

<b>STN</b>	<b>Dielektrické a odporové vlastnosti tuhých izolačných materiálov Časť 3-4: Určovanie odporových vlastností (jednosmerné DC metódy) Objemový elektrický odpor a objemová rezistivita pri zvýšených teplotách</b>	<b>STN EN IEC 62631-3-4</b>  34 6460
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Dielectric and resistive properties of solid insulating materials - Part 3-4: Determination of resistive properties (DC methods) - Volume resistance and volume resistivity at elevated temperatures

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 10/19

Obsahuje: EN IEC 62631-3-4:2019, IEC 62631-3-4:2019

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EUROPEAN STANDARD

**EN IEC 62631-3-4**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2019

ICS 17.220.99; 29.035.01

English Version

**Dielectric and resistive properties of solid insulating materials -  
Part 3-4: Determination of resistive properties (DC methods) -  
Volume resistance and volume resistivity at elevated  
temperatures  
(IEC 62631-3-4:2019)**

Propriétés diélectriques et résistives des matériaux isolants solides - Partie 3-4: Détermination des propriétés résistives (méthodes en courant continu) - Résistance transversale et résistivité transversale aux températures élevées  
(IEC 62631-3-4:2019)

Dielektrische und resistive Eigenschaften fester Isolierstoffe - Teil 3-4: Bestimmung resistiver Eigenschaften (Gleichspannungsverfahren) - Durchgangswiderstand und spezifischer Durchgangswiderstand bei erhöhten Temperaturen  
(IEC 62631-3-4:2019)

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

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**EN IEC 62631-3-4:2019 (E)****European foreword**

The text of document 112/406/CDV, future edition 1 of IEC 62631-3-4, prepared by IEC/TC 112 "Evaluation and qualification of electrical insulating materials and systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62631-3-4:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-02-02
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IEC 62631-1      NOTE      Harmonized as EN 62631-1

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60212	2010	Standard conditions for use prior to and during the testing of solid electrical insulating materials	EN 60212	2011
IEC 62631-3-1	-	Dielectric and resistive properties of solid insulating materials - Part 3-1: Determination of resistive properties (DC methods) - Volume resistance and volume resistivity - General method	EN 62631-3-1	-



IEC 62631-3-4

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# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Dielectric and resistive properties of solid insulating materials –  
Part 3-4: Determination of resistive properties (DC methods) – Volume  
resistance and volume resistivity at elevated temperatures**

**Propriétés diélectriques et résistives des matériaux isolants solides –  
Partie 3-4: Détermination des propriétés résistives (méthodes en courant  
continu) – Résistance transversale et résistivité transversale aux températures  
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IEC 62631-3-4

Edition 1.0 2019-03

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Part 3-4: Determination of resistive properties (DC methods) – Volume  
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**DIELECTRIC AND RESISTIVE PROPERTIES OF SOLID  
INSULATING MATERIALS –****Part 3-4: Determination of resistive properties (DC methods) –  
Volume resistance and volume resistivity at elevated temperatures**

## FOREWORD

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International Standard IEC 62631-3-4 has been prepared by IEC technical committee 112: Evaluation and qualification of electrical insulating materials and systems.

This edition of IEC 62631-3-4 cancels and replaces IEC 60345 "Method of test for electrical resistance and resistivity of insulating materials at elevated temperatures", published in 1971. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 60345:

- a) The revised standard becomes part of the series IEC 62631-3-x. Title of the standard is changed and adapted to the series as Part 3-4.
- b) Clauses 2 "Normative references", 3 "Terms and definitions", and 4 "Significance" are added.

- c) Subclauses 5.2 "Power supply, Voltage", 5.3.1.2 "Number of test specimens" and 5.3.1.3 "Conditioning and pre-treatment of test specimens" are added.
- d) In 5.3.5 "Special precautions during measurements", errors analysis in the measurement of current are modified, and aligned with IEC 62631-3-1.
- e) In 6.2 "Increasing the temperature by steps (method B)", the method for more than one specimen is removed.
- f) The standard atmospheric conditions for testing and conditioning, especially the temperature, are replaced according to IEC 60212.
- g) The circuit diagram of test apparatus is modified, and the structure diagram and pictures of test apparatus are added in Annex A.
- h) The orders of part clauses are adjusted.

The text of this International Standard is based on the following documents:

CDV	Report on voting
112/406/CDV	112/445/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62631 series, published under the general title *Dielectric and resistive properties of solid insulating materials*, can be found on the IEC website.

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

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## **DIELECTRIC AND RESISTIVE PROPERTIES OF SOLID INSULATING MATERIALS –**

### **Part 3-4: Determination of resistive properties (DC methods) – Volume resistance and volume resistivity at elevated temperatures**

#### **1 Scope**

This part of IEC 62631 covers procedures for the determination of insulation resistance and volume resistivity of insulating materials by applying DC-voltage and temperatures up to 800 °C. The typical application materials include high temperature mica plate and alumina ceramics.

#### **2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60212:2010, *Standard conditions for use prior to and during the testing of solid electrical insulating materials*

IEC 62631-3-1, *Dielectric and resistive properties of solid insulating materials – Part 3-1: Determination of resistive properties (DC methods) – Volume resistance and volume resistivity – General method*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**