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GB/T 14598.151-2012

Measuring relays and protection equipment -- Part 151: Functional requirements for over/under current protection

量度继电器和保护装置 第151部分：过/欠电流保护功能要求

(English Translation)

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Foreword

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

--- GB/T 14598.1 "Electrical relays - Part 23. Contact performance";

--- GB/T 14598.3 "Electrical relays - Part 5. Measuring relays and protection equipment insulation coordination requirements and testing";

--- GB/T 14598.4 "Electrical relays - Part 14. Preferred values \u200b\u200bfor electrical relay contacts Contact load life test";

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--- Part 15 GB/T 14598.5 "Electrical relays. characteristic electrical relay contacts life test test equipment specification";

--- GB/T 14598.6 "Electrical relays - Part 18. There are no size or universal relay";

--- GB/T 14598.7 "Electrical relays - Part 3. dependent or single input energizing quantity measuring relays with independent time";

--- GB/T 14598.8 "Electrical relays - Part 20. Protection System";

--- GB/T 14598.9 "metric Part 22-3 relays and protection equipment. Electrical disturbance tests - Radiated electromagnetic field disturbance test";

--- GB/T 14598.10 "Section 22-4 for measuring relays and protection equipment. Electrical disturbance tests - Electrical fast transient/burst Immunity test ";

--- GB/T 14598.11 "Part 11 for measuring relays and protection equipment. Auxiliary power port voltage dips, short interruptions, power and ripple voltage change ";

--- GB/T 14598.13 "Electrical relays - Part 22-1. Electrical disturbance tests measure relays and protection equipment 1MHz burst immunity test ";

--- GB/T 14598.14 "measuring relays and protection equipment - Part 22-2. Electrical disturbance tests - Electrostatic discharge tests";

--- GB/T 14598.15 "Electrical relays - Part 8. Thermal electrical relays";

--- GB/T 14598.16 "Electrical relays - Part 25. Electromagnetic emission tests for measurement relays and protection devices";

--- GB/T 14598.17 "Electrical relays - Part 22-6. Electrical disturbance tests for RF relays and protection equipment Field-induced immunity to conducted disturbances ";

--- GB/T 14598.18 "measuring relays and protection equipment - Part 22-5. Electrical disturbance tests - Surge immunity test";

--- GB/T 14598.19 "Electrical relays - Part 22-7. Electrical disturbance tests for measurement and protection relay station frequency Immunity test ";

--- GB/T 14598.20 "Electrical relays - Part 26. Measuring relays and protection equipment electromagnetic compatibility requirements";

--- GB 14598.27 "measuring relays and protection equipment - Part 27. Product safety requirements";

--- GB/T 14598.151 "Section 151 metric relays and protection equipment. over/under current protection requirements";

--- GB/T 14598.300 "microcomputer transformer protection devices General requirements";

--- GB/T 14598.301 "microprocessor-based generator and transformer fault recorder

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technology requirements." this section GB/T 14598 Part 151.

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

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

--- GB/T 14598.2-2011 metric Part 1 relays and protection equipment. General requirements (IEC 60255-1:2009, IDT).

This section uses the translation method identical with IEC 60255-151:2009 "Measuring relays and protection equipment - Part 151. Over/under power Current protection requirements. " this part is proposed by the China Electrical Equipment Industrial Association.

This section relays and protection equipment Standardization Technical Committee (SAC/TC154) is administered by the national measure.

This section is drafted. purple Control Co., Ltd., Xuchang smart grid equipment Test and Research Institute, Nanjing NARI-RELAYS Electric Co., Beijing Sifang Automation Co., Ltd., Guodian Nanjing Automation Co., Ltd., XJ Electric Co., Ltd., Xuchang Cape Electrical Testing Institute, integrated into Electronics Co., Ltd., Dongfang Electronics Co., Ltd., Zhuhai Wanlida Electric Co., Ltd., Hebei North Heng Electrical Technology Co., Ltd. Shanghai relay, Schneider Electric (China) Investment Co., Ltd., ABB (China) Limited Secretary Jiang Su Jinzhi Technology Co., Schneider Electric (China) Investment Co., Ltd. Shanghai Branch, Shenzhen NARI Technologies Co., Chongqing New Century Electric Co., Ltd.

1 Scope

This section provides the over/under current relay of minimum requirements. This section includes protection, measurement technology characteristics and delay characteristics specification.

This section applies to factors affecting the accuracy of the steady-state and dynamic performance, including test methods for testing the performance and accuracy.

This section covers the over/under current functions are as follows.

IEEE/ANSIC37.2

Function code

IEC 61850-7-4

Logical nodes

Instantaneous phase overcurrent protection 50 PIOC Delay phase overcurrent protection 51 PTOC Transient earth fault protection 50N/50G PIOC Delayed earth fault protection

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51N/51G PTOC Overcurrent or negative sequence current unbalance protection 46 PTOC Phase undercurrent protection 37 PTUC Voltage controlled overcurrent protection 51V PVOC this section does not include IEC 60255-8 specified in electrothermal relays. Measuring relays and protection equipment required by the General IEC 60255-1 requirements.

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.

IEC 60044 (all parts) instrument transformers (Instrumenttransformers) IEC 60050-447 International Electrotechnical Vocabulary Chapter 447. Measuring relays (InternationalElectrotechnicalVocabula-ry-Part 447. Measuringrelays) IEC 60255-1 Part 1 measurement relays and protection equipment. General requirements (Measuringrelaysandprotection equipment-Part 1. Commonrequirments)

3 Terms and Definitions

The following terms and definitions apply to this document.

Time - characteristic values \u200b\u200bof the theoretical curve theoreticalcurveoftimeversuscharacteristicquantity A graph showing the relationship between the theory of operation time and its characteristic values.

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