

ICS 27.100

F 24

File No.: 15182-2005



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

中华人民共和国电力行业标准

DL/T 911-2004

**Frequency Response Analysis on Winding
Deformation of Power Transformers**

电力变压器绕组变形的频率响应分析法

Issued on December 14, 2004

Implemented on June 1, 2005

**Issued by National Development and Reform Commission of the
People's Republic of China**

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Foreword

In accordance with the requirements of the document - "Notice on confirming the formulation and revision planning of power industry standards in 1999" (Guo Jing Mao Dian Li [1999] No.40) issued by the Former State Economic and Trade Commission, this standard is formulated, with a view to regulating and guiding field application of the frequency response analysis on winding deformation of power transformer.

Frequency response analysis, used to test the deformation of transformer winding, features in high testing sensitivity and convenient field service, and no need of transformer hood suspending, and has been widely used in the power sector.

Annex A is normative and Annex B is informative in this standard.

This standard is proposed by the China Electricity Council (CEC).

The technical committee for standardization of high voltage test technology in power sector governs this standard and is in charge of the explanation.

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Frequency Response Analysis on Winding Deformation of Power Transformers

1 Scope

This standard specifies the basic requirements in the frequency response analysis on deformation of transformer winding.

This standard is applicable to power transformers of 6kV or higher voltage class, and other transformers for special purpose.

2 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. For dated reference, subsequent modification (including corrected content) to, or revisions of, any of these publications do not apply. However, all parties coming to an agreement according to this standard are encouraged to study whether the latest edition of these documents is applicable. For undated references, the latest edition of the normative document referred to applies.

GB 1094.1 Power transformers - Part 1: General (eqv IEC 60076-1: 1993)

GB 1094.5 Power transformers - Part 5: Ability to withstand short circuit (neq IEC 60076-5: 1976)

DL/T 596 Preventive test code for electric power equipment

3 Terms and definitions

For the purpose of this standard, the following terms and definitions shall apply.

3.1

Winding deformation

It is referred to axial or radial dimension variation of power transformer winding caused under mechanical force or electrodynamic action, and usually appears as partial

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