

RDRB-IV Sweep Frequency Response Analyser

The Sweep Frequency Response Analyser is used for power transformers with voltage grades of 6kV above and other transformers with a special purpose. The power transformer is inevitably vulnerable to the impulse of various fault short-circuit currents or physical collisions in operation and transportation. The transformer windings may lose stability under the powerful electro-dynamic force exerted by such short-circuit current, which could result in permanent deformations such as local distortion, swell or dislocation and will severely affect the safe operation of the transformer. Deformation of transformer windings is measured with frequency response analysis method according to national standard DL/T911-2016/IEC60076-18 for the electric power industry, i.e. detect amplitude-frequency response characteristic of each transformer winding and make vertical or horizontal comparison of the detection result to judge possible deformation of the transformer winding based on change of amplitude-frequency response characteristics.



Product Features

1. The frequency sweep method measures transformer windings' characteristics. Deformations of windings, such as distortion, swell, or displacement of 6kV and above transformers, are measured by detecting the amplitude-frequency response characteristics of each winding, not requiring lifting of the transformer enclosure or disintegration.
2. Quick measuring of a single winding is within 2 minutes.
3. High-frequency accuracy, higher than 0.001%.
4. Digital frequency synthesis with higher frequency stability.

5. 5000V voltage isolation fully protects the safety of the testing computer.
6. Analysis software has powerful functions, and software and hardware indicators satisfy national standard DL/T911-2016/IEC60076-18.
7. Software management is humanised with a high degree of intelligence. After setting the parameters, you only need to click one key to complete all measurements.
8. The software interface is concise and vivid, with clear menus for analysis, saving, report export, print, etc.



Product specifications and technical parameters

1. Measuring speed: 1 min- 2 min for single-phase winding
2. Output voltage: V_{pp} -25V, adjusting automatically in test
3. Output impedance: 50Ω
4. Input impedance: $1M\Omega$ (the response channel is built with 50Ω matching resistance)
5. Frequency sweep scope: 10Hz-2MHz
6. Frequency accuracy: 0.001%
7. Frequency sweep manner: linear or logarithmic, frequency sweep interval and number of sweep points are freely settable
8. Curve display: Mag-freq. curve
9. Measuring dynamic range: -100dB~20dB
10. Power source: AC100-240V 50/60Hz



Main Features of Test Analysis Software

1. Use a Windows platform compatible with Windows 2000/XP/Windows 7/windows 8/Windows10.
2. Use the database to save test data and render concise and easy data management.
3. Able to load 9 curves simultaneously, automatically calculate each curve's parameters, and diagnose winding deformations to provide the reference diagnosis conclusion.
4. The powerful software management function fully accounts for site use demand. Measuring data is automatically saved and exported to form a Word version test report

(requiring the installation of relevant Office software) or a JPG photo report to facilitate the user's export of the test report.

5. The software has distinctive humanised features. Measuring conditions are mostly options which eliminate the need for many inputs and facilitate easier operation.
6. The software is highly intelligent. After connecting input and output signals, you only need to click one key to complete all measurements.
7. The software interface is concise, vivid and practical.



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