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

GB/T 34940.2-2017

**Static transfer systems (STS) -- Part 2: Electromagnetic
compatibility (EMC) requirements**

静态切换系统(STS) 第2部分：电磁兼容性(EMC)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 2.

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

This section uses the translation method is equivalent to using IEC 62310-2:2006 "Static Switching System (STS) Part 2. Electromagnetic Compatibility (EMC) 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 4365-2003 Electrotechnical terminology Electromagnetic compatibility (IEC 60050-161:1990, IDT)

--- GB/T 6113.101-2016 Radio disturbance and immunity measuring apparatus and methods of measurement Part 1-1 - Radio Harassment and Immunity Measuring Equipment Measuring Equipment (CISPR16-1-1.2010, IDT)

- GB/T 6113.102-2008 radio disturbance and immunity measuring apparatus and measurement methods - Part 1-2 - Radio Harassment and Immunity Measurement Auxiliary Equipment Conducted Harassment (CISPR16-1-2.2006, IDT)
- GB/T 6113.105-2008 radio disturbance and immunity measuring apparatus and measurement methods - Part 1-5 - Radio Harassment and Immunity Measurement Equipment 30MHz ~ 1000MHz antenna calibration test site (CISPR16-1-5.2003, IDT)
- GB/T 9254-2008 Information technology equipment radio disturbance limits and measurement methods (IEC/CISPR22.2006, IDT)
- GB 17625.1-2012 electromagnetic compatibility limit harmonic current emission limit (equipment input current per phase $\leq 16A$) (IEC 61000-3-2:2009, IDT)
- GB/T 17626.5-2008 Electromagnetic compatibility test and measurement techniques surge (impact) immunity test (IEC 61000-4-5:2005, IDT)
- GB/T 17626.6-2008 electromagnetic compatibility test and measurement techniques RF field induced conduction disturbances immunity (IEC 61000-4-6:2006, IDT)
Electromagnetic compatibility (EMC) - Testing and measurement techniques - Power frequency magnetic field immunity test (IEC 61000-4-8).

2001, IDT)

- GB/T 18039.3-2003 Electromagnetic compatibility environment common low-voltage power supply system low-frequency conducted disturbances and signal transmission Capacitance level (IEC 61000-2-2:1990, IDT) this section made the following editorial changes.
- Correct the definition of "site" by "test at equipment site" to "site of use of equipment" (see 3.3.3);
- Correct the "input and output current" in paragraph 1 of 4.2 to "output current" (see 4.2);
- Correct the signal and control port surge (surge) "1kV5 6" to "1kVf" (see Table 5);
- Correct the power frequency magnetic field "Level 2 (10A/m)" to "Level 3 (10A/m)", "Level 3 (30A/m)" "Level 4 (30A/m)" (see 6.4);
- Correct "Chapter 4" to "A.4", "CISPR16-1-2 Chapter 5" to "CISPR16-1-2" (see A.6.5);
- Correct "10.6 CISPR22" to "10.7 in CISPR 22.2005" (see A.10.3);
- Removed "C2" (see Table B.2) that does not meet the definition of the table "Rated output current greater than 16A STS";
- Added the title of the article (see D.3.1, D.4.1 and D.4.2).

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 section drafted by. Emerson Network Power Co., Ltd., Guangdong Zhicheng Champion Group Co., Ltd., Xi'an Power Electronics Technology Research , Reynolds (Changzhou) Electronics Co., Ltd., Huazhong University of Science and Technology, China Power Supply Association, Xi'an love send Branch Power Electronics Co., Ltd., Zhuhai and Thailand Technology Co., Ltd., Xiamen Branch Wah Hengsheng Co., Ltd., Schneider Electric Information Technology (China) Co., Ltd., Zhejiang Branch is power Information Products Testing Co., Ltd., Qingdao Chong Tong Technology Development 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 for interrupted or uninterrupted controlled switchover.

GB/T 34940 includes the switching element and its control and protection components (if applicable) requirements, including the STS and its accessories Integrated information into the AC grid.

GB/T 34940 This section applies to the AC voltage does not exceed 1000V single-phase, two-phase and three-phase static switching system.

This section takes precedence over all aspects of common performance standards and requires no additional performance tests.

These requirements are selected to ensure that STS has adequate EMC levels in public or industrial locations. However, these levels can not cover extreme situations that can occur anywhere, but with a low probability of occurrence.

These requirements take into account the different test conditions necessary for the coverage of the STS physical size and power rating data.

Regardless of whether it is a unit of equipment or a combination of units, STS as a standalone product should meet the requirements of this section. But any power supply or the EMC phenomenon that occurs when the load is connected to the input or output of an STS device should not be taken into account.

This section does not apply to.

--- Switching DC source device;

--- Single AC source system;

--- Only use the electromechanical switching device to allow the interruption of the load