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

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**High-voltage switchgear and controlgear -- Digital interfaces
based on IEC 61850**

高压开关设备和控制设备 基于IEC 61850的数字接口

(English Translation)

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Foreword

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

This revised standard adopts IEC 62271-3:2006 "high-voltage switchgear and control equipment Part 3. IEC 61850 is based on digital interface".

This standard and IEC 62271-3:2006 The main differences are.

--- Range "NOTE 2", "For the range of the rated voltage $\leq 52.5\text{kV}$," according to our conditions "for the rated voltage $\leq 40.5\text{kV}$ within range ";

--- Terms and definitions of the sequence number had been changed since the original definition of the term before (3.7) was quoted on it use. This standard IEC 62271-3 in 3.8 IED to 3.1 IEDs, the original number by 3.1 to 3.7 Delay times;

--- Appendix A, the "basic standard test is the current IEC 62271 series of standards" to "basic standards test is current Related series of standards, "because according to our conditions, IEC 62271 series does not necessarily correspond to a national standard series;

--- Appendix C, Table C.3 after the injection is AC_DLN_M notes, in fact, that content first appeared in Table C.1, so the move to the Note after table C.1.

The standard proposed by China Electrical Equipment Industrial Association.

This standard by the national high-voltage switch equipment Standardization Technical Committee (SAC/TC65) centralized.

1 Scope

This standard specifies the rest of the high-voltage switchgear and control equipment as well as their equipment and substations constructed and digitally through Letters and special equipment for their testing requirements. The digital communication device can instead of metal wires in parallel and can be integrated into high-voltage switchgear and control equipment and complete sets of equipment, can be used as an external device so that the existing switchgear, control equipment and complete sets of equipment and IEC 61850 compatible.

This standard applies to the IEC 61850 series of product standards. It is used to deal with a serial communication interface with the follow IEC 61850 standard Switchgear, control equipment and relevant parts of the equipment. In particular, it defines.

a) in accordance with IEC 61850 information model to support selection switchgear, control

equipment and complete sets of equipment;

b) switching equipment, control equipment, and equipment for package of communication services should support the consistency of classification;

c) type test and routine testing switchgear, control equipment and complete sets of equipment modifications and extensions should be based on serial communication interface Requirements;

d) To achieve the switching equipment on-line monitoring of the IEC 61850 object model carried expansion.

Note 1: The purpose is to allow the improved object model IEC switchgear-line monitoring device 61850 and IEC 61850 for future developments coincide, when After both the organic integration of the relevant parts be removed from the standard.

This standard is based on IEC 61850. Used for high voltage switchgear, control equipment and complete sets of equipment of digital communications equipment made specific Requirements and related test requirements.

Related switchgear standard plus in this standard supplement widely applicable technical requirements.

Note 2: For the range of the rated voltage $\leq 40.5\text{kV}$, and now there is little interface with digital switching equipment. This is usually not integrated digital switching equipment through Communication interface, if you want to develop such products, the basis having this standard.

Note 3: The communication interface standard designed to improve interoperability. Since there is no interchangeability requirements, which are not present interchangeability standards and the IEC 61850 standard norm Enclosed within.

Note 4: For substation communications and related terms, definitions and models usually refer to IEC 61850 series of standards and requirements outlined goals. IEC 61850-1.

Modeling See IEC 61850-7-1.

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.

GB/T 2900.13-2008 Electrotechnical terminology credibility and quality of service (IEC 60050-191:1990, IDT) GB 3804-2004 3.6kV ~ 40.5kV high voltage AC load switch (IEC 60265-1:1998, MOD) GB/T 7424 (all parts) total cable specification (IEC 60794 (all parts)) GB/T 9387.1-1998 Information technology - Open Systems Interconnection - Basic Reference Model - Part 1. Basic model (idt ISO/IEC 7498-1:1994) GB/T 11022 high-voltage switchgear and control equipment standard common technical requirements (GB/T

11022-2011, IEC 62271-1.

2007, MOD)

GB/T 11594-2009 public data networks of data terminal equipment (DTE) and data circuit terminating swap power equipment (DCE) between Road Definition Table (ITU-TV.24.2000, IDT)