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PEOPLE'S REPUBLIC OF CHINA**

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Replacing GB/T 32825-2016

**Technical parameters and requirements for three-phase
dry-type tridimensional wound core power transformers**

三相干式立体卷铁芯电力变压器技术参数和要求

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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 32825-2016 "Technical parameters and requirements for three-phase dry-type three-dimensional wound core distribution transformers" and Compared with GB/T 32825-2016, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- Changed the scope, the applicable voltage level of the product has been increased to 20kV and 35kV, and the core material has been expanded to electrical steel and amorphous alloy Gold (see Chapter 1, Chapter 1 of the 2016 edition);
- Changed the performance parameters to further reduce the loss parameters and loss level of 6kV and 10kV non-excitation voltage regulating distribution transformers The codes were changed from "Type 11", "Type 12" and "Type 13" to "Type 12", "Type 14" and "Type 18" (see Table 1, 2016 Edition). Table 1);
- Added 6kV and 10kV off-excitation voltage regulating power transformers and on-load voltage regulating distribution transformers, 20kV off-excitation voltage regulating Distribution transformers, 35kV off-excitation voltage-regulating distribution transformers, off-excitation voltage-regulating power transformers and on-load voltage-regulating power transformers Performance parameters (see Table 2 to Table 10);
- Changed the sound power level limits for 6kV and 10kV transformers, and added the sound power level limits for 20kV and 35kV transformers Limits (see Tables 11 to 14, Table 2 of the 2016 edition);

- Changed the technical requirements, deleted the "Schematic diagram of the base installation positioning hole device", and adjusted the hole center distance size; added The insulation resistance value, the no-load loss increment of the transformer with amorphous alloy core before and after the short-circuit current impact, and the transformer The inlet and outlet lines need to add requirements on how to calculate the load loss when extending the busbar (see 5.3, 5.8, 5.11, 5.12, 5.8 of the 2016 edition);
- Changed the inspection rules and methods, adjusted the requirements for measuring the winding resistance unbalance rate, added on-load tap changer test and temperature Supplementary test requirements for the lifting test (see 6.2, 6.4, 6.5, 6.2 of the 2016 edition).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Electrical Equipment Industry Association.

This document is under the jurisdiction of the National Technical Committee on Standardization of Transformers (SAC/TC44).

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This document was first published in 2016 and this is the first revision.

Three-phase dry type three-dimensional wound core power transformer Technical parameters and requirements

1 Scope

This document specifies the performance parameters, technical requirements, marking, Requirements for packaging, transportation and storage, and descriptions of inspection rules and methods.

This document is applicable to rated capacity of 30kVA and above, rated frequency of 50Hz, indoor use, core material is electrical steel and non Crystalline alloy, voltage levels of 6kV, 10kV, 20kV and 35kV non-excitation voltage regulation and load voltage regulation three-phase dry three-dimensional winding iron core power Manufacture of transformers.

2 Normative references

GB/T 191

GB/T 1094.1

GB/T 1094.11

GB/T 1094.12

GB/T 2900.95

GB/T 5273

GB/T 5465.2

GB/T 22072

3 Terms and definitions

The terms and definitions defined in GB/T 1094.1, GB/T 1094.11, GB/T 2900.95 and GB/T 22072 and the following terms and definitions apply This document.

3.1

The core is arranged in a triangular shape and is composed of three single-frame wound cores of the same geometric size.

3.2

An electric transformer with a three-dimensional wound iron core as its magnetic circuit.

4 Performance parameters

4.1 Rated capacity, voltage combination and tapping range, connection group number, no-load loss, load loss, no-load The load current and short-circuit impedance should comply with the requirements of Table 1 to Table 4.

Note. The transformer cooling methods corresponding to the performance parameters in Tables 1 to 4 are all self-cooling (AN).