

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Composite station post insulators for substations with AC voltages greater than 1 000 V up to 245 kV –

Part 1: Dimensional, mechanical and electrical characteristics

Supports isolants composites destinés aux postes à courant alternatif de tensions supérieures à 1 000 V jusqu'à 245 kV –

Partie 1: Caractéristiques dimensionnelles, mécaniques et électriques



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

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**COMPOSITE STATION POST INSULATORS
FOR SUBSTATIONS WITH AC VOLTAGES GREATER
THAN 1 000 V UP TO 245 kV –**

Part 1: Dimensional, mechanical and electrical characteristics

FOREWORD

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International Standard IEC 62231-1 has been prepared by IEC technical committee 36: Insulators.

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

FDIS	Report on voting
36/372/FDIS	36/373/RVD

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

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

A list of all parts in the IEC 62231 series, published under the general title *Composite station post insulators for substations with a.c. voltages greater than 1 000 V up to 245 kV*, can be found on the IEC website.

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

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COMPOSITE STATION POST INSULATORS FOR SUBSTATIONS WITH AC VOLTAGES GREATER THAN 1 000 V UP TO 245 kV –

Part 1: Dimensional, mechanical and electrical characteristics

1 Scope

This part of IEC 62231 is applicable to composite station post insulators for substations with a.c. voltages greater than 1 000 V up to 245 kV.

It also applies to composite station post insulators of similar design used in power stations of railway systems.

This part of IEC 62231 specifies main dimensions and values for mechanical and electrical characteristics of composite station post insulators.

NOTE The composite station post insulators covered by this standard are primarily intended for outdoor service, but can also be used indoor.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60815-1:2008, *Selection and dimensioning of high-voltage insulators intended for use in polluted conditions – Part 1: Definitions, information and general principles*

IEC 60815-3, *Selection and dimensioning of high-voltage insulators intended for use in polluted conditions – Part 3: Porcelain insulators for a.c. systems*

IEC 62231:2006, *Composite station post insulators for substations with a.c. voltages greater than 1 000 V up to 245 kV – Definitions, test methods and acceptance criteria*

3 Terms and definitions

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

3.1

composite station post insulator

insulator consisting of a solid load bearing cylindrical insulating core, a housing and end fittings attached to the insulating core

[SOURCE: IEC 62231:2006, 3.1]

3.2

creepage distance

shortest distance or the sum of the shortest distances along the surface on an insulator between two conductive parts which normally have the operating voltage between them