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

GB/T 25890.5-2026

Replacing GB/T 25890.6-2010

**Railway applications - Fixed installations - DC switchgear - Part
5: DC switchgear assemblies**

轨道交通 地面装置 直流开关设备 第5部分：直流成套开关设备

(English Translation)

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References

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 5 of GB/T 25890 "DC Switchgear for Ground Installations in Rail Transit". GB/T 25890 has been issued.

The following parts were laid out.

---Part 1: General Provisions;

---Part 2: DC Circuit Breakers;

---Part 3: Indoor DC disconnect switches, load switches and grounding switches;

---Part 4: Outdoor DC disconnect switches, load switches and grounding switches;

---Part 5: DC Switchgear Assemblies;

---Part 7-1.Application Guidelines for Dedicated Measurement, Control, and Protection Devices for DC Traction Power Supply Systems;

---Part 7-2.Dedicated Measurement, Control, and Protection Devices for DC Traction Power Supply Systems. Isolation Current Transmitters and Other Current Measurements

equipment;

---Part 7-3.Dedicated Measurement, Control, and Protection Devices for DC Traction Power Supply Systems. Isolated Voltage Transmitters and Other Voltage Measurement Devices equipment.

This document replaces GB/T 25890.6-2010 "DC switchgear for ground installations in rail transit - Part 6: DC switchgear assemblies".

Compared with GB/T 25890.6-2010, the main technical changes in the "Relevant Equipment" standard, apart from structural adjustments and editorial modifications, are as follows.

- a) Added terms and definitions for internal arc, rated short-circuit current under internal arc, and the measured compartment (see 3.1, 3.2, 3.3);
- b) The grounding was changed (see 6.5, 2010 edition of 6.5);
- c) An additional requirement for the rated short-circuit current I_{Narc} under internal arcing conditions has been added (see 6.6.2);
- d) The test voltage in the electrical performance test has been changed to an AC voltage with a root mean square value of $2U_N$ (see 6.19, 2010 edition).

8.3.8);

- e) An internal arc type test item has been added (see Table 2 and 8.3.9);
- f) A method for testing under conditions where an electric arc is generated due to an internal fault has been added (see Appendix B).

This document is modified to adopt IEC 61992-6:2020 "DC switchgear for ground installations on rail transit - Part 6: DC switchgear assemblies".

"Shut down equipment".

This document has undergone the following structural adjustments compared to IEC 61992-6:2020.

---A basic requirement 6.5.1 has been added, and subsequent numbering has been adjusted accordingly;

---The first two paragraphs of section 6.12 in Chapter 6 correspond to the suspension section of 8.3.7 in IEC 61992-6:2020; sections 6.18.1 and 8.3.4.1 in Chapter 6 correspond to...

Section 8.3.4.1 of IEC 61992-6:2020, and sections 6.18.3 and 8.3.4.3 of Chapter 6 correspond to section 8.3.4.3 of IEC 61992-6:2020.

Sections 6.19 and 8.3.8 in Chapter 6 correspond to 8.3.8 of IEC 61992-6:2020;

---Chapter 8.2 corresponds to 8.1 in IEC 61992-6:2020; Chapter 8.1.2 corresponds to 8.2 in IEC 61992-6:2020.

This document differs technically from IEC 61992-6:2020. The specific technical differences and their reasons are as follows.

---EN50124-1 (see Chapter 4) has been replaced with GB/T 32350.1-2025 (normatively referenced), and GB/T 25890.3 has been replaced.

IEC 61992-3 (see 6.5.2, 6.10.4, 8.3.5.1) was replaced by GB/T 1408.1, replacing IEC 60243-1 (see 8.3.3.1).

GB/T 4208-2017 replaced IEC 60529:1989 (see 6.6.1, 8.3.6) to be applicable to my country's technical conditions, and added provisions for compliance with national standards.

Operability;

---The test voltage in the electrical performance test has been changed to an AC voltage with a root mean square value of 2UNE to meet the actual test requirements (see...).

6.19);

---The test was changed to inspection rules and test methods to adapt to my country's national conditions (see Chapter 8).

The following editorial changes have been made to this document.

---The file name has been changed;

---URLs have been removed from terms and definitions;

---References have been added.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the National Railway Administration.

This document is under the jurisdiction of the National Technical Committee on Standardization of Rail Transit Electrical Equipment and Systems (SAC/TC278).

Introduction

In the rail transit sector, DC switchgear is a crucial power transmission and distribution device in traction power supply systems, and its performance significantly impacts the traction power supply system.

The safe and reliable operation of [the system] is of great importance.

GB/T 25890 "DC Switchgear for Ground Installations in Rail Transit" is proposed to consist