

# INTERNATIONAL STANDARD

**EXTENDED VERSION**

This full version of IEC 62271-201:2026 includes the content of the references made to IEC 62271-1:2017+AMD1:2021

**High-voltage switchgear and controlgear -  
Part 201: AC solid-insulation enclosed switchgear and controlgear for rated  
voltages above 1 kV and up to and including 52 kV**

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# INTERNATIONAL ELECTROTECHNICAL COMMISSION

**IEC 62271-1**  
Edition 2.0 2017-07

## HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

### Part 1: Common specifications for alternating current switchgear and controlgear

## INTERPRETATION SHEET 1

This interpretation sheet has been prepared by IEC technical committee 17: High-voltage switchgear and controlgear.

The text of this interpretation sheet is based on the following documents:

| DISH         | Report on voting |
|--------------|------------------|
| 17/1090/DISH | 17/1095/RVDISH   |

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

### Interpretation of 4.2.2 of IEC 62271-1:2017 regarding the altitude correction factor

Subclause 4.2.2 of IEC 62271-1:2017 contains two references for calculation of the required insulation withstand level at altitudes higher than 1 000 m, IEC 60071-2:1996 and IEC TR 62271-306. The two references are in conflict, as the altitude correction factor according to IEC 60071-2:1996 starts at sea level and that of IEC TR 62271-306 starts at an altitude of 1 000 m. This results in different altitude correction factors.

As already stated in 5.3 of IEC 62271-1:2017, the rated insulation levels refer to normal service conditions. Altitudes up to 1 000 m above sea level are covered and need no altitude correction.

For altitudes higher than 1 000 m the equation provided in 4.5.1.1 b) of IEC TR 62271-306:2012 and in H.3.4 of IEC 60071-2:2018 shall be used, i.e.

$$k_{\text{alt}} = e^{m \left( \frac{H-1000}{8150} \right)}$$

where

$k_{\text{alt}}$  is the altitude correction factor;

$H$  is the altitude in m above sea level;

$m$  is an exponent.

Conservative values for the exponent  $m$  are provided in Table 4 of IEC TR 62271-306:2012. For further details about the exponent  $m$ , see H.4 of IEC 60071-2:2018.

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# Sample Document

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**High-voltage switchgear and controlgear -  
Part 201: AC solid-insulation enclosed switchgear  
and controlgear for rated voltages above 1 kV  
and up to and including 52 kV**

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