ABB Transformer Remanufacturing and Engineering Services (TRES) proudly offers comprehensive on-site transformer testing services with our high-voltage mobile test system.

**ABB TrafoSiteTesting™ is the transformer test floor that comes to your site**

The ABB TRES mobile high-voltage power transformer test system enables ABB TRES to perform a full range of testing on all types and brands of transformers, reactors, cables and other HV equipment. This three-phase test system is based on a static frequency converter which is especially designed for performing testing according to IEEE Standard C57.12.00 and IEC 60060-3. This system verifies the condition of a transformer, including the insulation system, and allows informed decision making. The system is operated by personnel with many years of experience in HV testing and power system equipment analysis. Measurements taken with the ABB TRES mobile high voltage test system are also evaluated by ABB TRES transformer diagnostic experts who often have access to transformer OEM internal assembly details and modeling tools.

**Capabilities**
- Induced voltage testing (to date, transformers as large as 765kV and more than 1000 MVA have been tested)
- Electrical and acoustical partial discharge measurements
- Applied voltage testing on transformers up to 500 kV line to ground

- No load losses at 60 Hz and 50 Hz
- Failure localization
- Short-circuit impedance
- Load testing
- Frequency range 15Hz to 200 Hz

**Additional test offering:**
- Dielectric frequency response (DFR) tests
- Sweep frequency response (SFRA) tests
- Thermo-vision scans
- All routine electrical tests

**Applications**
- After shipment and installation of new or repaired transformers
- After TrafoSiteRepair
- During maintenance outages on high-value, important and critical transformers
- Before bringing a spare transformer into service
- After a field incident to verify suitability of transformer to return to service
- After a failure for diagnosis and fault detection
- Anytime applied voltage testing is needed on cables, breakers and other HV equipment.
The ABB TRES mobile test system is adaptable
All components are installed in a standard 40 ft. ISO container, facilitating transport to anywhere in the world. The system can be set up while remaining on the transport trailer. Set up only takes a few hours and testing can usually begin the same day the equipment arrives on site.
Significant dimensions of the ABB TRES mobile test system are:
- Trailer length 53 ft. (length during testing 70 ft.)
- Width 8 ft
- Height on trailer 13.4 ft. (system only 8.5 ft. on ground)
- Weight 50 tons US (Test System only weight 31 tons US)

Site requirements:
- The ABB TRES mobile test system requires a suitable compacted surface for egress and parking
- The ABB TRES mobile test system requires 480 volt, 3 phase, 500kVA power. Large transformers require additional power.
- The ABB TRES mobile test system must be able to park within 82 feet of each transformer to be tested unless special provisions are made prior to deployment.

Customer success story
A 30-year-old spare generator step-up (GSU) transformer (315 MVA, 400/21 kV) out of operation for more than five years needed to be put into service due to a problem with the main GSU transformer. ABB performed a high-voltage test to prove the transformer was in good condition prior to energization.

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