

TECHNICAL REPORT



AMENDMENT 1

**HV polymeric insulators for indoor and outdoor use tracking and erosion testing
by wheel test and 5 000 h test**

IECNORM.COM : Click to view the full PDF of IEC TR 62730:2012/AMD1:2024



THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2024 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, ...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch

Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IECNORM.COM : Click to view the full PDF of IEC TR 61733-2012/AMD1:2024

TECHNICAL REPORT



AMENDMENT 1

**HV polymeric insulators for indoor and outdoor use tracking and erosion testing
by wheel test and 5 000 h test**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 29.080.10

ISBN 978-2-8322-8937-2

Warning! Make sure that you obtained this publication from an authorized distributor.

INTERNATIONAL ELECTROTECHNICAL COMMISSION

HV POLYMERIC INSULATORS FOR INDOOR AND OUTDOOR USE TRACKING AND EROSION TESTING BY WHEEL TEST AND 5 000 H TEST

AMENDMENT 1

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch> or www.iso.org/patents. IEC shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to IEC TR 62730:2012 has been prepared by IEC technical committee 36: Insulators.

The text of this Amendment is based on the following documents:

Draft	Report on voting
36/596/DTR	36/601/RVDTR

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Amendment is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications/.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

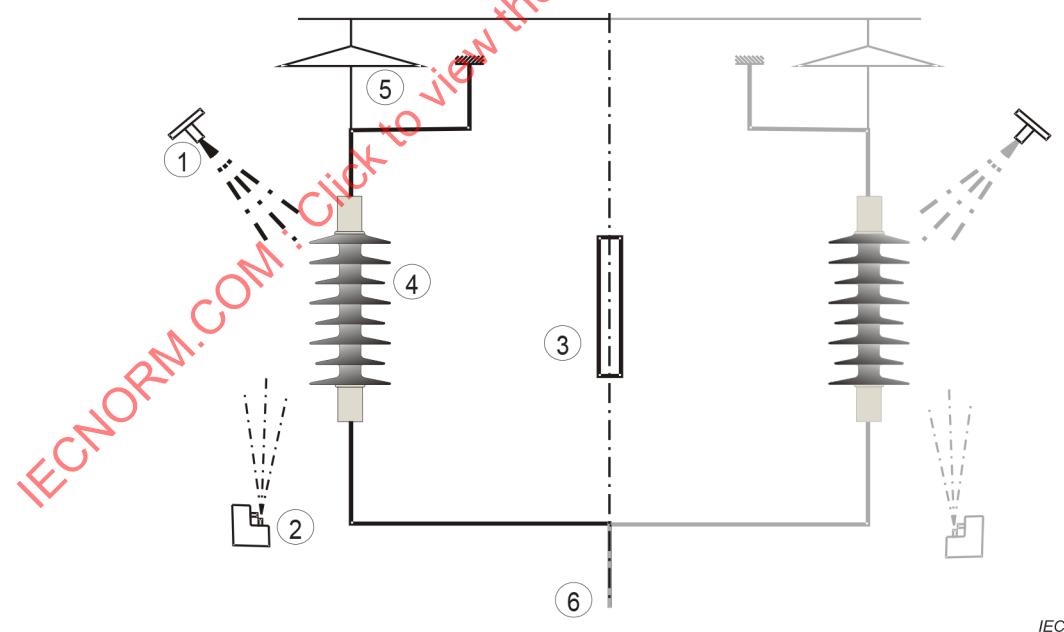
7.2.2 Procedure

Renumber the existing Note to 7.2.2.2 as Note 1 and add the following new Note 2 at the end of 7.2.2:

NOTE 2 Chambers with a size larger than 20 m³ can be used in order to allow testing of full-size objects if the criteria for calibration and environment (e.g. time to reach temperature during dry heat period) are fulfilled.

Figure 4 – Typical layout of the rain and salt fog spray systems and the xenon lamp

Replace existing Figure 4 with the following new figure:



7.2.9 Pollution

Replace the existing text of the second, third and fourth paragraphs of 7.2.9 with the following new text:

The spray nozzles are mounted close to the bottom of the chamber and spray upwards towards the roof of the chamber. The fog should fill up the chamber and not be directly sprayed on to the test specimen. Salt water prepared from NaCl dissolved in tap water should be supplied to the spray nozzles. The fog intensity and uniformity should be maintained in the specimen's exposure zone.

7.2.10 Salt fog calibration

Replace the existing text of 7.2.10 (including Figure 6) with the following new text:

The calibration will be carried out before the start of the test.

At least two clean collecting receptacles with a collecting area of $8\,000\text{ mm}^2 \pm 2\,000\text{ mm}^2$ and a maximum height of 100 mm each are placed as close as practical to the position of the ends of the test object. The receptacles are positioned in such a way that they are not shielded by the test specimens and to avoid dripping from the construction elements of the chamber or another source.

They should collect between 1,5 ml and 2,0 ml of precipitation per hour (corrected to $8\,000\text{ mm}^2$ collecting area) averaged over a minimum period of 16 h.

NOTE The flow rate necessary to obtain such precipitation (typically of the order of $0,3\text{ l/m}^3\text{h}$ based on a chamber not larger than 15 m^3) should be noted. (The water flow rate is defined in litres per hour and per cubic meter of the test chamber volume.) Subsequently during the test, the flow rate should be checked at least every 100 h and should remain within $\pm 25\%$ of the initial value.

It is not permitted to re-circulate the water.
