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

GB/T 21207-2007

Replacing GB/T 21207-2007

**Low-voltage switchgear and controlgear -- Device profiles for
networked industrial devices -- Part 1: General rules for
development of device profiles
(English Translation)**

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Foreword

GB/T 21207 "Low-voltage switchgear and control equipment for networked industrial devices" is divided into the following two parts.

--- Part 1. General preparation device description;

--- Part 2. Root device starters and similar equipment description.

This section is GB/T Part of 121,207.

This section Press GB/T 1.1-2009 given rule drafting.

This Part replaces GB/T 21207-2007 "low-voltage switchgear and control equipment for networked industrial devices basic principles." this section compared with the GB/T 21207-2007, the main technical changes are as follows.

--- 3 "Terms, definitions, abbreviations and symbols," adding "functional elements" and "General device description" is defined; modification "services" definition;

--- 4.3.2 "Creating a manufacturer device description describes the use of root device" to add the following requirements. root device should not be reused description Element name as the name of the other additional element, whether it is an essential element or optional elements;

--- 5 "Use device description template to create a root device description" to add 5.4 "complex data types (root device description)" and 5.7 "functional elements Su (root device model) "; 5.6" parameter group (the root device description), "added 5.6.5" requirement (necessary) "clause;

--- 6 "Creating root device description describes the manufacturer device" in a corresponding increase in the 6.5 "device description root complex data types real Now ", 6.6" complex data types (manufacturer-specific), "6.11" to achieve functional elements of the root device description "and 6.12" functional elements (Manufacturer-specific) "requirement content.

This section uses the translation method is equivalent to using IEC 61915-1:2007 "Low-voltage switchgear and control equipment for networked industrial devices Part 1. General preparation device description. " Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB 3100-1993 International System of Units and Its Application (eqv ISO 1000:1992) this part is proposed by the China Electrical Equipment Industrial Association.

The low-voltage electrical part by the National Standardization Technical Committee (SAC/TC189) centralized.

This section is responsible for drafting unit. Shanghai Electric Apparatus Research Institute, Shanghai Electric Technology Co., Ltd. Electric Division.

Participated in the drafting of this section. Changshu Switchgear Manufacturing Co., Ltd. People Electric Group Co., Ltd., Zhejiang Jiangke Feng Electronics Co., Ltd., Electrical equipment detected by the sea.

Introduction

The purpose of this section is to provide a framework for the respective product standards technical committees can use this framework to specify equipment within its scope description.

Note: This framework based on IEC/T R62390 principle of "universal automatic device description Guidelines" provisions, and with reference to ISO 15745 "Industrial automation systems and integration Open systems application integration framework "to develop.

Description defines a set of common functions (data and performance) for a specific industry in a class of devices for the system designer, Systems integrators and maintenance personnel in the processing apparatus based on the description, the configuration does not require special tools. Description also provides information on the device Consistency of terminology and structure functions.

GB/T 21207 in this section (Section 1) provides for the preparation of the device described in General networked industrial equipment, including the need for universal Seek and recommend applications, such as interactive text templates and language files. This allows for the description of different types of devices can maintain a consistent message Piece structure.

Product Standards Technical Committee can use General GB/T 21207 provisions of this Part to the provisions of their own facilities "root device description" of the Information specified in the description should make their products can be used on any network. This prompted a series of corresponding device file is consistent Sex. These describe the root device will be enacted in the subsequent GB/T 21207 series of standards.

This section also provides a common framework for the manufacturer or other organization can be characterized by its network equipment.

Manufacturers or other organizations may choose with their roots in the description of each product standard equipment for all types of technical committees root device as defined in Product consistent document as a basis for the preparation of the device description; use General GB/T 21207 to carry out the provisions of this part of the device description Specific extensions. Or they can just to prepare their own devices described in accordance with General. These manufacturers device description file it will be published in a separate product data.

This section also helps independent of the network application software to write.

Low-voltage switchgear and control equipment Networked industrial devices Part 1.
General preparation device description

1 Scope

GB/T 21207 standard is designed to improve equipment, network tools and applications interoperability.

GB/T 21207 provisions of this part of the universal model framework for access to the network of industrial equipment, and provides a description of such a formation, Independent of the network with templates. The framework according to IEC/T R62390.2005 stipulated the principles, and with reference to the development of ISO 15745.

Note 1: The device description format compatible with the provisions of this section by the bit and byte access network equipment.

This section applies to root the device description, general description of the device description and special equipment. Root device will be described in GB/T 21207 series marked Subsequent sections of quasi-enacted.

Note 2: This section is dedicated to products for GB 14048 involve.

Note 3: Encourage user organizations (such as the Union) apply the rules specified in this to develop for "universal device description" of their own organization.

Users (manufacturers and other organizations) should root device described in this part of the rules and regulations of the combined use. This section allows Root user equipment described and/or generic device description extended. If there is no appropriate root device description, the user can use the provisions of this Part Rules to develop generic or specific device descriptions.

To facilitate the use described by the network tools and applications, this section recommend to characterize the device descriptions using descriptive language exchange.

Note 4: This section refers to the type of device may be such as lights, push buttons, limit switches and other simple devices, it can be complex devices with multiple bytes of information, such as Motor controller, semiconductor and other motor starter.

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 13000-2010 Information technology - Universal Multiple-Octet Coded Character Set (UCS) (ISO/IEC 10646:2003, IDT) GB/T 15969.3-2005 programmable controllers Part 3. programming languages \u200b\u200b(IEC 61131-3:2002, IDT) GB/T 17966-2000 microprocessor system binary floating-point arithmetic (IEC 60599. 1989, IDT) ISO