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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 14598.127-2013

Measuring relays and protection equipment -- Part 127: Functional requirements for over/under voltage protection

量度继电器和保护装置 第127部分：过/欠电压保护功能要求

(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 14598.2 metric Part 1 relays and protection equipment. General requirements;

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

--- GB/T 14598.4 Electrical relays Part XIV. Endurance test for electrical relay contacts - contact loads excellent First value;

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

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

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

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

--- GB/T 14598.11 metric Part 11 relays and protection equipment. Auxiliary power port voltage dips, short interruptions, power Pressure variations and ripple;

--- GB/T 14598.13 Electrical relays - Part 22-1. Electrical disturbance tests for measuring 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 measure relays and protection equipment;

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

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

--- GB/T 14598.19 Electrical relays - Part 22-7. Measuring relays and protection equipment

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- Electrical disturbance tests - frequency Immunity test;

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

--- GB 14598.27 metric Part 27 relays and protection devices. product safety requirements;

--- GB/T 14598.127 metric Part 127 relays and protection devices. Over/under voltage protection requirements;

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

--- GB/T 14598.300 microprocessor transformer protection equipment requirements;

--- GB/T 14598.301 microprocessor-based generator and transformer fault recorder technology requirements;

--- GB/T 14598.303 digital motor protection devices General.

This section GB/T 14598 Part 127.

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

This section uses the translation method identical with IEC 60255-127:2010 "Measuring relays and protection equipment - Part 127. Over/under power Voltage protection function requirements. " 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 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. Beijing Purple Control Co., Ltd., Xuchang smart grid equipment Test and Research Institute, Nanjing NARI-RELAYS Electric Co.

Company, 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 Company Jiang Su Jinzhi Technology Co., Schneider Electric (China) Investment Co., Ltd. Shanghai Branch, Shenzhen NARI Technologies Co.

Secretary, Chongqing New Century Electric Co., Ltd.

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1 Scope

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

This section specifies the 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/undervoltage functions are as follows.

IEEEStdC37.2

Function code

IEC 61850-7-4

Logical nodes

Phase undervoltage protection 27 PTUV Positive sequence undervoltage protection 27D PTUV Overvoltage protection 59 PTOV the remaining/residual overvoltage protection 59N/59G PTOV Negative sequence/unbalance overvoltage protection 47 PTOV Measuring relays and protection equipment - General requirements according to the provisions of IEC 60255-1.

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 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.

Upper limit and lower limit operation time curve curvesofmaximumandminimumlimitsoftheoperatetime Time - characteristic values \u200b\u200bof the theoretical curve on both sides of the limit error curve, representing each characteristic value corresponding to the maximum, the minimum operating time.

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