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

GB/T 34940.1-2017

**Static transfer systems (STS) -- Part 1: General and safety
requirements**

静态切换系统(STS) 第1部分：总则和安全要求

(English Translation)

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Foreword

GB/T 34940 "Static Switching System (STS)" is divided into the following sections.

- Part 1. General and safety requirements;
- Part 2. Electromagnetic compatibility (EMC) requirements;
- Part 3. Determination of performance methods and test requirements.

This section GB/T 34940 Part 1.

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

This section uses the translation method identical with IEC 62310-1-2005 "Static Switching System (STS) Part 1. General and safety requirements." the documents of our country that are consistent with the corresponding international documents that are normative references in this section are as follows.

- GB/T 2893.1-2013 Graphical symbols Graphical symbols Safety colors and safety signs Part 1. Safety signs and safety Fully labeled design principles (ISO 3864-1:2011, MOD)
- GB/T 4025-2010 man-machine interface logo identifies the basic and safety rules Indicator and operating device coding rules (IEC 60073:2002, IDT) Solid insulating materials - Resistance to tracking index and comparative tracking index - Determination of

method (IEC 60112).

2009, IDT)

--- GB/T 4208-2008 enclosure protection (IP code) (IEC 60529:2001, IDT)

--- GB 4943.1-2011 Information technology equipment safety Part 1. General requirements (IEC 60950-1:2005, MOD)

--- GB/T 5465 (all parts) Graphical symbols for electrical equipment (IEC 60417DB.2007, MOD)

--- GB/Z 6829-2008 Residual Current Surge Protector General Requirements (IEC/T R60755.2008, IDT)

--- GB/T 11021-2014 Electrical insulation heat resistance and representation (IEC 60085:2007, IDT) Automatic electrical controls for household and similar use - Part 1. General requirements (IEC 60730-1:2004);

2003, IDT)

--- GB/T 16273.1-2008 Graphical symbols for use in equipment - Part 1. General symbols (ISO 7000:2004, NEQ)

--- GB/T 16895.3-2004 Electrical installations of buildings Part 5-54. Selection and installation of electrical equipment Grounding configuration, Protective conductor and protective coupling conductor (IEC 60364-5-54:2002, IDT)

--- GB/T 16895.9-2000 Electrical installations of buildings Part 7. Requirements for special installations or locations Section 707. Number According to the handling equipment electrical equipment grounding requirements (IEC 60364-7-707:1984, IDT)

--- GB/T 16916.1-2014 Residual current operated circuit breakers (RCCB) for household and similar purposes without overcurrent protection Part 1. General rules (IEC 61008-1:2012, MOD)

--- GB/T 16917.1-2014 Residual current operated circuit breakers (RCBO) with overcurrent protection for household and similar purposes Part 1. General rules (IEC 61009-1:2012, MOD) High voltage test techniques - Part 1. General definitions and test requirements (IEC 60060-1.

2006, MOD)

--- GB/T 16935.1-2008 Insulation coordination of equipment in low-voltage systems - Part 1. Principles, requirements and tests (IEC 60664-1:2007, IDT)

--- GB/T 16935.3-2016 Insulation coordination of equipment within low-voltage systems Part 3. The use of coating, canning and molding Anti-fouling protection (IEC 60664-3:2010, IDT) this section made the following editorial changes.

- After the letter number column item "test b)" to "test a)" (see 4.2.1.1);
- Correct "(45/U) μF " to "(45/U) nF " and "(700/U2) μF " to "(700/U2) nF " (see 4.2.3.2);
- "S $\leq$ 800" corrected "S > 800" (see Table 2);
- According to 2.5 of IEC 60950-1:2001, the first paragraph of 4.2.12 is corrected to "limited by the AC mains power supply Source, or battery-powered and in the load at the same time by the AC power supply when charging the limited power supply should be equipped with isolation change Pressure device. "(See 4.2.12);
- Correct " $\leq 1000U_{oc}$ " to " $\leq 1000/U_{oc}$ " (see Table 9).

This part is proposed by China Electrical Equipment Industry Association.

This part of the National Power Electronic Systems and Equipment Standardization Technical Committee (SAC/TC60) centralized.

This part of the drafting unit. Guangdong Zhicheng Champion Group Co., Ltd., Huazhong University of Science and Technology, Xi'an Institute of Power Electronics, Xiamen Kehua Hengsheng Co., Ltd., China Power Supply Society, Qingdao Chuangtong Technology Development Co., Ltd., Renault (Changzhou) Electronics Co., Ltd., Zhejiang Kezheng Electronic Information Products Inspection Co., Schneider Electric Information Technology (China) Co., Ltd., Emerson Network Power Co., Zhuhai and Thailand Tan Technology Co., Ltd., Xi'an love to send Branch Power Electronics Co., Ltd., China Power Industry Association.

1 Scope

GB/T 34940 is suitable for stand-alone operation, scheduled to ensure continuous power supply load AC Static Switching System (STS). The system is two or multiple independent AC source automatically or manually interrupted or uninterrupted controlled switch.

This section GB/T 34940 specifies the general principles and safety requirements. Electromagnetic compatibility (EMC) requirements see GB/T 34940.2, certainty to methods and test requirements can see GB/T 34940.3.

The purpose of this section is to reduce the risk of fire and electric shock, as well as installation, operation and maintenance of equipment in the manner specified by the manufacturer Risk of personal injury.

This section includes the switching element and its control and protection components (if applicable) requirements, including access to STS and its accessories exchange the overall information of the grid.

STS in order to achieve the operation, control, protection, isolation of the necessary components or devices (such as circuit breakers, fuses, transformers, etc.) should meet the