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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 21429-2008

**Composite insulators -- Hollow insulators for use in outdoor
and indoor electrical equipment -- Definitions, test methods,
acceptance criteria and design recommendations**

户外和户内电气设备用空心复合绝缘子 定义、试验方法、接收准则和设计推荐
(English Translation)

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Foreword

This revised standard adopts IEC 61462:1998 "Outdoor and indoor electrical equipment hollow insulator definitions, test methods composite, receiving Guidelines and design recommendations." this standard and IEC 61462:1998 "indoors and outdoors electrical equipment hollow composite insulators definitions, test methods and acceptance criteria Design recommendations, "the technical differences between a single vertical line (I) in which they are involved in the provision of margin identity. In the informative Appendix D it gives a list of the technical differences and the reasons for the reference. For ease of comparison, the data are listed in Appendix E of the Standard Terms and Conditions

1998 List of control provisions. with IEC 61462.

Compared with its increase of a trial.

--- Design experiments umbrella cover material increased resistance to tracking and erosion tests, mainly on account of the present situation of production and operation Claim.

For ease of use, this standard also made the following editorial changes.

- a) "this International Standard" be replaced by "this standard";
- b) use a decimal point instead of a decimal comma " , " . " , " ;
- c) Remove the preface to international standards.

Appendix A of this standard is a normative appendix, Appendix B, Appendix C, Appendix D, Appendix E is informative appendix.

The standard proposed by China Electrical Equipment Industrial Association, the National Standardization Technical Committee under the jurisdiction of the insulator.

This standard was drafted. Xi'an Ceramic Institute, China Electric Power Research Institute, Wuhan High Voltage Research Institute, Fujian Electric Power Company, Nantong City of God Ma Power Technology Co., Ltd., the high level Group Limited, Shanghai MWB Transformer Co., Ltd., Jiangsu Jiuding New Material Co. Shares Company, Beijing Pan Am Mine Technology Co., Ltd.

Introduction

Hollow composite insulators made of an elastic protective umbrella cover to withstand mechanical loads and insulating tubes, this load transfer from the metal attachment Insulating tube. Despite these common features, materials and structures used by different manufacturers used may be different.

Although the hollow composite insulators have been used for various purposes, but these insulators on determining the size and lack of experience are still experimental.

1 Scope

This standard applies to the production of resin-impregnated fibers bear the load of the insulating tube, the elastic material (such as silicon rubber or ethylene propylene rubber) Production the umbrella cover (outside the insulating tube) and metal accessories insulating tube constituting both ends of the hollow composite insulator (hereinafter referred to as "insulators"). this Insulator defined in the standard for compression of internal pressurization or both. They are used for rated voltages higher than 1000V, the frequency is not high AC voltage at 100Hz run outdoors or indoor electrical equipment or the rated voltage higher than 1500V DC device.

The purpose of the standard is.

- Definitions of the terms used;
- Specified test methods;
- Specified acceptance criteria.

This standard does not specify the type of test or contamination test impulse voltage or frequency voltage, because the withstand voltage insulator not own characteristics, Instead insulator eventually became a member of the characteristics of electrical equipment.

Note 1: The internal pressure is the persistent gas pressure greater than 0.05MPa (0.5bar) gauge. The gas may be dry air or an inert gas, such as sulfur hexafluoride, nitrogen or a mixture of these gases.

Note 2: There is no internal pressure refers to a gas or liquid pressure less than or equal to 0.05MPa (0.5bar) gauge. Hydrostatic pressure exceeds 0.05MPa not negotiable the same test procedure.

Note 3: The insulator is generally used in electrical equipment in the following (but not limited to).

- a) the circuit breaker;
- b) load switch;
- c) isolation switch;
- d) grounding switch;
- e) transformers and power transformers;
- f) casing.

Related equipment Commission may prescribe additional tests.

2 Normative references

The following documents contain provisions reference and become the standard terms of this standard. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents, undated reference documents, the latest versions apply to this standard.

GB/T 1182-1996 Geometrical tolerancing - Generalities, definitions, symbols, indications on drawings (eqv ISO 1101:1996) GB 1984-2003 high voltage AC circuit breaker (IEC 62271-100:2001, MOD) GB/T 4585-2004 high-voltage insulators for ac systems - Artificial pollution tests (IEC 60507:1991, IDT) GB/T 8287.1-1998 High voltage post insulators - Part 1. Technical conditions (neq IEC 60168.1994) GB/T 11020-1989 Determination of solid electrical insulating materials test method after combustion properties of the source of ignition is exposed (Eqv IEC 60707. 1981) GB/T 11022-1999 high-voltage switchgear and control equipment standard common technical requirements (eqv IEC 60694:1996) GB/T 16927.1-1997 high voltage test techniques Part 1. General test requirements (eqv IEC 60060-1. 1989) Above 1000V ac overhead lines with composite insulators definitions, test methods GB/T 19519-2004 and nominal