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

GB/T 32580.4-2026

Replacing GB/T 32580.303-2016

**Railway applications - Fixed installations - High voltage AC
switchgear and transformers - Part 4: Voltage transformers**

轨道交通 地面装置 高压交流开关设备及互感器 第4部分：电压互感器

(English Translation)

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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 4 of GB/T 32580 "High-voltage AC switchgear and instrument transformers for ground installations in rail transit".

GB/T 32580 has published the following parts.

---Part 1: Circuit Breakers;

---Part 2: Disconnecting switches, grounding switches, and load switches;

---Part 3: Current Transformers;

---Part 4: Voltage Transformers;

---Part 5.27.5kV and 2x27.5kV metal-enclosed switchgear and controlgear.

This document replaces GB/T 32580.303-2016 "Special Requirements for AC Switchgear on Ground Installations of Rail Transit - Part 3-3" Section. "Single-phase Inductive Voltage Transformer for Dedicated Measurement, Control and Protection Devices of AC Traction Systems", related to GB/T 32580.303-2016 Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows.

- a) The scope has been changed (see Chapter 1, Chapter 1 of the 2016 edition);
- b) Terms and definitions have been changed (see Chapter 3, Chapter 3 of the 2016 edition);
- c) Changes have been made to the normal and special usage conditions (see Chapter 4, Chapter 4 of the 2016 edition);
- d) Features and applications have been removed (see Chapter 5 of the 2016 edition);
- e) Rated voltage and nominal voltage have been added (see 5.2 and 5.3);
- f) The rated insulation level has been changed (see 5.4, Chapters 6 and 7 of the 2016 edition);
- g) The ferromagnetic resonance was modified (see 5.11, Chapter 8 of the 2016 edition);
- h) Added requirements for liquids used in the equipment, requirements for solid materials used in the equipment, unified reference creepage distance for external insulation, corrosion, and fire.

Hazards, structural requirements for resin-cast voltage transformers, insulating oil performance requirements, short-circuit withstand capability, sealing performance, and mechanical strength requirements.

Please find the answers in sections 6.1, 6.2, 6.5, 6.7, 6.9, 6.11.2, and 6.12-6.15.

- i) Changes were made to the equipment's grounding requirements, enclosure protection rating, nameplate, transmitted overvoltage requirements, and wet testing of outdoor current transformers (see...).
- (6.4, 6.6, 6.8, 6.16, 7.1.3, Chapter 9 of the 2016 edition);
- j) The test methods have been changed (see Chapter 7, Chapters 10 and 11 in the 2016 edition);
- k) Added inspection rules (see Chapter 8);
- l) Added information provided during inquiries, bidding, and ordering (see Chapter 9);
- m) Added rules for transportation, storage, installation, operation, and maintenance (see Chapter 10);

- n) Enhanced security (see Chapter 11);
- o) Increased the product's environmental impact (see Chapter 12);
- p) Additional documentation has been added to accompany the product (see Appendix B).

This document is modified to adopt IEC 62505-3-3:2020 "Particular requirements for AC switchgear on ground installations for rail transit - Part 3-3".

Part. Voltage transformers for AC traction system-specific measurement, control, and protection devices.

This document has undergone significant structural adjustments compared to IEC 62505-3-3:2020. A comparison of the structural numbering changes between the two documents is provided below.

See Appendix A for the table of contents.

The technical differences between this document and IEC 62505-3-3:2020, and the reasons therefor, are as follows.

---The scope has been revised (see Chapter 1) to suit my country's technical conditions and facilitate the use of the standard;

---Added provisions to GB/T 2900.1, GB/T 2900.19, GB/T 2900.20 (see Chapter 3) and GB/T 7595-2017 (see Chapter 3).

6.12), GB/T 26218.1-2010 (see 4.1.4), GB/T 32580.5 (see 6.4, 6.5), TB/T 2805-2021 (see the normative references in 6.5) have been removed from IEC 62505-3-3:2020, specifically IEC 60850:2014 and IEC 62497.

1.2010, to adapt to my country's technological conditions and increase operability;

---Terminology and definitions have been changed, and the abbreviations in section 3.2 of IEC 62505-3-3:2020 (see Chapter 3) have been removed to adapt to my country's technical conditions.

Components that facilitate standard use;

---The normal and special usage conditions have been changed (see Chapter 4) to facilitate standard use;

---The ratings have been changed (see Chapter 5) to facilitate standard use;

---The design and structure have been modified (see Chapter 6) to facilitate standard use;

---The test methods have been modified (see Chapter 7) to facilitate the use of the standard;

---Inspection rules have been added (see Chapter 8) to facilitate the use of the standard;