

CCS N 15



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

GB/T 40214-2021

**Document kinds for electrical and instrumentation projects in
the process industry**

Issued on: May 21, 2021

Implemented on: December 1, 2021

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms, definitions, abbreviations and abbreviations.....	2
3.1 Terms and definitions	2
3.2 Abbreviations and acronyms	3
4 Compliance	3
4.1 File	3
4.2 Document requirements	4
5 File type	4
Appendix A (informative appendix) Names of document types in multiple languages	15
Appendix B (informative appendix) Example	22
References	63

Foreword

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

This standard is equivalent to the adoption of IEC 62708.2015 "Document Types for Electrical and Instrumentation Engineering in the Process Industry".

The Chinese documents that have a consistent correspondence relationship with the normatively cited international documents in this standard are as follows.

---GB 3836.4-2010 Explosive atmosphere Part 4.Equipment protected by intrinsic safety type "i" (IEC 60079-11.

2006, MOD);

---GB 3836.14-2014 Explosive atmosphere Part 14.Site classification Explosive gas atmosphere (IEC 60079-10-1.

2008, IDT);

---GB/T 4728 (all parts) graphical symbols for electrical diagrams [IEC 60617 (all parts)];

---GB/T 6988.1-2008 Preparation of documents for electrical technology Part 1.Rules (IEC 61082-1.2006, IDT);

---GB/T 15969.3-2017 Programmable Controller Part 3.Programming Language (IEC 61131-3.2013, IDT);

---GB/T 19016-2005 Quality Management System Project Quality Management Guidelines (ISO 10006.2003, IDT);

---GB/T 19678.1-2018 Compilation composition, content and representation method of instructions for use Part 1.General rules and detailed requirements

Seek (IEC 82079-1.2012, IDT);

---GB/T 20818.10-2017 Industrial process measurement and control data structure and elements in the process equipment catalog No. 10

Part. Basic Principles of Attribute Lists (LOPs) for Industrial Process Measurement and Control Electronic Data Exchange (IEC 61987-10.

2009, IDT);

---GB/T 22135-2019 The specific stages and milestones of the commissioning of electrical, instrumentation and control systems in the process industry

(IEC 62337.2012, IDT);

---GB/T 25928-2010 Process Industry Automation System Factory Acceptance Test (FAT), Site Acceptance Test (SAT), Current

Field Integrated Test (SIT) specification (IEC 62381.2006, IDT).

This standard was proposed by the China Machinery Industry Federation.

This standard is under the jurisdiction of the National Industrial Process Measurement and Control Standardization Technical Committee (SAC/TC124).

Drafting organizations of this standard. Southwest University, Xiamen Yudian Automation Technology Co., Ltd., Beijing Jinlishi Instrument Technology Co., Ltd., Xiamen An

East Electronics Co., Ltd., Shenzhen Wanxun Automation Co., Ltd., Hangzhou Automation Technology Research Institute Co., Ltd., Hanwei Technology Group Co., Ltd.

Co., Ltd., Shenzhen Biaoli Technology Development Co., Ltd., Chongqing Industrial Automation Instrument Research Institute, Zhejiang Zhongtuo Hekong Technology Co., Ltd., Shenzhen

Ertai Technology Co., Ltd., Shenzhen Xinwei Technology Development Co., Ltd., Tianjin Xuner Instrument Technology Co., Ltd., Chongqing Yutong System Software

Parts Co., Ltd., Hubei Nankong Instrument Technology Co., Ltd., Xi'an Youkong Technology Development Co., Ltd., Qingdao Automation Instrument Co., Ltd.,

Anhui Tiankang Group (Stock) Co., Ltd., Shanghai Modulus Instrument Co., Ltd., Shaanxi Chuangwei Technology Co., Ltd., Jiangsu Jack Instrument Co., Ltd.

Company, Xi'an Dongfeng Electric Co., Ltd., Jiangsu Huaxia Instrument Co., Ltd., Suowu

Electrical Equipment (Shanghai) Co., Ltd., Shanghai Enbang Automatic

Chemical Instrument Co., Ltd., Shenzhen Kelu Precision Instrument Co., Ltd., Hangzhou Pangu Electric Technology Co., Ltd., Jinan Ningtong Automation Technology Co., Ltd.

Co., Ltd., Taicang Boiler Automation Instrument Co., Ltd., Anhui Automation Instrument Co., Ltd., Hangzhou Zhenhua Instrument Co., Ltd., Ma'anshan City

Knight Instrument Technology Co., Ltd., Nanjing Keda New Control Instrument Co., Ltd., Sichuan Huikeda Instrument Manufacturing Co., Ltd., Chongqing Shulong Information Technology

Technology Co., Ltd., Chongqing Chuanyi Automation Co., Ltd., Rockwell Automation (China) Co., Ltd., Beijing Advantech Xingye Electronics

Technology Co., Ltd., Chongqing Institute of Science and Technology, Guodian Longyuan Electric Co., Ltd.

Introduction

The engineering in the process industry is promoted by international cooperation or group cooperation. Based on economic cost, professional expertise, industry license

For reasons such as certification, special authorization, or simple equipment use, the project is usually undertaken by multiple parties and completed in cooperation. This needs to be clear

Make sure to define the respective work content and responsibilities, and the file or document is the basis for defining the results of the respective work content between the partners.

If there is only one file name without further description of its form and content, then each partner is likely to follow

Interpretation of the work content by myself, from my own point of view to complete the project. Therefore, for each project, the definition of the relevant delivery documents is one

Important content. File names are used for files that are similar but have different details. This standard will select those customary terms as

The name of the file type, and delete the name of the file type that has been abolished.

The primary purpose of formulating this standard is to avoid misunderstandings and misinterpretation of documents, so as to reduce additional corrective work and clarification between collaborators.

Relevant expenses incurred during the cleanup.

The second purpose of formulating this standard is to provide the convenience of document

processing by using the IEC 61355 database. This standard will mention

Provide the name of the file type, the file type classification code specified by IEC 61355 and some templates.

In order to achieve these purposes, this standard specifies the names of separate file types, but it does not specify which files are necessary or acceptable.

Selected.

Electrical and instrumentation engineering in the process industry

File type

1 Scope

This standard defines specific documents and their basic content required for electrical and instrumentation engineering in the process industry.

This standard specifies the name of the document type and the mandatory content of the document type.

This standard covers the documents used in each stage of a project from concept to completion (see IEC 62337).

This standard includes engineering management and quality assurance documents.

This standard does not include project business management documents.

This standard provides document examples that are easy to reference, understand and use.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 26853.1-2011 Classification and code of complete sets of equipment, systems and equipment documents Part 1.Rules and classification tables

(IEC 61355-1.2008, IDT)

ISO 10006 Quality Management System Project Quality Management Guidelines (Quality management systems-Guidelines for

qualitymanagementinprojects)

ISO 10628 Flow diagrams for process plants-General rules (Flowdiagrams for process