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

GB/T 20840.11-2025

**Instrument transformers - Part 11: Additional requirements for
low-power passive voltage transformers
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is part 11 of GB/T 20840 "Transformers". GB/T 20840 has published the following parts.

- Part 1: General technical requirements;
- Part 2: Supplementary technical requirements for current transformers;
- Part 3: Supplementary technical requirements for electromagnetic voltage transformers;
- Part 4: Supplementary technical requirements for combined transformers;
- Part 5: Supplementary technical requirements for capacitor voltage transformers;
- Part 6: Supplementary general technical requirements for low power transformers;
- Part 7: Electronic voltage transformer;
- Part 8: Electronic current transformer;
- Part 9: Digital interface for transformers;

- Part 10: Supplementary technical requirements for low power passive current transformers;
- Part 11: Supplementary technical requirements for low power passive voltage transformers;
- Part 14: Supplementary technical requirements for DC current transformers;
- Part 15: Supplementary technical requirements for DC voltage transformers;
- Part 99: Terminology
- Part 100: Application Guidelines for Current Transformers for Power System Protection;
- Part 102: Ferroresonance in substations with electromagnetic voltage transformers;
- Part 103: Application of transformers in power quality measurements.

This document is modified to adopt IEC 61869-11:2017 "Transformers - Part 11: Supplementary technical requirements for low power passive voltage transformers" beg".

Compared with IEC 61869-11:2017, this document has many structural adjustments. Comparison table of structural changes between the two documents See Appendix 11A.

This document has many technical differences compared with IEC 61869-11:2017.

A list of these technical differences and their reasons is given in Appendix 11B.

The following editorial changes were made to this document.

- The order of symbols has been adjusted (see 3.7);
- The header format of Table 1101 and Table 1102 has been adjusted (see 5.6.1103.3);
- Correct "2% rated voltage" to "80% rated voltage" (see 5.6.1101.1);
- Correct "passive LPCT" to "passive LPVT" (see 6.11.601);
- Added the introductory words "6.13 of GB/T 20840.6-2017 and the following supplementary contents apply." (see 6.13);
- Correct "Table 10" to "Table 11", adjust the order of "Capacitance and dielectric loss factor measurement" in the table, and change the the clause number of "Appendix 6A, 6A.5" is corrected to "6A.6.1" (see 7.1.2);
- Added the introductory words "7.2.2 of GB/T 20840.1-2010 and the following supplementary contents apply." (see 7.2.2);
- Adjust "Table 5" in the last sentence to "Table 6" (see 7.2.2.1102);
- The description of Figure 1104 of IEC 61869-11:2017 has been adjusted;
- The position of Tsr1 time in Figure 1105 of IEC 61869-11:2017 has been corrected;

- Added introductory words and corrected "3.2.601" in Table 1106 to "3.3.614" (see 601.1);
- Correct "Kcor" in paragraph 1 to "KcorU" (see 11D.1);
- Added Appendix 11F, which includes the adjusted interpretation of IEC 61869-11:2017/ISH1.2021;
- Replace the "low power passive voltage transformer" that appears repeatedly in the text with the abbreviation "passive LPVT";
- The formulas in the whole text are numbered;
- Replaced IEC 61869-7 with the informative reference GB/T 20840.7 (see Chapter 1);
- Replaced IEC 60050-321:1986 with the informative reference GB/T 2900.94-2015 (see the source of 3.2.1101);
- Replaced IEC 61869-1:2007 with the informative reference GB/T 20840.1-2010 (see Table 1103 of 5.1102);
- Replaced IEC 61869-6:2016 with the informative reference GB/T 20840.6-2017 (see Note 1103 of 7.3.4, 7.4.1101 and 601.2);
- Replaced IEC 61869-6 with the informative reference GB/T 20840.6 (see 11D.1);
- Replaced IEC 61936-1:2010 with the informative reference GB/T 36271.1-2018 (see 10F.4).

Introduction

The purpose of formulating the transformer standard is to establish a set of optimal evaluation criteria for the transformer, from raw material selection, design, production, etc.

GB/T 20840 aims to specify the precautions applicable to transformers.

The principles and relevant rules to be followed in design, manufacturing, testing, operation and maintenance are planned to consist of 16 parts.

--- Part 1: General technical requirements. The purpose is to establish the requirements for the design, manufacture and production testing of various types of transformers.

General technical requirements to be followed.

--- Part 2: Supplementary technical requirements for current transformers. The purpose is to establish supplementary technical requirements applicable to various types of current transformers.

Require.

--- Part 3: Supplementary technical requirements for electromagnetic voltage transformers.