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

GB/T 25122.2-2010

**Railway applications -- Power convertors installed on board
rolling stock -- Part 2: Additional technical information**

轨道交通 机车车辆用电力变流器 第2部分：补充技术资料

(English Translation)

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Foreword

GB/T 25122 "rail rolling stock power converter" consists of two parts.

--- Part 1. Characteristics and test methods;

--- Part 2. Supplementary technical information.

This section GB/T 25122 "rail rolling stock power converter" Part 2.

This section uses the translation method is equivalent to using IEC 61287-2:2001 "rail rolling stock power converter Part 2. Complement Charge technical data '(in English).

For ease of use, this section made the following editorial changes.

--- "This International Standard" be replaced by "this section";

--- Instead of using as a decimal comma ",", " ";

--- Delete international standards foreword.

This section Appendix A normative appendix.

This section proposed by the People's Republic of China Ministry of Railways.

This part of the National electric traction equipment and systems Standardization Technical Committee (SAC/TC278) centralized.

This section is responsible for drafting unit. Zhuzhou CSR Times Electric Co., Ltd.

Participated in the drafting of this section. Zhuzhou National Engineering Research Center Co., Ltd., the new speed Yongji Electric Appliance Co., Ltd. Company Secretary, CSR Qingdao Sifang Locomotive Co., Ltd., China Academy of Railway Sciences, Institute of

Locomotive.

1.1 Scope

This section GB/T 25122 description of the rolling stock power electronic converter (such as an external commutation rectifier, since commutation rectifier, chopped Wave and inverter) of the basic circuit structure, control methods, work and performance. This section lists typical examples of charts and be on He said, but did not discuss all aspects of the converter.

This section is GB/T 25122.1-2010 additional technical information.

The main contents of this section is to calculate the electrical parameters, such as input/output voltage, input/output current, the current and voltage spectrum ripple as well as current and voltage harmonic current and voltage.

Category 1.2 converter this section shows the following types of converter, the basic structure is shown in 1.4.

a) direct converter.

1) External commutation rectifier;

2) self-commutated converter;

3) chopper;

4) Inverter;

b) indirect converter;

c) rolling stock and more supply converter.

1.3 Technical Information

1.2 The converter contains the following aspects.

a) species;

b) the circuit structure and basic properties;

c) the basic parameters;

d) control mode;

e) multiphase converter and multilevel converter;

f) analysis.

1.4 Converter parameters

The following data are given not only the parameters of the converter, but also a chart to explain how to calculate their values. Multi-level external commutated converter can be simplified as equivalent thereto two external commutated converter, parameters can be commutated converter from the equivalent of two to obtain. This section describes Simplify converter series method.

The following parameters are given converter.

a) converter output parameter

- 1) The average voltage and/or root-mean-square value of the voltage;
- 2) the average current and/or root-mean-square value of the current;
- 1) GB/T 25122.1-2010 modify using IEC 61287-1:2005.
- 3) harmonic voltage/current harmonics;
- 4) ripple voltage/current ripple.