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

GB/T 12747-1991

Replacing GB/T 12747.1-2004

Shunt power capacitors of the self-healing type for a.c. systems having a rated voltage up to and including 1 000 V -- Part 1: General -- Performance, testing and rating -- Safety requirements -- Guide for installation and operation

(English Translation)

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Foreword

GB/T 12747 "1000V and below nominal voltage AC power system with self-healing shunt capacitor" is divided into two parts.

--- Part 1. General guidelines for performance, testing and quota safety installation and operation guidelines;

--- Part 2. Aging test, self-healing test and destruction test.

This section GB/T 12747 Part 1.

This section according to GB/T 1.1-2009 given rules.

This Part replaces GB/T 12747.1-2004 "self-healing parallel capacitors for AC power systems of nominal voltage 1kV and below Part 1 General guidelines for performance, testing and quota safety requirements for installation and operation ", compared with GB/T 12747.1-2004 main technology the changes are as follows.

--- Updated normative references (see Chapter 2, 2004 version Chapter 2);

--- The contents of the test conditions were modified (see 5.2, version 5.24 of 2004);

--- Modify the thermal stability test qualified to determine the conditions (see Chapter 13,

2004 version of Chapter 13);

--- The maximum allowable voltage content has been modified (see Chapter 20, 2004 version of Chapter 20);

--- In the environmental protection increased the terminal material safety requirements (see Chapter 24).

This section uses the translation method identical with the International Standard IEC 60831-1:2014 "1000V AC nominal voltage and below the power system Self-healing shunt capacitors - Part 1. General guidelines for performance, testing and rating safety - Installation and operation (English version).

The documents of our country that are consistent with the corresponding international documents that are normative references in this section are as follows.

High voltage test techniques - Part 1. General definitions and test requirements (IEC 60060-1.

2010, MOD)

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

--- Normative references will be adjusted according to the provisions of GB/T 1.1.

This part is proposed by China Electrical Equipment Industry Association.

This part of the National Power Capacitor Standardization Technical Committee (SAC/TC45) centralized.

This section is drafted unit. Xi'an High Voltage Apparatus Research Institute Co., Ltd., Ningbo Xin Rong Electric Technology Co., Ltd., Zhejiang Jiushe Electric Ltd., Xi'an West Power Capacitor Co., Ltd., Hefei Warwick Automation Co., Ltd., Xiamen Farah Electronics Co., Ltd., Refers to the Group Co., Ltd. State Grid Anhui Electric Power Company Electric Power Research Institute, Shenzhen Sanhe Power Technology Co., Ltd., Anhui Copper Peak Power Co., Ltd. capacitor subsidiary, Shanghai Haoyue Electric Co., Ltd., Zhejiang Wald Power Electronics Co., Ltd., New Northeast Electric Group Power Capacitor Co., Ltd., Jiangsu Modern Power Technology Co., Ltd., Zibo Leibo Power Capacitor Co., Ltd., Delixi Electric has Co., Ltd., Nantong Panyu Electronic Technology Co., Ltd., Ningguo Yuhua Electric Co., Ltd., Shanghai Yong Jin Electric Group Co., Ltd., Zhejiang Weiss Kang Electric Co., Ltd., Xi'an Huachuo Power Capacitor Co., Ltd., Zhejiang Taizhou Special General Capacitor Co., Ltd.

1 Scope

This section GB/T 12747 applies specifically to improve the nominal voltage of 1000V and below, the frequency of 15Hz ~ 60Hz to pay Capacitor cells and capacitor banks for power

factor of flow power systems.

This section also applies to capacitors used in power filter circuits. Additional definitions, requirements and tests for power filter capacitors are attached Record given in A.

This section does not apply to the following capacitors.

- Nominal voltage 1000V and below AC power system with non-self-healing shunt capacitor;
- Nominal voltage above 1000V AC power system with shunt capacitor;
- In the frequency of 50kHz below the operation of the induction heating device capacitors;
- Series capacitor;
- AC motor capacitor;
- Coupling capacitors and capacitor divider;
- Power electronic capacitors;
- Fluorescent and discharge lamps with small AC capacitors;
- Suppression of radio interference capacitors;
- Used in a variety of electrical equipment and as part of the capacitor;
- In the DC voltage superimposed on the use of AC voltage capacitors.

All accessories, such as insulators, switches, transformers, fuses, etc., shall comply with the relevant standards which are not covered by this Part Points within.

The purpose of this section is.

- a) Set forth uniform rules on performance, testing and quotas;
- b) Describe special safety rules;
- c) provide installation and operation guidelines.

2 Normative references 1)

1) IEC 60831-1:2014 Normative references IEC 60269-1:2006 did not appear in the full text, so in accordance with the provisions of GB/T 1.1 in this Part of the be deleted.

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 5169.12-2013 Fire hazard testing for electric and electronic products Part 12.

Glow/hot wire basic test methods Glowing wire flammability index (GWFI) test method (IEC 60695-2-12:2010, IDT) Self - healing shunt capacitors for ac power systems of nominal voltage 1000V and below - Part 2. GB/T 12747.2-2017.

Aging test, self-healing test and destruction test (IEC 60831-2:2014, IDT)