

ICS 29.120.70

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

GB/T 14598.10-2012

Replacing GB/T 14598.10-2007

**Measuring relays and protection equipment -- Part 22-4:
Electrical disturbance tests -- Electrical fast transient/burst
immunity test**

(English Translation)

Issued on: January 1, 1970

Implemented on: January 1, 1970

Issued by: Standardization Administration of China

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Test port 1 for measuring relays and protection equipment

Foreword

GB/T 14598 "for measuring relays and protection equipment" is divided into several parts.

--- Part 1. Electrical relays - Part 23. Contact performance;

--- Part 3. Electrical relays - Part 5. Measuring relays and protection equipment insulation coordination requirements and tests;

--- Part 4. Electrical relays Part XIV. Priority value of the electrical contacts of the relay contact life test load;

--- Part 5. Electrical relays - Part 15. Electrical characteristics of relay contacts life testing of test equipment;

--- Part 6. Electrical relays - Part 18. There are no size or generic relay;

--- Part 7. Electrical relays - Part 3. Single input dependent or independent time energizing quantity measuring relays;

--- Part 8. Electrical relays - Part 20. Protection system;

--- Part 9. 22-3 metric part relays and protection equipment. Electrical disturbance tests --- radiated electromagnetic field immunity;

- Part 10. 22-4 section for measuring relays and protection equipment. Electrical disturbance tests - Electrical fast transient/burst immunity Test;
- Part 11. Part 11 for measuring relays and protection equipment. Auxiliary power port voltage dips, short interruptions, voltage variations and ripple;
- Part 13. Electrical relays - Part 22-1. Electrical disturbance tests for measuring relays and protection 1MHz pulse device Immunity test;
- Part 14. Measuring Part 22-2 relays and protection equipment. Electrical disturbance tests --- electrostatic discharge test;
- Part 15. Electrical relays - Part 8. Thermal electrical relays;
- Part 16. Electrical relays - Part 25. Electromagnetic emission tests measure relays and protection equipment;
- Part 17. Electrical relays - Part 22-6. Measuring relays and protection equipment - Electrical disturbance tests --- RF field sense should be conducted disturbances immunity;
- Part 18. Measuring relays and protection equipment - Part 22-5. Electrical disturbance tests - Surge immunity test;
- Part 19. Electrical relays - Part 22-7. Measuring relays and protection equipment - Electrical disturbance tests --- frequency immunity Test;
- Part 20. Electrical relays - Part 26. Measuring relays and protection equipment electromagnetic compatibility requirements;
- Part 27. Part 27 measurement relays and protection devices. product safety requirements;
- Part 300. Computer transformer protection equipment requirements;
- Section 301. Computer generator transformer fault recorder technology requirements;
- Part 303. Digital motor protection devices General.

This section GB/T 14598 Part 10.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 14598.10-2007 "Electrical relays - Part 22-4. Electrical measuring relays and protection equipment

--- Electrical interference test fast transient/burst immunity test ", compared with the GB/T 14598.10-2007, the main technical changes are as follows.

--- Standard name becomes "Part 22-4 for measuring relays and protection equipment. Electrical disturbance tests - Electrical fast transient/burst Immunity test ";

--- Repetition rate to test part of the voltage (5 or 100) $(1 \pm 10\%)$ kHz.

Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB/T 4365-2003 Electrotechnical terminology Electromagnetic compatibility [IEC 60050 (161).1990, IDT].

This section uses the translation method is equivalent to using IEC 60255-22-4:2008 "Part 22-4 for measuring relays and protection equipment. Electrical Sao Test for immunity Electrical fast transient/burst immunity test. " this part is proposed by the China Electrical Equipment Industrial Association.

This part of the National measuring relays and protection equipment Standardization Technical Committee (SAC/TC154) centralized.

This section is drafted. Nanjing NARI-RELAYS Electric Co., Guodian Nanjing Automation Co., Ltd., Xuchang smart grid equipment Test and Research Institute, XJ Electric Co., Ltd., Beijing Sifang Automation Co., Ltd., Xuchang Cape Electrical Testing Institute, beads Sea Wanlida Electric Co., Ltd., Beijing Purple Control Co., Ltd., Dongfang Electronics Co., Ltd., integrated into an electronic Co., Ltd., Shanghai Relay Co., Ltd., Hebei North Heng Electric Co., Ltd., Shanghai Electric Power Automation Tianzheng tomorrow Limited, ABB (China) have Limited, Schneider Electric (China) Investment Co., Ltd., Jiang Su Jinzhi Technology Co., Ltd., Siemens Power Automation Limited.

1 Scope

GB/T 14598 in this section to GB/T 17626.4-2008 basis, refer to the appropriate part of this publication, it provides for electrical fast General requirements for fast transient immunity test. These measuring relays and protection equipment tests for electric power used by the system, including those Apparatus for use with control, monitoring and process interface equipment.

Purpose of the test is to verify the test was repeated and the apparatus is energized by the subject, such as inductive loads, relay contact bounce caused by of Fast Transient (burst) whether the harassment work correctly.

The requirements of this section apply to new measuring relays and protection equipment, all the tests only type testing.

The purpose of this section is to provide.

- The definitions of terms used;
- test severity;
- test equipment;

- Test configurations;
- test procedures;
- acceptance criteria;
- test report.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 14598.2-2011 metric Part 1 relays and protection equipment. General requirements (IEC 60255-1:2009, IDT) GB/T 17626.4-2008 Electromagnetic compatibility - Testing and measurement techniques - Electrical fast transient burst immunity test (IEC 61000-4-4:2004, IDT) IEC 60050-161 International Electrotechnical Vocabulary - Part 161. Electromagnetic compatibility (International Electrotechnical Vocabulary. Chapter 161. Electromagnetic compatibility)

3 Terms and Definitions

The following terms and definitions apply to this document.

Subjects means equipment under test; EUT is means tested. It can be a measure of the relay or a protection device.

Auxiliary equipment Provision of equipment for the desired signal is a pilot plant work, and are used to verify the performance of the pilot plant equipment.