

High Current / Voltage Laboratory

Tests & Services

ASD offers a high current / voltage laboratory capable of providing several services and performing series of tests.

Services

The services offered by our high Current / Voltage Laboratory include:

- Arrester Testing
 - Ground lead disconnect testing
 - Impulse Testing
 - Discharge voltage at 10 KA up to 100 KA
 - Recovery voltage to 40 KA
 - Wave shape (4/10, 3/90, 8/20 10/350 MS, 2 ms)
- Applied (Hi-Pot) Testing
- Testing of distribution transformers
 - No-Load loss test
 - Load loss test
 - Induced test
- Evaluation and analysis of transformer losses
- Load cycle test for under ground cables
- Load cycle test for cables' accessories



- High current Impulse testing
- High voltage Impulse testing
- Field testing: substation inspection
- Partial discharge testing
- Testing instrument transformers
- Testing and evaluation of dielectric materials
- Testing of bushings
- Testing of disconnecting switches
- Radio interference voltage (RIV) testing

Test Categories

Our Lab offers the following major test categories:

- Current impulse
- Lightning impulse:
 - Voltage withstand test (full and chopped wave)
- Switching impulse
- 60 Hz voltage
- DC voltage
- Insulation Loss test



Automation Systems & Diagnostics, Inc
1021 Davis Drive, Apex, NC 27523
Phone: 919-842-2613, Fax: 919-380-1054
www.asdpower.com

High Current / Voltage Laboratory

Tests & Services

- Partial Discharge test
- Radio Influence voltage (RIV) test
- Pollution testing for distribution equipment (clean fog and salt fog methods)
- Capacitance and tan delta measurement
- Conformance to standards



Test Equipment

Check below the major equipment provided by the lab to perform each test.

Current Impulse Test Equipment:

- Multi stage Impulse generator 270 KV, 640 KJ
- Impulse generator 60 KV, 10 KJ
- Impulse generator 45 KV, 60 KJ

Impulse Voltage Test Equipment:

- Impulse generator: 300 KV, 15 kJ
- Damped capacitive voltage divider:

- Mixed (R,C,RC) voltage divider: 400 kV (lightning/switching impulse)
- Capacitor voltage divider: 800 kV
- Digital oscilloscope

AC Test Equipment:

Test transformer 200 KV, 150 mA cont.

- Test transformer: 45 kV, 2.22 A Cont.
- Test transformer: 100 kV, 75 mA cont.
- 37.5 kVA, 400 Hz motor generator
- Capacitive voltage divider: 400 kV
- Damped capacitive voltage divider: 100 kV
- Mixed (R,C,R) voltage divider: 400 kV
- Partial discharge detector
- Radio interference voltage (RIV) meter
- Indirect calibration voltage divider: 300 KV

DC Voltage Test Equipment:

- DC transformer: 150 kV, 100 mA
- Resistive voltage divider: 150 kV

Lab Layout

- Indoor HV lab
- Outdoor Test Area (under construction)
- 1.3 acres Land



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