

ICS 25.040.40

CCS N 10



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

GB/T 25928-2010

**Automation systems in the process industry -- Factory
acceptance test (FAT), site acceptance test (SAT), and site
integration test (SIT)**

过程工业自动化系统出厂验收测试（FAT）、现场验收测试（SAT）、现场综合测
试（SIT）规范

(English Translation)

Issued on: January 14, 2011

Implemented on: May 1, 2011

Issued by: Standardization Administration of China

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Foreword

This standard is identical with IEC 62381:2006 "industrial process automation systems --- factory acceptance test (FAT), site acceptance test (SAT), a comprehensive field test (SIT) Specification "(in English).

This standard is equivalent translation IEC 62381:2006, there was no difference in the technical content, for the convenience of users, with the structure of the text on appropriately adjusted, according to GB/T 1.1-2000 "Standardization Guide Part 1. Structure and rules are written standard" and GB/T 20000.2-2001. the relevant provisions of "Standardization Guide Part 2 rules of international standards" were editorial modify.

This standard is mainly made editorial changes as follows.

- a) Remove the preface to the international standards;
- b) "The document" to the "standard";
- c) according to GB/T 1.1-2000 column entry requirements (5.2.5), within the full range of punctuation column item regulate, and Two items listed in section 5.3.2 increases the number for identification.

The Standard Appendix A, Appendix B, Appendix C, Appendix D, Appendix E, Appendix F, Appendix G, Appendix H, Appendix I, Appendix J for information only appendix.

The standard proposed by China Machinery Industry Federation.

This standard by the national industrial process measurement and control Standardization Technical Committee (SAC/TC124) centralized.

Introduction

The current field of process control there is such a phenomenon, the period of the Project were asked to compress getting shorter, while the automatic control system but due to the complexity of the various reasons on the rise, these reasons include the increase relates to the use of communication layers and a variety of new technologies, such as now Field bus system.

Experience shows, owners, general contractors and subcontractors are often used to distinguish their commitment to the standard by consuming huge Gongben discussions and consultations will have Help improve the effectiveness and reduce the time to negotiate consultations, the parties can reach a consensus as soon as possible is responsible for their content.

Appendix to this standard contains the testing process may be used in form. These appendices form using Excel format. The standard purchase

After registration, users can copy these forms according to their needs, but the number should not exceed the number of replication specified.

For the pharmaceutical industry, or other highly specialized industrial applications, some special specifications, instructions and constraints existing file with the current the standard file act together.

Industrial process automation systems Factory Acceptance Test (FAT), site acceptance Test (SAT), a comprehensive field test (SIT) specification

1 Scope

This standard defines the factory acceptance test (FAT), site acceptance test (SAT) and site integration testing (SIT) procedures and specifications.

These tests are fully automated control system in order to prove compliance with standards.

Systems engineering and production activities before the test is not within the scope of this standard involved.

The content of this standard can be used as guidance in practical work for a variety of practical requirements of process, plant and equipment. Figure 1 depicts A typical sequence of events and activities throughout, Figures 2 and 3 shows the relationship between the various stages.

FAT prerequisite.

- Complete software development;
- To complete the system connection;
- Complete Supplier internal testing.

SAT prerequisite.

- System has been delivered to the Site;
- Installed correctly;
- System startup.

SIT prerequisite.

- Room --- system is properly connected;
- To complete the SAT.

Note: In fact, during the construction phase, once the basic components required to complete the installation and start the loop test.

Project nodes corresponding to the FAT 1, SAT and SIT typical sequence of events schematic

Figure 2 DCS subsystem SAT and SIT phase and phase relationship between the schematic