529.

This document incorporates the majority of the most widely used tests, as well as making available further methods and increasing the number of severities.

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ENVIRONMENTAL TESTING –

Part 2-18: Tests – Test R and guidance: Water

1 Scope

This part of IEC 60068 provides methods of test applicable to products which, during transportation, storage or in service, can be subjected to falling water drops, impacting water, immersion or high pressure water impact. The primary purpose of water tests is to verify the ability of enclosures, covers and seals to maintain components and equipment in good working order after and, when necessary, under a standardized drop field or immersion in water.

These tests are not corrosion tests and cannot be considered and used as such.

Established water tests in other standards are not intended to simulate natural rainfall and their quoted intensities are too high to be adopted for that purpose. Therefore, in addition to the high-intensity severities, test R includes an artificial rain test based upon natural conditions but not taking into account high wind speeds generally associated with natural rain.

Guidance is given on the applicability of the tests and the severities to be selected.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardisation at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

rain

precipitation in the form of water drops

Note 1 to entry: Both the amount that falls and the actual falling action of the water drops are often called rainfall.

3.2

drizzle

precipitation in the form of very small, numerous and uniformly dispersed water drops that may appear to float while following air currents

3.3

raindrop

drop of water having a diameter greater than 0,5 mm falling through the atmosphere