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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 18495-2025

Replacing GB/T 18495-2001

Resistance welding equipment - Transformers - Integrated transformers for welding guns

电阻焊设备 变压器 与焊钳一体式的变压器

(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 replaces GB/T 18495-2001 "Resistance welding and welding clamp integrated transformer" and is consistent with GB/T 18495-2001.

In addition to structural adjustments and editorial changes, the main technical changes are as follows.

--- Changed the types, sizes and electrical characteristics of 50 Hz and 60 Hz transformers (see Chapter 4, Chapter 3 of the 2001 edition);

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--- Changed the dimensioning of Figures 1 to 4 (see Chapter 4, Chapter 4 of the 2001 edition);

--- Added the index number description of Figures 1 to 5 (see Chapter 4);

--- Added requirements for steel threaded bushings (see Chapter 4);

--- Changed the thermal protection requirements and quoted GB/T 25301-2021 (see 5.2, 5.2 of the 2001 edition);

--- Changed the requirements for output current measuring devices and quoted GB/T 25301-2021 (see 5.3, 5.3 of the 2001 edition);

--- Changed the outer surface color requirements for 50Hz and 60Hz transformers (see 6.3, 6.2 of the 2001 edition);

--- Deleted the transportation requirements (see Chapter 7 of the 2001 edition);

--- Added the judgment criteria for mechanical strength test (see 8.2.1);

--- Deleted the test requirements for current measuring devices (see 9.2 of the 2001 edition);

--- Deleted the insulation test requirements for temperature switches (see 9.3 of the 2001 edition);

--- Deleted the dielectric strength test requirements (see 9.4 of the 2001 edition).

This document is equivalent to ISO 10656:2016 "Resistance welding equipment transformers and integrated welding clamp transformers".

A new chapter "Terms and Definitions" has been added to this document.

1 Scope

This document specifies the additional requirements for single-phase transformers for AC welding in GB/T 25301-2021. Some technical conditions in GB/T 25301-2021 are supplemented.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 25301-2021 Resistance welding equipment transformers General technical conditions for all transformers (ISO 5826. 2014, IDT)

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Note: GB/T 5465.2-2023 Graphical symbols for electrical equipment Part 2: Graphical symbols (IEC 60417 Database. 2023-03, IDT)

3 Terms and Definitions

There are no terms or definitions that require definition in this document.

4 Transformer dimensions and electrical characteristics

The size and electrical characteristics of the transformer should comply with the following.

Table 1 is applicable to 50Hz transformers;

Table 2 is applicable to 60Hz transformers;

Figures 1 and 2 apply to H-type transformers;

Figures 3 and 4 apply to J-type transformers.

The cooling water flow rate is 4L/min.

The load duration of the transformer shall not exceed 20% (see Appendix A).

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