DTTS

DISTRIBUTION TRANSFORMER TEST SYSTEM

www.haefely-hipotronics.com
Distribution transformers are “mass production equipment”; high testing-throughput is a must without compromising quality. Our DTTS aims at a highly automated test procedure using well-prepared sequences and minimal manual intervention to keep the test duration of a single transformer as short as possible and to avoid human errors.

Our Distribution Transformer Test System (DTTS) has been designed with these requirements in mind, as a multifunctional tool for testing distribution transformers. All supported tests are performed in conformity with IEC, IEEE/ANSI and GOST.

Focus is on flexibility and maximum testing throughput, while ensuring quality and accuracy, continuing Haefely’s philosophy of more than 110 years.

**BENEFITS**

- **Integrates all routine tests** within one unique system
- Fulfills all international standards (IEC, IEEE/ANSI and GOST).
- Reduced testing time
- Plug and Play
- Centralized controlling and reporting
- Easy integration into existing production lines
**FEATURES**

- State of the art **frequency converter**
- **The highest accuracy** and the only completely calibrated and certified measurement system
- The lowest system-noise level allowing highly sensitive Partial Discharge measurements
- Powerful operating software with **intuitive interface and automated test sequences**
APPLICATIONS

It is unique in the market, integrating all routine tests within one compact system. The DTTS is a complete turnkey solution assuring the customer 100% satisfaction.

The DTTS is capable of testing both dry type and oil immersed distribution transformers.

Low voltage capacitor bank switched automatically, reduces mains power consumption.
PRODUCT OVERVIEW

Testing Capability

- High voltage side: 6 kV .. 36 kV
- Low voltage side: 110 V .. 2100 V

NOTE:

For higher transformer ratings, refer to our PTTS range

<table>
<thead>
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<th>Transformer Power</th>
<th>1 Ph</th>
<th>533 kVA</th>
<th>DTTS 1-533</th>
<th>DTTS 3-500</th>
<th>DTTS 3-1600</th>
<th>DTTS 3-2500</th>
<th>DTTS 3-5000</th>
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</thead>
<tbody>
<tr>
<td>3 Ph 500 kVA</td>
<td>●</td>
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<tr>
<td>3 Ph 1'000 kVA</td>
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<td>3 Ph 1'600 kVA</td>
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<tr>
<td>3 Ph 2'500 kVA</td>
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● Fulfills all routine tests AND heat run
○ Fulfills all routine tests
FREQUENCY CONVERTER - HEART OF THE DTTS

Thanks to our cutting edge frequency converter based front end, the DTTS is smaller, quieter, more flexible and maintenance free compared to a traditional motor generator based system.

Hardware Benefits

- **Testing at any frequency possible**
  (50Hz to 200Hz)

- **Active harmonic compensation** regulates the $\text{THD}_u \leq 5\%$ and to symmetric test voltage, even on highly non-linear loads.

New: Frequency Converter compatible with PD measurement

- Our unique filter topology allows **highly sensitive partial discharge measurements**, even for cast resin transformers.

TMS-560
TRANSFORMER LOSS MEASURING SYSTEM

Our TMS-560, based on the TMS-580 known worldwide for accuracy loss measurement, guarantees the most accurate results also at low power factor

- **The only calibrated and certified measurement system** on the market, fulfilling IEC and IEEE requirements
APPLICATION SOFTWARE

Our DTTS/SWR software, based on years of collaboration with many customers, performs complete automated test sequences from a single computer.

- Advanced test procedure with Pass/Fail functionality
- Automated calculation of all results and reporting in a single document
- Built-in alarms for safe operation
- Transformer templates for easy test object data input
- Graphical DUT connection support

Automated report generation. All test results in a single document.